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

Sections of this report have been redacted to delete information that SEC believes is non-public and confidential

September 25, 2008
Report No. 446-A

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

OFFICE OF
INSPECTOR GENERAL

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 September 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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Andrew Donohue, Director, Division of Investment Management
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Rick Hillman, Managing Director of Financial Markets and Community Investment, GAO

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

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[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]

[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) decided to transfer the responsibility for conducting inspections of the consolidated entities from OCIE to TM. The timing of the actual transfer is discussed in more detail later in this report. OCIE retained (within the Commission) responsibility for conducting inspections of the CSEs' 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 [77] in March 2008, TM inquired about whether Bear Stearns was contemplating capital infusions, but does not suggest that TM exerted influence over Bear Stearns to raise additional capital.[78] The OIG expert was unable to find 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.

, 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 Bear Stearns' secured borrowings were initially for terms of , with the goal of extending the terms to By May 2007, Bear Stearns' short-term borrowing was secured and by September 2007, it was secured.[83] Finally, by March 2008, Bear Stearns' short-term borrowing was secured.[84] Nevertheless, Bear Stearns was still unable to obtain adequate secured funding to save the firm in March 2008.

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[80] In a tri-party repo arrangement, a third party 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.

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. , Bear Stearns it had developed a 60-day cash inflow and outflow analysis that it could use to track cash flows on a daily basis.[93] 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. 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.

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

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.

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

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.
> 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,

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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>.

TM staff even found that the amount of mortgage securities was occasionally
For instance,

Furthermore, according to TM's own documentation,

> 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 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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[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 [110] nor did it

Further, OCIE found

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

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[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>.

At a meeting with TM on September 20, 2006, Bear Stearns' risk managers provided TM with

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.

[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.

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.

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[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.
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 that the additional modeling assumptions incorporated into VaR models added much to these discussions.

[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 .

, 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.

[119] At exactly this point in time, Bear Stearns had a tremendous need to rethink its mortgage models and lacked key senior risk

modelers to engage in this process

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

[redacted][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).

[redacted]

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.

[redacted]

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 "

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.

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.

The OIG expert concluded 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,

[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.

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[131] 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 [redacted] down by [redacted], after writing the residuals down by [redacted].[132] Additional write-downs the following month brought total losses on second lien inventory to [redacted] and total losses on residential mortgage backed securities and structured products to [redacted] million.[133] The write-downs during this quarter were mostly on [redacted] by [redacted].[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, [redacted] risks [redacted]

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. T[redacted] 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

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.

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.

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.

. 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.

, the OIG expert found no evidence 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.

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

[redacted][9] 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.

[redacted]. 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

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

[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.

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 suggest that Bear Stearns may have been taking a smaller capital charge than Basel II requires. In addition, 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 .o BSAM's "high grade" fund. The loan was collateralized with assets estimated to be worth 3y the end of June 2007, asset sales had reduced the amount loaned to the fund down to

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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 collateral was illiquid and would take time to liquidate, Bear Stearns should have valued the collateral conservatively, reflecting appropriate valuation adjustments.

[150] Sot

[redacted] 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, [redacted]

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

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 .

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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[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.

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.

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 [illegible]

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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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

In March 2007, Chairman Cox decided to transfer inspection responsibility from OCIE to TM (responsibility was transferred to TM in March 2007 for four of the five firms, and for the last firm (Morgan Stanley) following the completion of the ongoing OCIE exam of that firm in September 2007). 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-

. TM stated that after Chairman Cox transferred the inspection authority from OCIE to TM, 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,
Bear Stearns' assertions that it had addressed this issue. Further, OCIE

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.

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 until March 2007 for all the firms except Morgan Stanley, which OCIE retained until September 2007, allowing OCIE to complete its inspection.

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

Bear Stearns' VaR models. 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

without first completely verifying the information it was

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[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 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 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 . 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 March 2007, Chairman Cox decided to transfer inspection responsibility from OCIE to TM (responsibility was transferred to TM in March 2007 for four of the

[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.

five firms, and for the last firm (Morgan Stanley) following the completion of the ongoing OCIE exam of that firm in September 2007). However, despite this organizational 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

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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>.

two offices should inform the Chairman's Office of any disagreement(s) so that the issue(s) can be resolved.

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 , approximately months after Bear Stearns submitted the filing. Another CF staff accountant completed a second level review on September 27, 2007, nearly 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]

[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

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]

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time every three years.

[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.

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 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 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.

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[188] Some of the firms are also subject to the Investment Advisers Act of 1940 and the Investment Company 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. FinancialInstitutions 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 March 2007, Chairman Cox decided to transfer inspection responsibility from OCIE to TM (responsibility was transferred to TM in March 2007 for four of the five firms, and for the last firm (Morgan Stanley) following the completion of the ongoing OCIE exam of that firm in September 2007). However, as of mid-September 2008, TM staff had not completed any inspections in the 18 months

since the Chairman's decision in March 2007. 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.

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

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

Acronyms

BDRA	Broker-Dealer Risk Assessment
Bear Stearns	The Bear Stearns Companies, Inc.
BSAM	Bear Stearns Asset Management
CF	Division of Corporation Finance
CFP	Contingency Funding Plan
Commission	Securities and Exchange Commission
CSE	Consolidated Supervised Entity
EU	European Union
FINRA	Financial Industry Regulatory Authority
Federal Reserve	Board of Governors of the Federal Reserve System
FRBNY	Federal Reserve Bank of New York
GAO	Government Accountability Office
JP Morgan	JP Morgan Chase & Co
Lehman Brothers	Lehman Brothers Holdings Inc.
LTCM	Long-Term Capital Management
Merrill Lynch	Merrill Lynch & Co
MOU	Memorandum of Understanding
OCIE	Office of Compliance Inspections and Examinations
OIG	Office of Inspector General
ORA	Office of Risk Assessment

OTS	Office of Thrift Supervision
PCAOB	Public Company Accounting Oversight Board
PWG	President's Working Group
Repo	Repurchase Agreements
SOX	Sarbanes-Oxley Act of 2002
SRO	Self Regulatory Organizations
TM	Division of Trading and Markets
U.S.	United States
VaR	Value at Risk

Congressional Audit Request

United States Senate

COMMITTEE ON FINANCE

WASHINGTON, DC 20510-6200

April 2, 2008

Via Electronic Transmission

The Honorable David Kotz
Inspector General
US Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549-2736

Dear Inspector General Kotz:

According to regulatory filings and a December 2007 *Wall Street Journal* article, the SEC Enforcement Division declined to bring a case against Bear Stearns for improperly valuing mortgage-related investments. Given the later collapse and federally backed bail-out of Bear Stearns, Congress needs to understand more about this case and why the SEC ultimately sought no enforcement action.

Moreover, I am particularly interested in this case in light of the SEC's failed investigation of Pequot Capital Management. As you know, in the final report of the Senate's inquiry into that matter, we found that senior SEC officials showed extraordinary deference to a particular witness because of his "prominence" as the head of Morgan Stanley.

Request for Investigation

In light of my earlier investigation I need to know whether the same problems identified in the Pequot investigation were repeated in the Bear Stearns case. Accordingly, I request that you conduct a thorough investigation into the facts and circumstances surrounding the decision to not pursue an enforcement action against Bear Stearns. Please provide a final report on whether there was any improper action or misconduct relating to SEC investigation of Bear Stearns and its decision to close the investigation. The report should also describe and assess:

1. the nature, extent, and propriety of communications between Bear Stearns executives or their representatives and senior SEC officials;

2. the decision-making process which led to the SEC's failure to bring an enforcement action following the drafting of a Wells notice;

3. the reasons for declining to proceed with an enforcement action; and

4. the degree to which more aggressive action by the Enforcement Division may have led to an earlier and more complete understanding of the issues that contributed to the collapse of Bear Stearns.

Request for Audit

In addition to this investigative request, I would also like your office to follow-up on previous audit work relevant to issues surrounding Bear Stearns. The Division of Trading and Markets (Division) is responsible for regulating the largest broker-dealers and the associated holding companies. Offices within the Division are staffed with accountants and economists who are responsible for reviewing the market and credit-risk exposures of the broker dealers. Their review includes assessing broker-dealers' quarterly financial filings, ensuring broker-dealers are meeting net-capital requirements and that other financial ratios, such as liquidity ratios, are adequate. There is a special emphasis in reviewing the five very large broker-dealers, including Bear Stearns, known as the Consolidated Supervised Entity (CSE) Program. The Division staff exercises additional oversight of these firms and examines their risk models.

I understand that the OIG conducted a prior audit of these responsibilities in 2002. Please provide an update of the previous findings, determine whether earlier recommendations were implemented, and analyze the current function of these offices. The review should include a description and assessment of their missions, how the programs are run, their policies and procedures, the adequacy of any reviews conducted regarding Bear Stearns, and recommendations for improvements in the process.

If you have any questions about these requests, please contact Jason Foster or Emilia DiSanto at (202) 225-4515.

Sincerely,

Charles E. Grassley
Ranking Member

Curriculum Vitae (Albert "Pete" Kyle)

CURRICULUM VITAE
Albert S. "Pete" Kyle

Date: February 25, 2007
Current Position: Charles E. Smith Professor of Finance, Robert H. Smith School of Business
Business Address: University of Maryland, 4433 Van Munching Hall, College Park, MD 20742
Business Phone: 301-405-9684 (UMD voice), 301-314-5828 (UMD fax)
E-Mail: akyle@rhsmith.umd.edu

EDUCATION

- University of Chicago, 1977-1979, 1980-1981. Ph.D., Economics, 1981.
  Dissertation: "An Equilibrium Model of Speculation and Hedging."
  Advisors: José Scheinkman (chair), Robert E. Lucas, Lester Telser.
- Nuffield College, Oxford University, 1976-1977. Field: Economics. Advisor: James Mirrlees.
  Met all requirements for B.Phil. degree (now called M.Phil.) except two-year residency requirement.
- Merton College, Oxford University, 1974-1976. B.A. Math and Philosophy, 2nd class honors, 1976.
- Davidson College, 1970-1974. B.S. Mathematics, summa cum laude.

CAREER

- Charles E. Smith Professor of Finance (with tenure), Robert H. Smith School of Business, University of Maryland, August 2006 to Present
- Professor of Finance and Economics (with tenure), Duke University, Fuqua School of Business and Department of Economics, January 2002 - 2006 (appointment predominantly in Fuqua School of Business)
- American Standard Visiting Professor, Said Business School, Oxford University (St. Edmund Hall), June 2004, June 2005, June 2006.
- Visiting Scholar, Princeton University, Department of Economics, Fall 2004 (while on sabbatical leave from Duke University).
- Consultant, Morgan-Stanley and Company, December 1996 – December 1998, full time while on unpaid leave from Duke University, Proprietary trading research.
- Associate Professor of Finance (with tenure), Duke University, Fuqua School of Business, July 1992-July 2002 (on unpaid leave for calendar years 1997,1998).
- Associate Professor of Finance (with tenure), University of California at Berkeley, Haas School of Business, July 1990-June 1992.
- Visiting Scholar, Duke University, Fuqua School of Business, September 1991-June 1992 (on sabbatical leave from UC Berkeley Fall 1991).
- Assistant Prof. of Finance, Univ. of California at Berkeley, Haas School of Business, July 1987-June 1990.
- Assistant Prof. of Economics and Public Affairs, Woodrow Wilson School, Princeton University, 1981-87.
- Visiting Fellow, Yale School of Organization and Management, Spring 1984 (on sabbatical leave from Princeton University).
- Visiting Research Fellow, Centre of Policy Studies, Monash University, Australia, Fall 1983 (on sabbatical leave from Princeton University).
- Pit Trading and Risk Management, Goodman-Manaster and Company, Chicago, 1979-1980.
- Staff Economist, Chicago Board of Trade, part-time, 1978-1979.

PUBLICATIONS IN REFERRED JOURNALS

(In co-authored articles, all authors have equal seniority and approximately equal contribution.)

- Avinash K. Dixit and Albert S. Kyle, "The Use of Protection and Subsidies for Entry Promotion and Deterrence," American Economic Review, Vol. 75, No. 1, 1985, pp. 139-152.
- Albert S. Kyle, "Continuous Auctions and Insider Trading," Econometrica 53, 1985, 1335-1355.
- Albert S. Kyle, "Improving the Performance of the Stock Market," California Management Review, 30:4, Summer 1988, 90-114.
- Peter R. Hartley and Albert S. Kyle, "Equilibrium Investment in an Industry with Moderate Investment Economics of Scale," The Economic Journal, 99:396, June 1989, 392-407.
- Peter R. Hartley and Albert S. Kyle, "Real Rates and Home Goods: A Two Period Model," The Economic Record, 64:186, September 1988, 168-177.
- Albert S. Kyle, "Informed Speculation with Imperfect Competition," Review of Economic Studies 56:3, No. 187, July 1989, 317-356.
- Albert S. Kyle and Jean Luc Vila, "Noise Trading and Takeovers," Rand Journal of Economics, Vol. 22, No. 1, Spring 1991, pp. 54-71.
- John Y. Campbell and Albert S. Kyle, "Smart Money, Noise Trading, and Stock Price Behavior," Review of Economic Studies 1993, 60 pp. 1-34.
- Albert S. Kyle and Albert Wang, "Speculation Duopoly with Agreement to Disagree: Can Overconfidence Survive the Market Test?" Journal of Finance, volume LII, number 5, December1997, pp. 2073-2090.
- Albert S. Kyle and Wei Xiong, "Contagion as a Wealth Effect," Journal of Finance, volume LVI, No. 4, August 2001, pp. 1401-1440.
- Albert S. Kyle, Hui Ou-yang, and Wei Xiong, "Prospect Theory and Liquidation Decisions," Journal of Economic Theory, Elsevier, vol. 127 (1), July 2006, pp. 273-288.

CHAPTERS IN BOOKS

- Albert S. Kyle, "Imperfect Competition, Market Dynamics, and Regulatory Issues," in Financial Markets and Incomplete Information: Frontiers of Modern Financial Theory: Vol. 2, edited by Sudipto Bhattacharya and George M. Constantinides, Rowman and Littlefield, 1989, 153-161.
- Albert S. Kyle, "A Theory of Futures Market Manipulations," The Industrial Organization of Futures Markets, edited by Ronald W. Anderson. Lexington, Mass., Lexington Books, 1984, pp. 141-173, also reprinted in Paul Weller (editor), The Theory of Futures Markets, Blackwell, 1992 pp. 272-303.

PUBLICATIONS IN UNREFEREED CONFERENCE VOLUMES

- Albert S. Kyle, "Trading Halts and Price Limits," The Review of Futures Markets, 7:3, 1988, 426-434.
- Albert S. Kyle, "Market Structure, Information, Futures Markets, and Price Formation," in International Agricultural Trade: Advanced Readings in Price Formation, Market Structure, and Price Instability, edited by Gary G. Storey, Andrew Schmitz, and Alexander H. Sarris, Boulder, Westview, 1984, pp. 45-64.
- Albert S. Kyle, "Discussion of 'The Pricing of Oil and Gas: Some Further Results'," (by Merton Miller and Charles Upton), The Journal of Finance, Papers and Proceedings, Vol. 40, No. 3, July 1985, 1018-1020.
- Peter R. Hartley and Albert S. Kyle, "The Economics of Medical Insurance," in Medical Care and Medical Ethics, edited by C.L. Buchanan and E.W. Prior. Winchester, Mass., Allen & Unwin Inc., 1985, pp. 77-104.

MISCELLANEOUS PUBLISHED ARTICLES

- Albert S. Kyle and Terry A. Marsh, "Computers and the Crash: Is Technology the Problem or the Solution?" Institutional Investor Financial Technology Forum 2, June 1988, pp. 6-7.

UNPUBLISHED PAPERS

- Albert S. Kyle, "A Rational Expectations Model of Equilibrium in Speculative Markets with Imperfect Liquidity and Costly Information," Thesis seminar and job-market paper, 1980.
- Albert S. Kyle, "The Efficient Markets Hypothesis and the Supply of Speculative Services," manuscript, 1982.
- Albert S. Kyle, "An Equilibrium Model of Speculation and Hedging," University of Chicago Ph.D. Dissertation (Economics), 1981.
- Peter R. Hartley and Albert S. Kyle, "Equilibrium in a Model with Lumpy Investment," manuscript (now subsumed in "Equilibrium Investment in an Industry with Moderate Investment Economies," 1983.
- Avinash K. Dixit and Albert S. Kyle, "On the Use of Trade Restrictions for Entry Promotion and Deterrence," Economics Discussion Paper No. 56, Woodrow Wilson School, Princeton University, 1983.
- Albert S. Kyle, "Equilibrium in a Speculative Market with Strategic Informed Trading," (revised as "Informed Speculation with Imperfect Competition). 1983.
- Albert S. Kyle, "Informational Efficiency and Liquidity in a Continuous Auction Futures Market," Centre for the Study of Futures Markets, Columbia Business School, Working Paper Series #CSFM-75, 1984.
- Albert S. Kyle, "An Explicit Model of Smart Money and Noise Trading," manuscript (now subsumed in "Smart Money, Noise Trading, and Stock Price Behavior), 1985.
- Albert S. Kyle, "An Intuitive Introduction to Agency Theory with Applications to Money Management," Q-Group Talk, manuscript, April 1989.
- Albert S. Kyle and Ailsa Roell, Comments on Recent Developments and Proposals Concerning Dealing Practices in the UK Equity Market," manuscript, 1989.
- Albert S. Kyle and Terry A. Marsh, "On the Economics of Securities of Clearing and Settlement," manuscript, 1993.
- Albert S. Kyle, "On Incentives to Acquire Private Information with Continuous Trading," manuscript, 1985.
- Albert S. Kyle, "Dealer Competition Against an Organized Exchange," manuscript, June 1987.
- Albert S. Kyle, "Market Failures and the Regulation of Financial Markets," manuscript, 1992.
- Gerard Gennotte and Albert S. Kyle, "Intertemporal Insider Trading with a Smooth Order Flow," manuscript, 1993.
- Albert S. Kyle and Tao Lin, "Continuous Speculation with Overconfident Competitors," manuscript, 2002.
- Albert S. Kyle and Tao Lin, "An Analysis of Excessive Trading Volume with Different Beliefs," manuscript, 2002.
- Albert S. Kyle and Rujing Meng, "Strategic Acquisitions and Investment in a Duopoly Patent Race under Uncertainty," manuscript, 2003.
- Ming Guo and Albert S. Kyle, "An Intemporal Asset Pricing Model with Strategic Informed Trading and Risk-Averse Market Makers," manuscript, 2004.
- Albert S. Kyle, "A Two-Factor Model of Value and Growth with Adjustment Costs," manuscript, 2004.
- Alex Boulatov and Albert S. Kyle, "Uniqueness of Equilibrium in the Single-Period Kyle-85 Model," manuscript, 2005.

3

RESEARCH CONTRACTS AND GRANTS

- Research Consultant, Bell Laboratories, 1982.
- Research Associate, Center for the Study of Futures Markets, Columbia Business School, two months of summer support, 1983.
- Principal Investigator, NSF Grant (Information Science): "Organized Exchanges, Dealer Markets, and Anonymous Trading," Princeton University, Two summers of summer support, 1985, 1986.
- Academic Visitor, Federal Reserve Bank, Washington, D.C., June 6-10, 1992.
- Academic Visitor, Federal Reserve Bank, Atlanta, GA, 5 days, 2003.

FELLOWSHIPS, PRIZES, AND ACADEMIC AWARDS

- Phi Beta Kappa, Davidson College, 1974.
- Honorary Postmastership, Merton College, 1976-1977.
- George Webb Medley Prize in Economics, Merton College, Oxford University, 1976.
- Rhodes Scholarship (Texas), Davidson College, 1974-1977.
- Schwabacher Fellowship, Haas School of Business, 1988-1989.
- Batterymarch Fellowship, 1990-1991.
- NSF Graduate Fellowship, University of Chicago, 1977-1979, 1980-1981.
- Keynote Speaker, Western Finance Association, Park City, Utah, June 25, 2002, "Market Microstructure."
- Keynote Speaker, Twelfth Annual Conference on The Theories and Practices of Securities Markets, National Sun Yat-sen University, Kaohsiung, Taiwan, "Insider Trading and Corporate Governance," December 17,2004.
- Assurant Lecture, Assurant/Georgia Tech International Finance Conference, "Market Microstructure and Rational Expectations: A Primer," April 8, 2005.
- Fellow, Econometric Society, 2002-present.
- Clarendon Lectures in Finance, Oxford University, June 2006.

PH.D. DISSERTATION ADVISING
(Initial academic placements are tenure track assistant professors or equivalent, unless otherwise indicated.)

Princeton University:

Steve Kealhofer (Chair, 1983), Columbia University Business School; KMV.
George Mailath (Second Reader, 1984), University of Pennsylvania, Department of Economics.
Loretta Mester (1985), Federal Reserve Board, Philadelphia.
Menachem Sternberg (Second Reader, 1983), Commodities Corporation.
Mark Dudey (Second Reader,1984), Rice University.
Lenny Nakamura (Second Reader,1985), Federal Reserve Board, Philadelphia.
Ian Gale (Chair,1985), University of Wisconsin, Federal Reserve Board, Cleveland.
Julie Nelson (Second Reader,1986), New York University Business School.
Matt Spiegel (Second Reader,1987), Columbia University, UC Berkeley, Yale University.
Jean Luc Vila (Second Reader, 1987), New York University, MIT.
Blaise Allaz (Second Reader, 1987), University of Lausanne.

University of California, Berkeley:

Theodore Sternberg (Chair,1989), Vanderbilt University.
Helena Mullins (Chair,1990), University of Oregon.
Rich Lindsey (Chair,1991), Yale University; Bear Stearns Securities.
Peter Algert (Chair,1991), University of California, Davis; Barclays Global Investor Services.

Jim Angel (Chair,1991), Georgetown University.
Lewis Lu (Chair,1992), University of Hong Kong.
Takeshi Yamada, (Chair,1993), Hong Kong Univ. of Science and Technology; National Univ. of Singapore.

Duke University:

John Graham (Chair, Finance, 1994), University of Utah; Duke University.
Susan Monaco (Chair, Finance, 1995), University of Indiana.
Lu Feng (Chair, Finance, 1995), Salomon Brothers; Stark Investments.
Jainlin Zhai (Chair, Economics, 1996), Federal Home Loan Bank, Iowa.
Jennifer Babcock (Accounting, 1997), Sloan School of Business, MIT.
Mary Beth Fisher (Mathematics, 1998), BBT Bank.
Brian Balyeat, (Chair, Finance, 1998), Texas A&M.
Wei Xiong (Chair, Finance, 2001), Bendheim Finance Center, Princeton University.
Jon Wongswan (Tang) (Economics, 2002), Federal Reserve Board, Chicago.
Ben Zhang (Economics, 2002), Moodies KMV; Fitch.
Lin Peng (Chair, Finance, 2002), City University of NY, Baruch College.
Emma Rasiel (Chair, Finance, 2003), Duke University (Lecturer)
Ge Zhang (Finance, 2003), University of New Orleans.
Julia Litvinova (Economics, 2003), The Brattle Group.
Ilia Tsetlin (Decision Sciences, 2003), INSEAD Singapore.
Tao Lin (Chair, Finance, 2003), University of Hong Kong.
Krishna Narisimhan (Finance, 2004), Wharton Business School (visitor).
Rujing Meng (Chair, Finance,2004), University of Hong Kong.
Mohan Gopalan (Finance, 2004), Barclays Global Investors, London.
Lakshman Easwaran (Finance, 2004), Lehmann Brothers.
Haofei Chen (Economics, expected 2005), Goldman Sachs, Hong Kong.
Sandra Lizarazo (Economics, 2005), ITAM, Mexico City.
Oksana Loginova (Economics, 2005), University of Missouri, Columbia.
Will Xu (Chair, Economics, 2005), Hong Kong University.
Ming Guo (Chair, Economics, 2005), Citadel Investment Group.
Florin Dorobantu (Economics, expected 2006).
Bin Wei (Co-chair, Finance, expected 2007).
Fei Ding (Chair, Finance, expected 2007).
Bruce Carlin (Co-chair, Finance, expected 2007).

North Carolina State University:

Lu Na (Decision Sciences, 2004), Medical College of Wisconsin, BioStatistics Consulting Center staff.

University of North Carolina, Chapel Hill:

Albert Wang (Chair, Finance, 1994), Columbia University; Rice University.

TEACHING (Estimated Enrollments)

University of Maryland:

BUFN 758V: Special Topics in Finance: Venture Capital and Private Equity
Fall 2006: 35 students.

BMGT 808J: Doctoral Seminar: Market Microstructure and Industry Equilbirium
Fall 2006: 10 students (including auditors)

Duke University: (One daytime MBA course meets for 2 hours 15 minutes twice a week for six weeks, plus exam. Ph.D. courses are one a semester system.)

Finance I – First-year Finance Theory course for Ph.D. students
Fall 2002: 30 students.
Fall 2001: 20 students.
Fall 2000: 20 students.
Fall 1999: 20 students.
Fall 1996: 15 students.
Fall 1995: 15 students.
Fall 1994: 15 students.
Fall 1993: 10 students.
Fall 1992: 10 students.

Finance III – Second-year Finance Elective for Ph.D. students (Market Microstructure and Derivatives)
Spring 1998: 15 students.

Venture Capital and Private Equity:
Summer 2004: Week-end MBA, one section, 50 students.
Fall 2003: Global Executive MBA One-Day Mini-course, 55 students.
Fall 2003: Day-time MBA, two sections, with Rebecca Zarutskie, 100 students.
Fall 2003: Cross-Continent Executive MBA, 50 students, taught as Advanced Corporate Finance.
Summer 2004: Week-end MBA, one section, 50 students.
Fall 2002: Global Executive MBA One-Day Mini-course, 50 students.
Fall 2002: Day-time MBA, two sections, with Stephen Wallenstein, 110 students.
Fall 2003: Cross-Continent Executive MBA, 50 students, taught as "Advanced Corporate Finance."
Fall 2001: Global Executive MBA One-Day Mini-course, 50 students.
Fall 2001: Day-time MBA, two sections, with Stephen Wallenstein, 110 students.
Fall 2001: Cross-Continent Executive MBA, 25 students, taught as "Advanced Corporate Finance."
Fall 2000: Day-time MBA, two sections, with Stephen Wallenstein, 110 students.

Advanced Corporate Finance:
Fall 2000: Day-time MBA, two sections, 70 students.
Fall 1995: Daytime MBA, two sections, 90 students.
Fall 1994: Daytime MBA, two sections, 90 students.
Fall 1993: Daytime MBA, two sections, 90 students.

Corporate Finance:
Summer 2005: Week-end MBA, one section, 55 students.
Fall 2005: Daytime MBA, four sections, 210 students.
Fall 1996: Daytime MBA, two sections, 100 students.
Fall 1995: Daytime MBA, two sections, 100 students.
Fall 1994: Daytime MBA, two sections, 100 students.
Fall 1993: Daytime MBA, one section, 60 students.
Fall 1992: Daytime MBA, one section, 60 students.

University of California, Berkeley (MBA and Ph.D. courses on semester system)

Finance I – First-year Finance Theory course for Ph.D. students
Fall 1989: 15 students.
Fall 1988: 15 students.
Fall 1987: 15 students.

Financial Theory: Gateway Investments elective for MBA students:
Spring 1988: Daytime MBA, two sections, 80 students.
Spring 1989: Daytime MBA, three sections, 130 students.

Corporate Finance: Elective for MBA students:
Fall 1990: Daytime MBA, two sections, 80 students.
Fall 1990: Evening MBA, one section, 40 students.
Fall 1989: Evening MBA, one section, 40 stuents.

Futures and Options: Advance Undergraduate Elective
Spring 1989: With David Modest, 20 students.

Princeton University (Courses on semester system):

Finance I - First-year Finance Theory course for Ph.D. students
Fall 1981: With Raymond Hill, 20 students.
Fall 1982: 15 students.
Fall 1984: 15 students.
Fall 1985: With Sanford Grossman, 15 students.
Fall 1986: 15 students.

Financial Markets - Finance Elective for Woodrow Wilson Masters of Public Affairs students.
Fall 1981: 25 students.
Fall 1982: 25 students.
Fall 1984: 25 students.
Fall 1985: 25 students.
Fall 1986: 25 students.

Topics in Micro-economics - Elective for Woodrow Wilson Masters of Public Affairs students.
Fall 1981: 25 students.
Fall 1982: 25 students.
Fall 1985: 25 students.

UNIVERSITY SERVICE

University of Maryland:

Business School Ph.D. Oversight Committee, 2006-2007.
Finance Area Ph.D. Committee, 2006-2007.
Finance Area Recruitment Committee, 2006-2007.
Finance Area Strategy Council, 2006-2007.
Business School Financial Lab Committee, 2006-2007.
Mentor to Assistant Professor Georgios Skoulakis

Duke University:

Member, Dean's Advisory Committee, 2002-2003.
Membory, Duke Global Capital Markets Advisory Committee, 2000-2004.
Finance Area Coordinator, Fall 1995.
Finance Ph.D. Program Administrator, 2000-2003. Helped with Ph.D. admissions other years.
Health Sector Management Curriculum Review Committee, 2003.
TeraData Center Research Review Committee, 2002-2004.

Faculty Technology Committee, 2000.
Organized Duke NYSE Conference on Market Microstructure, 1995.
External Ad Hoc Committee Chairman: 1996.
Internal Ad Hoc Committee Chairman: 1992, 1993, 1995.
Internal Ad Hoc Committee Member: 2003, 2004.
Curriculum Committee, 1995-1996.
Elected Academic Council Representative, 1994-1995.
Rhodes Scholarship Advisory Committee, 2001-2004.
Junior and Senior Faculty Recruiting, 1992-2005, including interviewing at ASSA meetings most years.
Carnegie Case Competition Advisor, 1999-2002.

University of California, Berkeley:

Ph.D. Program Administrator, 1988-1991.
Faculty Recruiting, 1987-1991, including interviewing at ASSA meetings.
Elected Academic Council Representative, 1988-1989.
Active Participant in Berkeley Program in Finance, 1987-1991.
Active Participant in Financial Investment Technology (Executive Education) Program, 1989-1991.

Princeton University:

Rhodes Scholarship Advisory Committee, 1984-87.
Finance Faculty Recruiting, 1982-87, including interviewing at ASSA meetings several years..
Woodrow Wilson Qualifying Exam Committee, 1984-87.
Woodrow Wilson Ph.D. Committee, 1985-87.
Economics Department Ph.D. Admissions, 1984-85.

PROFESSIONAL SERVICE

- NBER Research Associate, 1982-1985.
- Institute for the Study of Securities Markets, Member, Board of Directors, 1988-1992.
- Ecole Nationale des Ponts et Chaussees, Visiting Lecturer, two-week finance course, 1991, 1992, 1993.
- CEPR Summer Institute, Gerzensee, Switzerland, Participant, July 11-23, 1993.
- Frankfurt University, Guest Lecturer, Ph.D. lectures on market microstructure, Aug 13-15, 1999.
- Rhodes Scholarship Selection Committee, Illinois (1979, 1980), Florida (1998, 1999, 2000, 2001, 2002).
- American Finance Association, Board of Directors, Member, 2004-present.
- NASDAQ, Economic Advisory Board, Member, 2005-present.

REFEREEING AND REVIEWING

- I typically referee 6-10 papers per year.
- I occasionally serve on program committees for conferences.
- Referee Reports and External Reviews, 2004: Journal of Financial Economics (3), Journal of Finance (2), Review of Financial Studies, American Economic Review, Econometrica, Journal of Political Economy, Journal of Economic Theory, Economic Journal, NSF, several reviews for tenure or promotion.
- Utah Winter Finance Conference Program Committee, 2004, 2005, 2006.

SELECTED CONSULTING

- Goodman-Manaster and Company, 1981. Futures trading, risk management.
- Pepper, Hamilton, and Scheetz, 1984-1986, expert witness. Railroad deregulation. Reports with Robert Willig.
- Consultants in Industry Economics, Inc. 1983-1986, 1988, expert witness. Anti-trust.
- New York Stock Exchange, 1987, 1990, consultant. Market surveillance, insider trading.
- Commodity Futures Trading Commission, 1986-1989, expert witness. Hunt silver market manipulation. Report.
- Staff Member, Presidential Task Force on Market Mechanisms (Brady Commission), 1987-1988. Stock market crash of 1987, stock index futures, index arbitrage, portfolio insurance.
- Options Clearing Corporation, 1989. Clearing and settlement.
- Berkeley Financial Technologies, 1989-1991. Lectures on futures and options.
- Expert witness for Robert Griffin, 1991. Angelo et al vs. CFTC (Treasury Bond Futures tick size). Report and testimony.
- Law and Economics Consulting Group, 1991, manipulation.
- BARRA, 1991, measuring market liquidity.
- The Long Term Credit Bank of Japan, 1991-1996 interest rates and derivatives pricing.
- National Economic Research Associates, 1996, expert witness, securities fraud, damages.
- Salomon Brothers (Wachtell, Lipton, Rosen and Katz), 1991-1992, expert witness. Cocoa futures trading, damages. Deposition.
- Internal Revenue Service, 1996. Expert witness. Treasury Bond Futures trading.
- Justice Department, 1996. Expert witness. NASD market maker competition and tick size.
- Chase Securities, 2000, Foreign Exchange Order Flow
- Expert Witness, Alleged Price Manipulation of NYMEX Electricity Futures Involving Cash-Settled OTC Derivatives, 2003-2004. Report.
- Expert Witness, Barrick Gold Corporation, 2004-2005, price manipulation, damages.

CURRENT RESEARCH INTERESTS

- Industry Dynamics and Valuation of Firms: An Integration of Corporate Finance and Industrial Organization
- Cash Settlement, Market Manipulation, and the Modigliani-Miller Theorem
- Trading Volume and Overconfidence
- Applications of Numerical Techniques in Finance.
- Settlement Negotiations with Endogenous Discovery
- Financial Contagion.
- Moral Hazard in Continuous Time.
- Trading with Transaction Costs.
- Algorithms for Pricing Interest rates and Derivative Assets.
- Continuous Trading with Many Informed Traders and Risk Aversion.
- Optimal Insider Trading with Smooth Noise Order Flow.
- Applications of complex analysis to finance.

CONFERENCE PRESENTATIONS

- USDA Universities International Trade Consortium Meeting, December 1981. "Market Structure, Information, Futures Markets, and Price Formation."
- Center for the Study of Futures Markets, 1982. "A Theory of Futures Market Manipulations."
- NBER-KGSM Conference on Time and Information in Economics, February 1982. "The Efficient Markets Hypothesis and the Supply of Speculative Services."
- Centre of Policy Studies Conference on Distributional Issues in Health Care, 1983. "The Economics of Medical Insurance" (with Peter Hartley).
- Australian Meetings of the Econometrics Society, August 1983. "Equilibrium in a Speculative Market with Strategic Informed Trading."
- Allied Social Science Associations National Convention, December 1984. Session Chairman. Discussant in two sessions.
- Berkeley Program in Finance Seminar, Trading Costs and Trading Strategies, April, 1984. "Trading in Markets Where Buyers May Have Better Information."
- NBER - NYC Conference on Applications of Game Theory to Finance, December 1985. "Informed Speculation with Imperfect Competition."
- ASSA Convention, December 1985. "On Incentives to Acquire Private Information with Continuous Trading."
- Conference on Market Making, June 1987, London School of Economics, "Dealer Markets and Organized Exchanges."
- ASSA Convention, Discussant (three different sessions).
- ASSA Convention, December 1987. "Dealer Markets and Organized Exchanges."
- Discover Cal, Berkeley, February 12, 1988. Discussion of stock market crash.
- Financial Investment Technology Program, Berkeley, February 1988. Lectures on futures markets.
- Institutional Investor Pension Roundatable, Los Angeles, February 25, 1988. Panel discussion on the stock market crash.
- NBER Conference, Cambridge, MA March 10-11, 1988. Panel discussion on the stock market crash.
- Berkeley Program in Finance Seminar: Stock and Futures Markets: Lessons and Prospects, March 28-30, 1989, Santa Barbara, CA. "What Happened During the Week of the Crash" (with Terry Marsh).
- Wells Fargo Investment Advisors Seminar, San Francisco, April 11, 1988. Discussion of the stock market crash.
- CRSP Seminar, Drake Hotel, Chicago. May 1988. Panel discussion. Causes and Consequences of the Stock Market Crash.
- Institute for Fiduciary Education, Carmel Valley. Ranch, CA. May 1988. Panel discussion on the 1987 stock market crash.
- Western Economic Assoc., Meetings, July 1, 1988.
- Berkeley Program in Finance Seminar. On Trading and Fund Management: The Role of Technology. September 23-27, 1988, Silverado, CA. Co-organizer (with Terry Marsh).
- Cal Business Alumni, Meridian Hotel, San Francisco, October 20, 1988, discussion on "The Stock Market Crash: A Year and a Day Later."
- Advanced Financial Technology Seminar of Futures Markets, December 6-10, 1989, Tokyo, lectures with David Modest.
- Chicago Board of Trade Conference on Futures Market Regulation, November 19, 1988, Mayflower Hotel, Washington, D.C., "Trading Halts and Price Limits."
- ASSA Convention, December 1988. Discussant.
- ASSA Convention, December 1988, "Estimating Intraday Price Volatility during the Crash, presented part of "Improving the Performance of the Stock Market."
- Institute for Quantitative Research in Finance (Q-Group), Spring Seminar, Orlando, Florida, April 18, 1989,

"An Intuitive Introduction to Agency Theory with Applications to Money Management."

- New York Stock Exchange Academic Seminar, May 5, 1989. Roundtable discussion.
- STEP-CEPR Seminar, Bocconi University, Milan Italy, May 26, 1989. "Smart Money, Noise Trading, and Stock Price Behavior."
- University of Bonn Summer Workshop, Bonn W. Germany, June 28-July 8, 1989, invited guest.
- French Finance Association Conference (AFFI), June 28, 1989, "Smart Money, Noise Trading and Stock Price Behavior."
- New York Stock Exchange/London School of Economics Conference on Market Microstructure, London, England, November 15, 1989. Discussant.
- Washington University, Regional Finance Conference, November 1990, lecture on trading with asymmetric information.
- University of Iowa, Market Microstructure Conference, November 1990. "Dealer Markets and Organized Exchanges."
- Chicago Board of Trade Conference, Vanderbilt University, December 3, 1990. Discussant.
- ASSA Convention, Washington, D.C., December 30, 1990. Session chair.
- Berkeley Program in Finance, April 5-7, 1992. Discussant.
- Atlanta, Federal Reserve Bank, February 20, 1992. Discussant.
- New York Stock Exchange Conference, Los Angeles, California, March, 1992. Discussant.
- Commodity Futures Trading Commission, March 30-31, 1992.
- Konstanz, Germany, April 3-4, 1992. "Intertemporal Insider Trading..."
- Jerusalem, March 11, 1992. "Intertemporal Insider Trading..."
- Western Finance Association, June 22-24, 1992. Discussant.
- Stockholm, Sweden, August 21-22, 1992. "Market Failures and the Regulation of Financial Markets."
- Allied Social Sciences Association, January 5-7, 1993. Discussant.
- Berkeley Program in Finance, Lake Tahoe, California, March 14-16, 1993. Conference Summarizer.
- Allied Social Sciences Association, Boston, January 3-5, 1994. Discussant.
- Western Finance Association, Santa Fe, June 23-26, 1994. Discussant.
- National Bureau of Economic Research Conference, Key Largo, Florida, July 11-12, 1994. Discussant.
- Federal Reserve Bank of Atlanta Conference, Miami, March 3-4, 1995. Discussant.
- Q-Group Conference, November 22-29, 1995. "Active Mismanagement."
- Allied Social Sciences Association, San Francisco, 1996. Session Chair.
- Berkeley Program in Finance, Santa Barbara, September 29-October 1, 1996. Essay in Honor of Fischer Black.
- Western Finance Association Meetings, Los Angeles, June 19, 1999, discussant.
- Duke University Global Capital Markets Center, Conference on Bond Market Microstructure, Washington DC, October 19, 1999, presenter.
- SIR CA Mini-Conference on Insider Trading, Sydney, Australia, November 5, 1999, keynote speaker, "Insider Trading."
- Duke Unveristy Global Capital Markets Center, Conference on Hedge Funds, Durham, NC, November 19, 1999, moderator.
- NBER Asset Pricing Conference, Boston, May 5, 2000, discussant.
- Western Finance Association, Sun Valley, Idaho, June 21-24, 2000, discussant.
- Review of Economic Studies Conference, Frankfurt, Germany, June 30, 2000, "Contagion as a Wealth Effect."
- Federal Reserve Bank of Atlanta Conference, Atlanta, September 15, 2000, "Contagion as a Wealth Effect."
- Federal Reserve Bank of Atlanta Conference on E-Finance, October 14, 2000,discussant.
- Berkeley Program in Finance, Squaw Valley, CA, March 17, 2001, program discussant.
- ASSA Meetings, New Orleans, LA, January 6, 2001, "Contagion as a Wealth Effect."

- Q-Group, Tampa, FL, April 4, 2001, "Contagion as a Wealth Effect."
- Western Finance Assn., Tucson, AZ, June 22-23, 2001, session chair (Market Microstructure),discussant.
- New York Stock Exchange Conference, Institutional Trading, Palm Beach, FL, Dec. 6, 2001, session chair.
- Utah Winter Finance Conference, Salt Lake City, Utah,February 26-28, discussant.
- RFS Conference, Northwestern University, April 26-28, 2002, discussant.
- Federal Reserve Bank of Atlanta Conference on Venture Capital, Sea Islang, GA, May 2-4, 2002, discussant.
- Conference in Honor of David Whitcomb, Rutgers University, October 11, 2002, discussant.
- SEC Roundtable Discussion on Market Transparency, November 12, 2002, participant.
- NYSE Roundtable Discussion on Market Quality Statistics, December 6, 2002, participant.
- ASSA Convention, Contagion, January 4, 2003, session chair.
- Utah Winter Finance Conference, February 6, 2003, discussant.
- FRB Atlanta Conference on Business Method Patents, Sea Island, GA, April 3, 2003, discussant.
- NBER Market Microstructure Meeting, Chicago, April 12, 2003, discussant.
- ASSA, San Diego, January 5, 2004, discussant.
- Utah Winter Finance Conference, February 5, 2004, discussant.
- Duke/NYSE Conference on International Cross-Listings, Sarasota, FL, March 11-13, Duke GCMC representative.
- New York Stock Exchange Conference, Market Microstructure, Palm Beach, FL, December 12, 2003, panel on market microstructure.
- FRB Atlanta Conference on Market Transparency, Sea Island, GA, April 15, 2004, discussant.
- 2004 HKUST Finance Symposium, Hong Kong, "A Two-Factor Model of Value and Growth with Adjustment Costs," December 13, 2004.
- Keynote Speaker, Twelfth Annual Conference on The Theories and Practices of Securities Markets, National Sun Yat-sen University, Kaohsiung, Taiwan, "Insider Trading and Corporate Governance," December 17,2004.
- ASSA, Philadelphis, January 8, 2005, discussant.
- Utah Winter Finance Conference, February 10, 2005, discussant.
- Assurant/Georgia Tech International Finance Conference, Assurant Lecture, "Market Microstructure and Rational Expectations: A Primer," April 8, 2005.
- Oxford Finance Summer Symposium, "A Two-Factor Model of Value and Growth with Adjustment Costs," June 15, 2005.
- Conference on Information and Behavioral Biases in Financial Markets, Fundación Ramón Areces, Madrid, "An Intemporal Asset Pricing Model with Strategic Informed Trading and Risk-Averse Market Makers," July 8, 2005.
- Oxford Summer Finance Symposium, "A Two-Factor Model of Value and Growth," June 16, 2005.
- Conference on Information and Behavioral Biases in Financial Markets, Madrid, Spain, "An Intemporal Asset Pricing Model with Strategic Informed Trading and Risk-Averse Market Makers," July 7, 2005.
- Alpha Strategies Conference on Quantitative Money Management, commentator, April 10-12,2006.
- Clarendon Lectures in Finance "Stock Price Dynamics and Industry Equilibrium," June 12-14, 2006.
- LSE Conference on New Directions in Asset Pricing and Risk Management, "Dynamic Strategic Informed Trading with Risk-Averse Market Makers," June 16, 2006.
- Western Finance Association, session chair, discussant, June 21-22, 2005.
- European Summer Symposium in Financial Markets, Gerzensee, Switzerland, focus session chair, July 24-28, 2006.

INVITED UNIVERSITY RESEARCH SEMINARS

- School of Organization and Management, Yale University, March 1982.
- New York University, April 1983.
- Australian National University, October 1983.
- University of New England, Armidale, NSW, Australia, October 1983.
- Australian Graduate School of Management, University of New South Wales, October 1983.
- Centre of Policy Studies, Monash University, Melbourne, August 1983 and November 1983.
- School of Organization and Management, Yale University, March 1984.
- Columbia University Business School, April 1984.
- University of Rochester, April 1984.
- NBER Trade Group, April 1984.
- NBER Financial Markets Group, November 1984.
- Harvard Business School, May 1985.
- University of Chicago Business School, May 1985.
- Kellogg Graduate School of Management, Northwestern University, May 1985.
- Sloan School, MIT, October 1985.
- Graduate School of Business, Stanford University, March 1986.
- Graduate School of Management, Rutgers University, April 1986.
- Columbia University Business School, September 1986.
- GSIA, Carnegie-Mellon University, September, 1986.
- University of Chicago Business School, October 1986.
- Kellogg Graduate School of Management, Northwestern University, October 1986.
- School of Business, Washington University, St. Louis, February, 1987.
- Graduate School of Management, Rutgers University, February 1987.
- Graduate School of Business, Stanford University, January 1987.
- School of Business, University of California, Berkeley, January 1987.
- School of Management, Rice University, February 1987.
- Business School, University of Michigan, February 1987.
- Business School and Economics, University of Wisconsin, February 1987.
- Economics Department, University of Pittsburgh, February 1987.
- Wharton Business School, University of Pennsylvania, February 1987.
- Economics Department, Brown University, February 1987.
- School of Organization and Management, Yale University, April 1987.
- Economics Department, Virginia Polytechnic Institute, June 1987.
- UCLA Business School, May 20, 1988 "Smart Money, Noise Trading, and Stock Price Behavior."
- University of California, Santa Cruz, Economics Department, October 25, 1988, "Dealer Markets and Organized Exchanges."
- Anderson School of Management, University of New Mexico, November 18, 1988 "Dealer Markets and Organized Exchanges."
- Bocconi University, Milan Italy, "Asymmetric Information and Market Microstructure," May 25, 1989.
- Commodity Futures Trading Commission, November 1989.
- University of British Columbia, Finance Seminar, December 1989, "Noise Trading and Takeovers."
- Vanderbilt University, Finance Seminar November 1989, "Noise Trading and Takeovers."
- University of Utah, Finance Seminar, December 1989. "Intertemporal Insider Trading..."
- University of Indiana, Finance Seminar, September 1990. "Intertemporal Insider Trading..."
- Ecole Nationale des Ponts et Chaussees, Paris Finance Seminar, January 1991. "Intertemporal Insider Trading..."

- University of North Carolina, February 18, 1992. "Intertemporal Insider Trading With Smooth Order Flow."
- Northwestern University, Kellogg Graduate School of Management, June 3-4, 1992. "Intertemporal Insider Trading With Smooth Order Flow."
- New York University, September 22, 1993. "Speculation Duopoly..."
- UCLA, November 5, 1993. "Speculation Duopoly..."
- Vanderbilt University, April 14, 1995. "Speculation Duopoly..."
- University of Michigan, December 6, 1996. " Speculation Duopoly with Agreement to Disagree."
- Rice University, October 1, 1999, "Contagions as a Wealth Effect of Financial Intermediaries."
- Sydney University, Sydney, Australia, November 2, 1999, "Contagion as a Wealth Effect of Financial Intermediaries."
- Carnegie Mellon University, GSIA, February 23, 2001, "Contagion as a Wealth Effect."
- Stanford University, Graduate School of Business, March 14, 2001, "Contagion as a Wealth Effect."
- University of California, Berkeley, Haas School of Business, March 15, 2001, "Contagion as a Wealth Effect."
- University of Indiana, April 27, 2001, "Contagion as a Wealth Effect."
- London School of Economics, May 9, 2001, "Contagion as a Wealth Effect."
- University of Texas, Austin, October 26, 2001, "Continuous Speculation with Overconfident Traders."
- Norwegian School Of Management, Oslo, June 5, 2002, "Continuous Trading with Heterogeneous ...."
- Humboldt University, Berlin, June 7, 2002, "Continuous Trading with Heterogeneous Beliefs ...."
- Oxford Summer Finance Institute, June 11, 2002, "Continuous Trading with Heterogeneous Beliefs and No Noise Trading."
- Oxford Summer Finance Institute, June 12, 2003, "Corporate Finance and Industrial Organization."
- New York Univeristy, "Strategic Acquisitions ... ", November 5, 2003.
- University of Virginia, "Prospect Theory ... ", February 14, 2003.
- INSEAD, Paris, "Strategic Acquisition ... ", April 2, 2004.
- HEC, Paris, "Strategic Acquisitions ... ", April 1, 2004.
- University of Amsterdam, "Strategic Acquisitions ... ", March 30, 2004.
- University of Tilburg, "Strategic Acquisitions ... ", March 29, 2004.
- University of Pompeu Fabri, Barcelona, "Strategic Acquisitions ...", March 24, 2004.
- Princeton University, "Strategic Acquisitions ...," March 3, 2004.
- University of Maryland, "Strategic Acquisitions ..." April 23, 2004.
- Federal Reserve Board, Washington, DC, "Strategic Acquisitions ..." August, 17, 2004.
- Baruch College, CUNY, "Strategic Acquisitions and Investments in a Duopoly Patent Race Under Uncertainty" November 17, 2004.
- INSEAD Singapore, "Value and Growth ...," December 7, 2004.
- National University of Singapore, "A Two-Factor Model of Value and Growth with Adjustment Costs," December 9, 2004.
- University of Maryland, "A Two-Factor Model of Value and Growth with Adjustment Costs," May 9, 2005.
- Imperial College, Longon, "A Two-Factor Model of Value and Growth ...," May11, 2006.
- Warwick University, "Strategic Trading with Risk Averse Market Makers," May 31, 2006.

Scope and Methodology

We conducted this performance audit in accordance with Generally Accepted Government Auditing Standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Scope. We performed our audit from April 2008 to August 2008. Our audit scope included a review of the CSE and Broker-Dealer Risk Assessment program, as requested. Although our audit scope focused on TM's oversight of the CSE firms, we also considered the role of other Commission divisions and offices (for a Commission wide perspective) in the oversight of the CSE firms.

Our scope emphasized the CSE firms (especially Bear Stearns) that do not have a principal regulator because the Commission has much greater oversight responsibility for these firms. Our period of review was from October 2002 until August 2008. However, it varied depending on the nature of the issue. The scope of our review considered when:

- Bear Stearns collapsed;
- The subprime mortgage crisis started to become apparent (based on our audit work, we used December 2006);
- Two of Bear Stearns' managed hedge funds collapsed; and
- The CSE program began and the Commission issued the Order for the particular firm.

Lastly, our scope either did not include or was limited in the following areas:

- We completed our audit fieldwork prior to September 15, 2008 when Lehman Brothers announced it would file for bankruptcy protection and Bank of America announced that it agreed to acquire Merrill Lynch & Co. As a result, our fieldwork did not emphasize these firms, unlike Bear Stearns;
- We did not evaluate the effect(s), if any, that mark to market (*i.e.,* "fair value") accounting had on the valuation of mortgage securities and the ensuing write-downs which subsequently caused the firms to raise capital;
- We did not evaluate the role of rating agencies in the securitization process of mortgage loans;

- We did not visit the CSE firms and perform an independent assessment of the firm's risk management systems (*e.g.,* internal controls, models, etc.), or their financial condition (*e.g.,* compliance with capital and liquidity requirements). As a result, we may not have identified certain findings and recommendations (*i.e.,* improvements);
- We did not determine (*i.e.,* recalculate and determine the accuracy) of the capital and liquidity data provided by the CSE firms to TM. OCIE and TM performed some inspection testing on the financial data during the application inspection. Also, the Financial Industry Regulatory Authority (FINRA) routinely performs inspection testing on the registered broker-dealers capital calculation;
- We did not determine the cause of Bear Stearns' collapse. For instance, some individuals have speculated that short sellers may have caused Bear Stearns' collapse by intentionally spreading false rumors. This issue is beyond the scope of this audit;
- The CSE program consists of four interrelated activities: an application process, inspections, the review of required filings, and periodic meetings with CSE staff.[193] We performed limited testing on some of these processes, as discussed below:[194]
    - TM relies mainly on meetings with the CSE staff to administer the CSE program. As a result, we viewed compliance testing in this area to have limited value; instead we (our expert, primarily) focused on the substance of these meetings. Thus, we excluded the meeting process from our compliance testing; and
    - In March 2007, in response to a GAO audit report (as discussed in the Prior Audit Coverage of this Appendix); Chairman Cox decided to transfer inspection responsibility from OCIE to TM (responsibility was transferred to TM in March 2007 for four of the five firms, and for the last firm (Morgan Stanley) following the completion of the ongoing OCIE exam of that firm in September 2007). OCIE retained within the Commission, the responsibility for conducting inspections on the CSE's broker-dealers. TM had not completed any of these inspections as of mid-September 2008. As a result, we only performed limited compliance testing on TM's inspection process. Instead, we emphasized the design of the TM inspection program;
- The Congressional request also asked the OIG to investigate the closing of a Commission enforcement investigation involving Bear Stearns. This

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

[194] The purpose of our testing was to determine whether the CSE program is compliant with its policies and procedures and the CSE rule.

issue is beyond the scope of this audit, but is the subject of a separate investigative report; and

- The role of federal regulators (*e.g.,* the U.S. Department of Treasury) in the sale of Bear Stearns to JP Morgan is beyond the scope of this audit.

Methodology. Our methodology included reviewing required filings, inspection reports, and documentation surrounding periodic meetings between TM and CSE staff. We also reviewed other types of supporting documentation such as TM's policies and procedures, prior GAO audit reports, newspaper articles, etc. We also conducted interviews with staff from the Commission, CSE firms, GAO, and the FRBNY.

Lastly, we hired a contractor (*i.e.,* an expert) to provide us with technical expertise.[195] The expert reviewed the adequacy of TM's review of models, scenario analysis, etc; as well as, the associated internal risk management controls. We have incorporated the expert's opinions, findings, and recommendations into this audit report. The expert focused his review on the Commission's oversight of Bear Stearns.

Internal/Management Controls. We did not review management controls because they did not pertain to the audit's objectives. However, we identified several improvements in the CSE program's internal controls (*e.g.,* tracking of issues).

Use of Computer-Processed Data. We relied on data from the Commission's Broker-Dealer Risk Assessment (BDRA) computer system. Firms use the BDRA system to electronically transmit filings (and BDRA stores the filing) to TM. The BDRA system does not process any of the data contained in the filings. As a result, we considered the relevant risks to be:

- TM's failure to receive a filing sent by a firm; and
- Whether information in the BDRA system could be compromised (information security risks).

We did not identify any instances where TM failed to receive a filing that a CSE firm transmitted through the system. However, TM told us about situations where firm filings made under the Broker-Dealer Risk Assessment program did not completely transmit to TM through the BDRA system. Given how we used the BDRA data in this audit, if a similar situation occurred with the CSE filings, we would have been aware because the firms transmit the filings at known intervals (*e.g.,* month end).

We considered the risk surrounding information security. The Commission's Office of Information Technology recently certified and accredited the BDRA

[195] See Appendix III for our expert's (Albert "Pete" Kyle) Curriculum Vitae.

system, as required by the Federal Information Security Management Act of 2002. Therefore, we believe that we can rely upon the information in the BDRA system as it pertains to information security.

We identified a few issues with the BDRA system, but they do not affect the reliability of the data. We discuss the issues in our related audit report (No. 446-B).

Judgmental Sample. We judgmentally selected twenty issues that TM or OCIE staff identified for our testing on TM's tracking of material issues (see Report Finding No. 5). Our sample included issues from all the CSE firms including those with principal regulators, although our audit work emphasized Bear Stearns. We generally selected specific issues such as an internal control weakness, as opposed to more generic issues (*e.g.,* exposure to subprime). We selected samples from:

- The TM action memo recommending that the Commission issue the Order;
- OCIE inspection reports; and[196]
- The monitoring staff's monthly memoranda (which discuss significant issues) to senior TM management.

Although we believe that our sampling methodology is reasonable and representative, our results should not be projected onto the universe of issues.

Use of Technical Assistance. We received technical assistance from an expert, as discussed in the Methodology section of this Appendix. His expertise is described in his Curriculum Vitae in Appendix III.

Prior Audit Coverage. GAO Report Financial Market Regulation: Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration, GAO Report 07-154, dated March 15, 2007 on strengthening performance measurement and collaboration for the agencies (*i.e.,* the Federal Reserve, Commission, and the Office of Thrift Supervision (OTS)) involved in consolidated supervision. They made several recommendations involving the Commission:

GAO Recommendation:	To better assess the Commission's achievements, the Chairman of the Commission should direct his staff to develop program objectives and performance measures that are specific to the CSE program.

[196] We did not use TM's inspection reports because they had not completed any inspections (as of when we performed our testing) since the Chairman transferred (from OCIE to TM) the inspection authority for the consolidated entity. Lastly, TM has implemented an automated method to track the inspection issues (*i.e.,* findings).

The Commission has developed program objectives and performance measures. These documents are available on the Commission's website.[197]

GAO Recommendation: To ensure they are promoting consistency with primary bank and functional supervisors and are avoiding duplicating the efforts of these supervisors, the Chairman of the Federal Reserve, the Director of the OTS, and the Chairman of the Commission should also direct their staffs to identify additional ways to more effectively collaborate with primary bank and functional supervisors. Some of the ways they might consider accomplishing this include:

- Ensuring common understanding of how the respective roles and responsibilities of primary bank and functional supervisors and of consolidated supervisors are being applied and defined in decisions regarding the examination and supervision of institutions; and
- Developing appropriate mechanisms to monitor, evaluate, and report jointly on results.

In response to Bear Stearns' collapse, the Commission and the Federal Reserve have agreed on a MOU involving coordination and information sharing.

GAO Recommendation: To take advantage of the opportunities to promote better accountability and limit the potential for duplication and regulatory gaps, the Chairman of the Federal Reserve, the Director of OTS, and the Chairman of the Commission should foster more systematic collaboration among their agencies to promote supervisory consistency, particularly for firms that provide similar services. In particular, the Chairman of the Commission and the Director of the OTS should jointly clarify accountability for the supervision of the CSEs that are also thrift holding companies and work to reduce the potential for duplication.

The Chairman and the Director of OTS are still discussing the jurisdictional issues raised by the recommendation. This issue was recently discussed at a Congressional hearing.[198]

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

[198] Source: *Risk Management and its Implications for Systemic Risk* Before the U.S. Senate Subcommittee on Securities, Insurance, and Investment on Banking, Housing, and Urban Affairs, 110th Cong. (June 19,

GAO Recommendation: The Chairman of the Commission should direct the staff to develop and publicly release explicit written guidance for supervision of CSEs. This guidance should clarify the responsibilities and activities of the OCIE and TM's responsibilities for administering the CSE program.

The Chairman transferred the inspection authority of the consolidated entity from OCIE to TM. [199] However, as discussed in the audit report, TM and OCIE can still improve collaboration. Lastly, the Commission developed and publicly released written guidance describing the CSE program (*e.g.,* TM's roles and responsibilities).

2008) (statement of Erik Sirri, Director of TM, Commission).

[199] 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 07-154, 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.

List of Recommendations

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) 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.

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.

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.

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.

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.

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.

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.

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.

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.

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

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[200] for this deviation from the current rule's requirement.

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.

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.

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[200] 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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

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.

Chairman Cox's Comments

September 25, 2008

MEMORANDUM

TO: H. David Kotz
Inspector General

FROM: Christopher Cox
Chairman

SUBJECT: Draft Report on *SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entities Program*

Thank you for the opportunity to review the Draft Report on *SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entities Program*. I welcome your report and recommendations on the CSE program.

There is much value that the agency can take from an independent and arms-length review of its programs, and your report provides an invaluable and fresh perspective for the agency to carefully review and consider. The staff of the Division of Trading and Markets and the Division of Corporation Finance, who as you know have been working around the clock for months in the current market turmoil, have provided detailed comments on specific aspects of the analysis in the report. As head of the agency, I would like to address your major findings and recommendations.

Your report makes 26 specific recommendations to improve the CSE program, all of which are well-considered and worthy of support. Some of these recommendations had already been undertaken and many will have potential applicability beyond the CSE program.

Your report also underscores the fundamental flaw with the CSE program that I have reported to the Congress on several occasions in recent months: voluntary regulation does not work. When Congress passed the Gramm-Leach-Bliley Act, it failed to give the SEC or any agency the authority to regulate certain large investment bank holding companies. Because of the lack of explicit statutory authority for the Commission to regulate the large investment bank holding companies, the Commission in 2004 created a voluntary program, the Consolidated Supervised Entities program, in an effort to fill this regulatory gap.

The inherent weakness of the CSE program from the beginning was that investment banks could opt in or out of supervision voluntarily. The program had no explicit statutory authority to require these investment bank holding companies to report their capital, maintain liquidity, or submit to leverage requirements. The fact that investment bank holding companies could withdraw from this voluntary supervision at their discretion diminished the perceived mandate of the CSE program, and weakened its effectiveness in a number of ways.

Lacking a statutory mandate to regulate these investment bank holding companies, the CSE program was patterned after the regulation of commercial bank holding companies. It used the capital and liquidity measurement approaches from the commercial banking world — with unfortunate results.

Thus, as your report confirms, at the time of its near-failure Bear Stearns had a capital cushion well above what was required to meet supervisory standards calculated under the internationally-accepted Basel framework and the Federal Reserve's "well capitalized" standard for bank holding companies.

Your report also highlights the consequences of a critical issue that existed throughout the financial services sector. Prior to the spring of 2008, the bank risk models in use throughout the U.S., including those relied upon by the CSE firms, did not include scenarios premised on a total mortgage meltdown on a scale so devastating that it would cause the failure of Fannie Mae and Freddie Mac. Throughout this year, national and international banking regulators have worked to strengthen and improve the capital and liquidity standards that are used throughout the banking system. The SEC has been a leader in this process through institutions like the Basel Committee on Banking Supervision, the Senior Supervisors Group, the Financial Stability Forum, and the International Organization of Securities Commissions. Those efforts are ongoing and vital.

I am pleased that the SEC has already undertaken several of the actions listed in your recommendations, and look forward to working with you to implement others. Thank you for your role in helping to ensure that the SEC is faithfully executing its mission to protect investors, facilitate capital formation, and maintain fair and orderly markets.

Management's Comments

DIVISION OF TRADING AND MARKETS MANAGEMENT COMMENTARY

The Division of Trading and Markets ("Division") appreciates the opportunity to comment on the Office of Inspector General ("OIG") Report "SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program" ("OIG Report"). This comment process is of critical importance to the Division because previous modes of feedback to OIG have proven ineffective in correcting what the Division believes are factual errors and unsupported conclusions. This OIG Report therefore becomes the mechanism by which the Division can attempt to set the record straight.

We believe the OIG Report is fundamentally flawed in its process, premises, analysis, and key findings. The Division understands the importance of an active and independent OIG, and supports full and fair investigations of matters by the OIG. However, with respect to this OIG Report, the Division's calls to correct mistakes, misunderstandings, and misrepresentations have had limited effect on the final document. It is our view that the resulting OIG Report starts from incorrect assumptions and reaches inaccurate, unrealistic, and impracticable conclusions.

Few would argue that the demise of Bear Stearns was a significant event for the U.S. financial markets. This demise deserves a careful analysis to assess its causes and to prescribe future actions. This OIG Report does not provide such an analysis; rather, it attempts to explain Bear's collapse in nutshell fashion. The Division believes that the OIG Report is flawed in several respects.

As a threshold matter, the Division believes it was not provided with a fair and meaningful process to address the issues raised in the OIG Report. In particular:

- OIG failed to interview the Division's senior management. Senior managers were in a position to address many of the concerns raised in the OIG Report and provide information that OIG could not obtain from staff workpapers.
- OIG did not interview Bear Stearns managers regarding critical aspects of the OIG Report. Firm management constitutes a primary source of information that could serve to meaningfully support or refute a number of the OIG Report's statements about the Division's CSE supervision of the firm. Such a cross-check and verification should be incorporated in such a OIG Report.
- OIG's expert spent only three hours with Division staff before preparing his portions of the OIG Report. The issues associated with supervision of a complex firm such as Bear Stearns cannot be evaluated without developing a context for the information. Without the benefit of conversations with Division staff, such context is missing and the OIG's conclusions are destined to lack proper foundations.

- Large portions of OIG's Report – and in particular the portion prepared by the OIG expert – rely extensively, if not exclusively, on information contained in informal Divison staff memoranda that recorded notes, not final conclusions, and do not represent all the facts or work performed by Division staff. These notes were not a final work product and were not even circulated to the Division's senior management.
- The OIG Report cites staff notes out of context, giving the impression that the Division, at some point, shared such views but failed to act prudently. The OIG Report should have distinguished between its own findings and opinions, and those of Division staff.
- The OIG Report's assessments contain numerous factual and analytical errors, and weakly supported conclusions, perhaps reflective of the process used and the tight time, informational, and resource constraints under which it was prepared. Each error is, in and of itself, understandable. Untangling capital from liquidity, market risk from funding risk, risk weighted assets from less liquid assets, is difficult even for many practitioners and regulators involved in day-to-day consideration of the issues. Unfortunately, the cumulative effect of the errors led to less informed and more assertive conclusions than would have been the case had the process had the luxury of more time and greater resources.

This process has produced findings that are materially in error, including the following:

- As the Division has expressly informed OIG in informal comments, CSE holding companies are not subject to a capital requirement – they are required to report a capital ratio calculated under the Basel II Standard.
- As the Division has expressly informed OIG in informal comments, paragraph 777 of the Basel II Standard, quoted in the OIG Report, describes requirements related to credit risk. Yet the text of the OIG Report cites this paragraph to make an argument that the Standard was applied imprudently with respect to market risk concentrations.
- As the Division has expressly informed OIG in informal comments, the OIG Report improperly criticizes CSE oversight, noting "that pricing at Bear Stearns was based more on looking at trading levels in the market than on looking at models." Marking positions based upon recent trading activity is a higher valuation standard in the accounting literature and should be used above marks produced by models.

This OIG Report considers an isolated set of data about Bear Stearns, yet it makes sweeping statements and comes to broad findings about the CSE program in general. In doing so, it does not consider the events in our markets following the collapse of Bear Stearns. Since that time, we have seen the failure of IndyMac bank, the bankruptcy of Lehman Brothers, the purchase of Merrill Lynch by Bank of America, the Federal government's explicit actions to guarantee Fannie Mae, Freddie Mac, the injection of Federal money into the insurance company AIG, the attempt by the U.S. Treasury to create a $700B purchase facility for distressed

assets from the financial sector, and the conversion of Morgan Stanley and Goldman Sachs to bank holding companies.

[REDACTED PARAGRAPH]

This chain of events raises very significant questions about the supervision of all types of financial institutions, not just investment banks. For our part, the Division has engaged with domestic and international regulators in a concerted effort to answer what are very fundamental questions about how large and complex financial institutions should be supervised, capitalized, and kept liquid. With respect to Bear Stearns, the staff applied the relevant international standards for holding company capital adequacy in a conservative manner, and added a holding company liquidity requirement: and yet they could not withstand a "run-on-the-bank." Where the globally accepted standards required an eight foot high levee, Division staff raised a ten foot levee, which was of course little use in the face of a fifteen foot storm surge. The relevant question now is not whether the levees were high enough, because they clearly were breached. Rather, the central issue is whether levee systems, no matter how high, afford sufficient protection from the financial environment, or are additional measures needed to complement the levees?

In particular, there is widespread recognition that the international standards for holding company capital adequacy, relied upon by both commercial and investment banks, require revision. Also, new standards for liquidity need to be calibrated and applied to large institutions. There are many venues in which relevant discussions are progressing and where guidance will soon be issued. The Commission staff has been active in all of these, including the Senior Supervisors Group, the Basel Committee, the Financial Stability Forum, and the International Organization of Securities Commissions. Rather than wait for this collaborative work to be complete, however, the Division responded quickly to the collapse of Bear Stearns by requiring the remaining CSE firms to increase their liquidity pools, which already were significantly in excess of any applicable international standard.

Given continuing market events, we feel it is not possible to responsibly make the type of statements that were made in this OIG Report about the demise of Bear Stearns, and the role of the CSE program. We expect that after these data are analyzed with proper care and reflection, responsible lessons can be drawn. But the events subsequent to the failure of Bear Stearns strongly suggest that the statements made in this OIG report are premature at best. For our part, we believe that the key conclusions of the OIG Report are inaccurate and without empirical foundation.

OIG Report 446-A: SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program

Please indicated your concurrence or non-concurrence with each recommendation that applies to your Division or Office.

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) 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.

Management Response (Concur or Non-concur):

The Division of Trading and Markets concurs with this recommendation, even though we believe it is based on a fundamentally flawed understanding of the Bear Stearns crisis. Nonetheless, we have already undertaken efforts that respond to the recommendation,

Actions: Since Bear Stearns' failure, we have:

- Worked with the Basel Committee on Banking Supervision to amend capital adequacy standards for internationally active sophisticated institutions to deal explicitly with liquidity risk.
- Supported the work of the Basel Accord Implementation Group on "incremental default risk capital," which aims to supplement Value at Risk-based capital to ensure that "tail risk exposures" in the trading book are adequately capitalized.
- Developed and entered into a formal Memorandum of Understanding with the Federal Reserve to improve sharing of information and provide a mechanism for cooperation in supervision of CSEs.
- Jointly with the Federal Reserve, discussed with the senior management at each CSE firm its long-term funding plans, including plans for raising new capital by accessing the equity and long-term debt markets.
- Required public disclosure of capital adequacy measures computed under the Basel Standard.

Flawed Assumptions and Findings: TM believes that the OIG Report's findings are fundamentally flawed in the following ways:

- The OIG Report's exclusive focus on capital is misplaced. As explained in Commission public statements and testimony, Bear Stearns's failure was due to a run on liquidity, not capital. The primary reason that Bear failed was concerns by

secured lenders that it would suffer greater losses in the future. These concerns caused secured lenders to stop providing financing, even on a fully-secured basis, despite the firm's compliance with applicable net capital requirements.

- The OIG Report misconstrues the nature of the Basel Standard. The CSE rules incorporate by reference the Basel Standard, the capital adequacy regime applicable to internationally active financial institutions, including commercial banks, on a global basis. The Basel II Standard is a capital ratio, not a capital requirement. However, the CSE program requires reporting of the capital ratio and incorporates the 10% Basel capital ratio threshold as constituting a "well capitalized" institution consistent with the threshold used by banking supervisors. Falling below 10% triggers certain obligations on the firm, but because there is no capital requirement is not necessarily a "violation."

- At the time of its failure, the Bear Stearns holding company actually exceeded the Basel II "well-capitalized" standard, and Bear's primary broker-dealer maintained tentative net capital above $5 billion.

- The OIG Report questions whether Bear's "capital requirement amounts were adequate," but the real issue is whether the international Basel standard that all international banking institutions rely on is sufficient.

- The OIG Report's assumptions regarding leverage based on the Pickard article are inaccurate.

  - The statement of Mr. Pickard, used in the OIG Report, is inapplicable to the relevant capital and liquidity requirements at Bear's holding company. The quotation appears to confuse holding company Basel II capital standards and broker-dealer net capital requirements.

  - Mr. Pickard's statement does not accurately reflect the letter and operation of the SEC's current net capital rule and has numerous analytical errors as a result. For instance, the CSE broker-dealers were not subject to an explicit 12x leverage standard before the CSE amendments, as implied by Mr. Pickard. The article says that broker-dealers were formerly subject to a leverage ratio limit of 12x net capital in computing minimum net capital, and this limit was removed by the net capital requirements applicable to broker-dealer subsidiaries of CSEs. (This limit is in the "aggregate indebtedness" method for calculating net capital.) However, CSE broker-dealers were not subject to this leverage limit even before the CSE net capital standard was created. These broker-dealers used an alternative capital standard that has been in the rule since 1975. Under this requirement, broker-dealers that carry customer accounts maintain minimum net capital equal to no less than two percent of "aggregate debit items", not the aggregate indebtedness standard referred to by Mr. Pickard. This alternative method to compute the minimum net capital requirement is applied by all the CSE broker-dealers and most

other large broker-dealers. Under the "aggregate debit items" method for calculating net capital, a broker-dealer's ability to increase leverage is limited through the application of haircuts to proprietary positions rather than through the application of a leverage standard from the aggregate indebtedness standard.

- The OIG Report's conclusion regarding the interaction of capital and secured funding is misguided.
  - In analyzing Bear Stearns's efforts to increase its relative reliance on secured rather than unsecured funding, the OIG Report states that this shift called into question "whether Bear had enough capital to sustain its business model." This statement focuses on capital -- not liquidity -- as the primary issue causing Bear's collapse, and TM believes it is fundamentally incorrect in concluding that such activity points to inadequate capital at Bear.
  - Further, the OIG Report states that even though Bear had increased its reliance on secured funding, it was "unable to obtain" enough to save the firm in March. TM submits that Bear never would have been able to obtain enough funding because the firm was experiencing a run-on-the-bank by counterparties that provide secured funding.
  - A firm's decision as to the form of funding is based on many factors such as term, diversification, collateral, stability of lender, maintaining relationships and cost. It was widely believed that secured funding was more stable and reliable than unsecured funding. Also, the cost of unsecured funding increased substantially for all financial institutions during and after the Summer of 2007. In these circumstances, it is understandable that many financial companies, including Bear, sought cheaper, more stable sources of financing through secured funding. Also important was the collapse of the securitization business. The high cost of funding was an effect of the collapse of securitization rather than its cause.
  - The OIG Report incorrectly states, based on a review of informal staff notes and internal memoranda, that TM did not believe it had a mandate to compel Bear Stearns to raise additional capital if the firm's Basel II capital ratio was greater than 10%.
  - As TM explained in informal comments, the CSE rules expressly and broadly state that the Commission can impose additional conditions on either the broker-dealer or the holding company if the Commission finds it necessary and appropriate in the public interest or for the protection of investors. See Exchange Act Rule 15c3-1e(e)(7). There are also specific conditions that would trigger Commission action. Exchange Act Rule 15c3-1e(e)(1)-(6).

- TM has always believed and represented from the beginning of the CSE program that it had broad authority related to financial responsibility to mandate that a broker dealer and or its ultimate holding company raise capital or achieve the same end by reducing the balance sheet, as well as direct the firm in the sale of assets or customer accounts as the facts and circumstances may warrant.

Background on the CSE Rules

TM believes that it is useful for the reader to understand certain fundamental features of the CSE rules. The CSE rules incorporate by reference the Basel Standard, the capital adequacy regime applicable to internationally active financial institutions, including commercial banks, on a global basis. The Commission has sought to apply this standard in a conservative manner, in particular with regard to charges for the positions held with trading intent, which are a significant share of those held overall by securities firms. Specifically, firms have been required to augment value-at-risk charges (VaR), computed using internally-developed statistical models, with fixed percentage haircuts. These additional haircuts are, in fact, a multiple of the value-at-risk charges, and so, are more conservative.

Because the Commission recognized that the primary risks to securities firms are those associated with funding, the CSE program imposed a liquidity requirement in addition to the Basel Standard. It is important to note that this requirement, which mandated firms hold significant pools of liquid assets, is not part of the Basel Standard.

In the wake of crises at Bear Stearns, Northern Rock, Countrywide, and a number of other institutions, the Basel Committee on Banking Supervision, which developed and promulgated the Basel Standard, has initiated a number of projects intended to modify the Basel Standard to reflect the lessons of recent events. TM staff has actively engaged in this effort at the behest of Chairman Cox. TM staff co-chair one Basel committee dealing with these issues, and participate in another, which are working to strengthen in a number of areas the capital standards applicable to internationally active institutions. The Basel Committee has expanded its work to include consideration of guidance, and perhaps explicit standards, regarding liquidity risk management for financial institutions. Here again, TM staff has been actively involved. So while the Commission staff believed that capital and liquidity standards applicable to CSEs were conservative relative to international norms prior to the collapse of Bear Stearns, they join other regulators in recognizing that further strengthening and expanding these standards to include liquidity is necessary in the wake of recent events.

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.

Management Response (Concur or Non-concur):

We concur with the recommendation, and have either already undertaken or already completed work that responds to the recommendation.

Since Bear's collapse we have:

- Worked with the Basel Committee on Banking Supervision to implement the Chairman's call for amended capital adequacy standards for internationally active sophisticated institutions to deal explicitly with liquidity risk.

- Jointly with the Federal Reserve, established new stress scenarios as a basis for sizing liquidity pool requirements based on the response to shorter, more extreme events entailing a substantial loss of secured funding, more severe liquidity outflows from prime brokerage activities and liquidity drains due to operations frictions such as in derivatives settlements and timing considerations related to margin postings.

- Jointly with the Federal Reserve, strengthened the liquidity requirements for CSE firms relative to their unsecured funding needs, and closely scrutinized the secured funding activities of each CSE firm, with a view to lengthening the average duration and broadening the diversity of all funding arrangements.

Like Recommendation 1, Recommendation 2 is fundamentally flawed, as it based on the same analysis. In addition, as we informed the OIG in our informal comments, the analysis is inaccurate in the following ways:

- The OIG Report's statement that the CSE program liquidity guidelines were inadequate because the time horizon for a liquidity crisis to unfold is likely to be less than the one-year period, and secured lending facilities are not automatically available in times of stress, presupposes that the loss of all secured funding was reasonably predictable. It also ignores the difficulty of providing adequate liquidity for this event.

- TM has stated clearly that its liquidity pool requirements, like those of other international and domestic regulators contemplating similar issues, did not anticipate a complete unwillingness of lenders to provide financing on quality assets (such as Treasuries or agency securities). This would include the availability of committed secured lending facilities.

- From the standpoint of unsecured funding, applying a one year liquidity requirement to replace unsecured funding was itself a logical approach. The concept underlying the one-year liquidity requirement for unsecured funding was that, should a firm experience a severe event such that unsecured lenders decide on day one to cease lending, the firm would have a liquidity pool sized to allow it to replace the unsecured funding as it matured over a one-year period.

- The 60-day cash flow analysis is a different metric that provides the firm another perspective. It is a short-term cash flow analysis focused on a more acute event.

- Also, given that US and international credit markets have been in crisis for over a year, the one-year unsecured funding liquidity pool requirement remains relevant.

- The OIG Report's suggests that TM staff should have recognized that terminations of Bear's committed secured evergreen facilities were a predictor of a "run-on-the-bank." However, during 2007 availability of longer-term secured funding including evergreen facilities was declining for most investment banks, so that by March, an increasing amount of secured funding was provided on a short-term basis. This was phenomenon visible at many firms and was well understood at the time by TM staff.

- The OIG Report's statement that OIG staff could not determine whether TM staff received information on secured lending facilities, including evergreen is unsupportable. As we explained in informal comments to OIG , since at least August 2007 TM staff periodically received information on the availability of secured evergreen facilities in Fixed Income Inventory Analysis reports compiled by Bear Stearns. Also, TM staff explained that in weekly and daily discussions with Bear's fixed income funding desk and with the Treasury managers, Bear informed TM staff of significant losses of such evergreen facilities.

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 prompt CSE firms to take appropriate actions to mitigate such risks.

Management Response (Concur or Non-concur):

We concur with the recommendation, and either already had in place processes, or have since undertaken efforts that respond to the recommendation.

- The CSE program incorporates an assessment of a firm's concentration of securities into the firm's risk management processes and systems.

- TM staff have in the past instructed CSEs to reduce outsized, or concentrated exposures related to lending to specific sovereigns, particular instruments or risk factors .

However, the recommendation misapprehends the role of the Commission in overseeing CSEs.

- The OIG Report's conclusion at base is an indictment not of the CSE program's assessment of risk management systems, but of Bear's fundamental business strategy.

- At the time of Bear's CSE approval and thereafter, it was apparent to the Commission and CSE staff, as well as to Bear's equity and debt investors and the market, that Bear Stearns business strategy was focused on US-based fixed income generally and mortgages in particular.

- It is worth noting that a number of other institutions supervised under a variety of regulatory regimes, including Indy Mac, Countrywide and Northern Rock, likewise collapsed because of a business model that relied heavily on mortgage origination or securitization. Moreover, as announced by the US Treasury Department on September 7, 2008, the US Government has placed Fannie Mae and Freddie Mac in conservatorship as a result of the losses they suffered on their mortgage-based holdings.

- The Commission's responsibility was not to dictate business strategies to Bear Stearns. Rather, it was to review whether the exposures taken on by Bear Stearns were properly controlled and measured.The focus of Commission staff on Bear's governance processes was intended to insure that these exposures were reported to senior management in a manner that accurately reflected material risks.

- To discharge this responsibility, Commission staff monitored the risk profile of the firm in the aggregate and at the desk level using a variety of metrics, and discussed with the firm's independent risk management instances where limits were exceeded. These exposures were reported both to Bear's senior business Heads as well as to the Executive Committee regularly.

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.

Management Response (Concur or Non-concur):

Given the current public discussions about the utility of leverage ratios for securities firms, we concur with the recommendation and believe it is important to address this issue with fellow regulators. The Recommendation, however, minimizes the problems with imposing limits through leverage ratios.

- Financial institutions are, by their very nature, highly leveraged businesses.

- The Commission has not sought to impose explicit leverage limits on CSE holding companies for several reasons. First, analysts can easily assess leverage from public financial information. Second, a leverage ratio is a crude measure, and implicitly assumes that every dollar of balance sheet involves the same risk, whether due to a treasury bond or an emerging market equity. Further, leverage tests do not at all capture the potential exposures of derivative products that remain off balance sheet. Finally, a leverage limit creates an incentive for firms to move exposures off balance sheet, through instruments ranging from over-the-counter derivatives to the SIV structures that proved highly problematic for other financial institutions (not investment banks) in the last year.

- While a leverage limit may be effective for an institution that does not deal in derivative products, highly complex institutions can easily evade any leverage limit imposed, often with the unintended consequence of increasing the firm's exposure to complex instruments.

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.

Management Response (Concur or Non-concur):

TM concurs with the goals of recommendation 5, and the CSE program does ensure that these standards are satisfied.

- However, the OIG Report does not recognize the progress achieved through the review process. While the OIG Report correctly notes that the staff raised concerns with Bear Stearns regarding its coverage and staffing of its Model Review Function, the OIG Report does not reflect the resulting subsequent progress. In fact, the firm did respond to staff concerns, and created and implemented action plans to address them.

- For example, in September 2006 Bear hired two dedicated model control staff persons for MBS and cash products and three completed model reviews were presented at this time. The MBS and Cash inventory models were reviewed between September 2006 and December 2007.

- With respect to the risk metrics that the firm used in managing its market-risk to mortgage products, the OIG Report contains key omissions, and incorrect conclusions.

- The firm in fact made significant progress in improving its VaR infrastructure subsequent to approval in response to Commission staff concerns. For example, the firm followed through on recommendations to enhance control over the VaR system. Inputs to VaR models were regularly updated following application approval.

- Since the beginning of the SEC oversight of Bear as a CSE, Bear regularly improved and expanded its data sources. In some instances where data sources were limited, the instruments were immaterial. For example, mortgage derivatives, which were distinct from CDS and ABS CDO positions, were an immaterial exposure with only de minimis impact on Bear's profit and loss.

- The OIG report assumptions and conclusion regarding Bear's model review staffing are inaccurate. Specifically, while certain model reviewers left Bear in 2006 and the head of model validation resigned in early 2007, TM staff discussed staffing and the model validation process with the head of Bear's Model Review Committee. The model control function for mortgages was shifted to the product line risk managers while a new Head of Model Validation was hired in Sept 2007. Model control work on mortgages was unaffected during the interim period.

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.

Management Response (Concur or Non-concur):

TM concurs that skepticism is warranted when reviewing firm risk models, but we believe that Recommendation 6 is based on incomplete information.

- Bear Stearns' use of scenario analysis was consistent with industry practices: virtually the entire banking sector failed to anticipate the magnitude and scope of the housing decline that is still ongoing.

- TM staff did in fact discuss repeatedly with Bear risk officers the firm's Alt-A and option ARMS positions in addition to subprime.

- Therefore, the OIG report conclusions, which are based on the OIG expert's review of internal TM memoranda that did not mention forward-looking risk scenarios, such as a complete meltdown of mortgage market liquidity, are based on incomplete information.

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.

Management Response (Concur or Non-concur):

We concur with the recommendation, but believe that it reflects what TM and Bear had already accomplished.

- Contrary to the OIG Report statements, Bear did incorporate into its risk scenarios those risks discussed in meetings with TM staff, such as a housing-led recession scenario.

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.

Management Response (Concur or Non-concur):

We concur with the recommendation as written, but we believe it reflects a misunderstanding of the marking process and the oversight capabilities of supervisors.

TM did inquire into the mark disputes referenced in the OIG Report.

- TM acknowledges certain, persistent mark disputes indicate illiquid assets and valuation issues that TM should inquire into. However, mediating most or all of any individual firm's disagreements over marks across all its counterparties is not feasible. Additionally, many of the disputed margin calls related to products such as customized structured credit derivatives where price transparency is an issue and variations in marks is conceivable.

- The OIG report does not provide the proper context when discussing certain $100 million mark disputes Bear had with counterparties. Bear had more than 25,000 trades with JPM and, given the nature of the counterparty, a highly-rated financial institution, the capital impact under Basel II would be de minimis.

- Therefore, TM believes that the OIG report assumption that firms are collaborating to create capital was not properly substantiated.

- The OIG report confounds marking versus price verification processes at investment banks, and does not consider all the information provided to OIG by TM regarding price verification processes.

Background on Industry Practice:

First, we should point out that margin disputes are unavoidable particularly when markets become less liquid or illiquid. This is an issue that all dealers are facing today and the total disputed numbers at Bear Stearns were much smaller than at other institutions.

With respect to the OIG report assertion about using traders' marks for profit and loss, it is universal industry practice (and endorsed by various descriptions of best practices such as the Group of 30) for traders to mark firm inventory for purposes of books and records. It is then that an independent control group has the role of validating or substantiating those marks via an independent price verification process.

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.

Management Response (Concur or Non-concur):

TM concurs with the recommendation, but we believe the findings are inaccurate.

- Contrary to the OIG Report assertion, Bear did not use inconsistent VaR numbers:

- The OIG expert supports this conclusion by noting that Bear's trading desks evaluated profits and risks individually and so assumes VaR was not implemented firmwide.

- As TM already explained in informal comments, Bear's trading desks and businesses used a variety of metrics to measure and manage its risk. VAR, however, was implemented firm-wide.

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.

Management Response (Concur or Non-concur):

TM concurs with the recommendation and either already had in place processes, or have since undertaken efforts that respond to the recommendation. However, we believe the findings underlying Recommendation 10 are unsupported.

The report asserts TM should have considered expanding the list of assets that require a full deduction from capital. However, the Report did not present evidence that TM did not follow Basel II or did not apply sufficiently conservative capital treatment in light of the relative illiquidity of assets. The analysis to support this assertion is incomplete or without basis.

As explained in informal comments to the OIG, TM applied Basel II correctly and did employ conservative capital treatment where appropriate.

- Specifically, with respect to illiquid assets, Basel II does not require full deduction of most illiquid assets, many of which attract capital charges of 8%. TM did require full deduction for certain illiquid assets, such as mortgage residuals.

- For assets held in the trading book, Bear took significant mark-downs in mortgage-related assets which resulted in a reduction of Tier 1 capital, as it should.

- With respect to the report's description of Bear's loan to the BSAM High Grade hedge fund, as TM explained in informal comments, the loan was overcollateralized, and Basel II did not require Bear to reduce its capital by the full amount of the loan.

- Specifically, TM explained to the OIG that Bear provided the replacement secured funding to BSAM funds at current marks, that is net of write-downs, and with haircuts. Bear took capital charges for the resulting secured exposures that far exceeded Basel II requirements, and effectively treated the positions as if these had been held on Bear Stearns' balance sheet.

- When the BSAM funds failed to make margin calls in July, the assets were indeed taken onto Bear Stearns' books.

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

Management Response (Concur or Non-concur):

TM concurs with this recommendation and we have already had in place processes, or have since undertaken efforts, that respond to the recommendation.

- TM acknowledges that SEC senior officials should engage the CSE boards of directors periodically to review risk management issues and assess risk tolerance or discuss particular issues.

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[1] for this deviation from the current rule's requirement.

Management Response (Concur or Non-concur):

TM understands the recommendation and will present to the Commission whether to require compliance with the existing rule or to propose rule amendments that would permit the internal auditor to perform this review.

However, we believe that the finding is incorrect. We raised the following issues with respect to this finding and recommendation:

- TM has specific authority to issue exemptions from the net capital rule of which 15c3-1g is an appendix. See 17 CFR 200.30-3(a)(7)(ii). The functions of the Director of Trading and Markets include responding to no-action requests from CSEs. See 17 CFR 200.19a.

- TM strongly disagrees with the statement that there are serious questions about the wisdom of its decision. The Rule permits the external audit to be based on

[1] 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.

"agreed upon procedures" between the firm and its external auditor. After much negotiation between the Division of Trading and Markets, the CSEs and the external auditors, the external auditors would not agree to perform more than a "check the box" review of the risk management control systems for fear of liability. Thus, it was apparent that the "agreed upon procedures" would be of minimal benefit.

- In contrast, TM believed that a substantive review of procedures by internal audit, which included a determination of whether the procedures used by the firm were sufficient for the purposes intended, would be a more effective check on the firms' risk management process. As a result, the internal audits undertaken by the firm were greater in scope and substance than would have been performed by the external auditors under their agreed upon procedures. The internal audit department's review of internal risk management controls also would be conducted throughout the year rather than as a once a year audit process. The independence, staffing levels, and audit scopes of the internal audit departments were reviewed by OCIE and the Division of Trading and Markets as part of the application process.

- The report's statement that "the external auditor's work is more strictly regulated as the PCAOB regulates external auditors" is misleading due to the lack of substantive auditing standards for reviewing a firm's risk management control systems. It also is not clear that the PCAOB has in place a process for reviewing such auditing work.

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.

Management Response (Concur or Non-concur):

The Division of Trading and Markets does not concur with this recommendation.

- As TM informed OIG in earlier comments, there is no requirement in the CSE rules that CSEs have an internal or external communication policy. Likewise, there are no SEC rules requiring non-CSE broker-dealers to maintain such communication policies, and we are unaware of any such requirement for any other SEC regulated entities. Although TM noted that Bear Stearns had a communications strategy within its Contingency Funding Plan, there was no TM "assessment" of that strategy, as stated by OIG.

- What OIG has failed to appreciate is that the CSEs are part of public holding companies that have securities registered with the SEC and listed and trading on U.S. securities exchanges. As public companies, the CSEs are subject to myriad

SEC disclosure requirements, including Regulation S-X and Regulation FD. Corporate disclosures such as those covered in Bear Stearns's CFP communication strategy are subject to those disclosure requirements, and the SEC's Divisions of Corporation Finance and Enforcement actively enforce compliance with these requirements. Accordingly, it would be inappropriate for TM to opine on, or otherwise influence, the corporate communications of these public companies.

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.

Management Response (Concur or Non-concur):

TM concurs with the recommendation, and will undertake efforts that fully respond.

However, the analysis underlying the recommendation does not show evidence that the CSE program failed to adequately resolve issues, or that material issues were not monitored.

- Rather, the OIG report reaches its conclusion that the program does not adequately track issues from its criticism of the recordkeeping of those issues. While we recognize that an automated audit trail is desirable, its absence is not proof that issues are not adequately tracked, merely that recording of those issues could be improved.

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.

Management Response (Concur or Non-concur):

We understand the recommendation, but believe that these issues are either moot or long since addressed.

- Moreover, as we explained in out informal comments, the recommendation is predicated on an incorrect understanding of the division of responsibilities, past and present, between the Division of Trading and Markets and OCIE. The report criticizes TM staff that "assumed" issues were the responsibility of OCIE, whereas in fact for eighteen months subsequent to the Bear Stearns application examination, the issues were in fact OCIE's responsibilities.

- In addition, as we informed OIG in our informal comments, TM monitored the material issues to assure that they were resolved. TM and OCIE agreed that one issue mentioned in the report, the issue regarding workpaper retention at Bear Stearns, was material. The firm was required to respond in writing to TM before a recommendation was made that the Commission act upon the application, and firm in fact agreed to retain workpapers. Subsequent oversight by TM personnel relied on access to these workpapers and so verified that corrective action had in fact occurred. With regard to the second issue mentioned in the report, as we explained in our informal comments, there is no basis for the statement about materiality of the VaR model issue. The OIG expert did not directly review the models, related documents, and the firm's books and records. Without a thorough review and reasonable basis for the statement, its materiality finding is conclusory. Appendix III indicates clearly that neither OIG nor the expert conducted an independent analysis of Bear's risk management system.

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.

Management Response (Concur or Non-concur):

The Division of Trading and Markets does not concur with this recommendation.

- As the Division staff explained in informal comments, the Commission was clearly informed of the examination findings and their status when they approved the CSE applications.

- In addition, the OIG report's characterization of the application process as "less meaningful" is inaccurate. The Commission was well within its authority to approve such applications, given they were notified of OCIE's findings, of TM's assessment of the materiality of the issues with respect to the application, and of TM's direct follow up with Bear Stearns (or other CSE) regarding the identified issues and resolution.

- The OIG report fails to appreciate that CSE examinations were an ongoing process. As part of its normal business operations, a CSE constantly reviewed its risk management systems to assure that those systems adequately dealt with marketplace changes. Consequently, the staff continually monitored a firm's risk management systems to identify changes a CSE made to its risk management systems and to determine whether those changes appropriately addressed the perceived issues and that they were adequately implemented. For instance, if marketplace changes caused an increase in a CSE's backtesting exceptions, the CSE could amend its models to capture additional data points in an effort to decrease such exceptions. In such cases the staff would review and approve those changes to the CSE's models.

- With respect to Bear in particular, the European Commission's Conglomerates Directive set a fixed deadline by which the firm needed to be supervised on a consolidated basis. Given this timeline and the level of materiality of the issues involved, TM did not believe it necessary to wait for the formal transmittal of a written deficiency letter or the receipt of a written response before recommending the Commission approve the order.

- Finally, the OIG report's statement that TM failed to follow up on issues raised by OCIE during its inspection of Bear is incorrect. As explained to OIG staff in TM's informal comments, TM indeed resolved material issues identified by OCIE and the report has not cited any factual basis for finding otherwise.

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.

Management Response (Concur or Non-concur):

TM concurs with this recommendation, and will work with CF to assess the degree to which additional information and information would be useful.

- However, as the staff explained in its informal comments, TM staff met repeatedly with CF staff during 2007 and 2008 to discuss the issues cited in the

report around public disclosure of capital information. No acknowledgement of those efforts is made in the formal draft report.

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.

Management Response (Concur or Non-concur):

TM concurs with this recommendation, and will work with OCIE and the Chairman's office to determine how collaboration should be further formalized.

- As we informed OIT in our informal comments, however, and what is not described in the OIG report, is that TM and OCIE issued joint guidance to all staff regarding the division of responsibilities and the sharing of informatien with respect to the CSE firms on March 19, 2007, shortly after the Commission transferred inspections responsibility from OCIE to TM. TM has complied with all provisions of that guidance.

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.

Management Response (Concur or Non-concur):

TM concurs with this recommendation, and will work with ORA and the Chairman's office to determine how collaboration should be further formalized.

- We note, however, that TM's relationship with ORA is strong; as evidenced by collaboration on a number of issues ranging from credit rating agencies to analysis of Bear Stearns' failure.

- Formalizing an agreement between two offices within the Commission would be relatively unusual, in contrast to concluding a formal MOU with an external agency such as the Federal Reserve.

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.

Management Response (Concur or Non-concur):

Please see CF letter submitted separately.

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.

Management Response (Concur or Non-concur):

Please see CF letter submitted separately

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.

Management Response (Concur or Non-concur):
TM concurs with this recommendation.

- We note, however, that this issue was previously considered when implementing the rules for Supervised Investment Bank Holding Companies (SIBHCs).

- In Exchange Act Release 49831, the Commission found that its supervision of an investment bank holding company as a SIBHC would be necessary and appropriate only when the IBHC is affiliated with a broker-dealer that has a "substantial presence" in the securities business. The requirement that a firm have a "substantial presence" was to identify broker-dealers and their holding companies whose failure could have a materially adverse impact on other securities market participants, thus reducing systemic risk.

- Under the SIBHC rules, among other things, evidence that an investment bank holding company owns or controls a broker-dealer that maintains $100 million in

tentative net capital would be sufficient to demonstrate a substantial presence in the securities business. One firm has applied to be supervised as a SIBHC.

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.

Management Response (Concur or Non-concur):
We understand the recommendation, and are now actively working with the Chairman's Office to consider what changes are appropriate in light of recent developments. In addition, the Chairman has made a number of requests for legislative changes that could require further modifications of the CSE program.

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.

Management Response (Concur or Non-concur):

TM concurs with this recommendation, and we have already undertaken efforts that fully respond to it.

- We have posted a position for an Assistant Director (CSE Inspections) in New York, as well as staff jobs for the CSE inspections units in both New York and Washington.

- It is worth noting, however, that this recommendation arises in part from a misperception of the CSE inspections program.

- As we informed the OIG in our informal comments, three inspections have been conducted and two inspection reports have progressed to the final stages of review in the 13 months since responsibility was transferred from OCIE and in the 9 months since TM's inspections unit became operational.

- In addition, OIG staff was provided with a term sheet document, shared with the Commission in Fall 2007, which set out the specific milestones used to assess progress in each inspections project. While the TM staff would certainly prefer that all three inspections were fully complete at this point, the unprecedented

financial market conditions that have prevailed through much of this year have affected the pace of this work, and much else.

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.

Management Response (Concur or Non-concur):

TM concurs with this recommendation, and we have already undertaken efforts that fully respond to the recommendation.

- As we informed the OIG in our informal comments, the finding is based upon flawed understanding of the current situation. In particular, on March 1, 2005, the Division Director of TM directed the Division staff to follow OCIE's Ethics Guidelines with two minor variations.

- For simplicity's sake, TM management recently concluded that staff should follow the OCIE guidelines. An email has been sent to the staff providing that clarification.

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.

Management Response (Concur or Non-concur):

TM concurs with the recommendation, and we have already undertaken efforts that fully respond to the recommendation. Since inception, TM has collaborated with a large number of other regulators in the context of the CSE program, including the Federal Reserve Board, the New York Federal Reserve Bank, the FDIC, the State of Utah, and others. Efforts continue to expand the range of both bilateral and multilateral activities.

MEMORANDUM

TO: David Kotz
Jill Lennox
Office of Inspector General

FROM: Lori Richards, Director
Office of Compliance Inspections and Examinations

SUBJECT: OIG Draft Report 446 -A: *"SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program"*

DATE: September 24, 2008

The Office of Inspector General provided a draft of its report, OIG Report 446 -A *"SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program"* and has requested that we provide a written response indicating whether or not we concur with each recommendation that refers to the Office of Compliance Inspections and Examinations. This memo outlines our response.

There are three recommendations in the Report that are directed to the Office of Compliance Inspections and Examinations (OCIE) (Recommendations 18, 22, and 25), and one recommendation that references the Office (Recommendation 15). Our response to each is discussed below.

> **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.

OCIE concurs with Recommendation 18. We believe that a collaboration agreement that maintains a clear delineation of responsibilities between TM and OCIE with respect to the Consolidated Supervised Entity (CSE) program would improve the effectiveness of the oversight by both offices. While the two offices issued a memorandum on March 19, 2007 to all staff involved in CSE oversight that described the allocation of responsibilities and the reallocation of CSE examination oversight from OCIE to TM, a more detailed agreement could enhance the information sharing and corroboration between the two offices.

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.

OCIE concurs with Recommendation 22. A joint TM, OCIE and IM task force led by the Office of Risk Assessment to determine the costs and benefits of supervising firms with significant customer assets and unregulated affiliates could be very valuable in producing evidence supporting the need for consolidated oversight. At the current time, the SEC is generally limited in its oversight authority of financial firms to registered broker-dealers, investment advisers, and transfer agents; the Consolidated Supervised Entity oversight is a voluntary program. In the current environment, where firms are highly diversified and deal in very complex products and businesses, with much of this activity in unregulated material affiliates, consideration of additional statutory authority would be valuable.

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.

OCIE concurs with Recommendation 25. OCIE has implemented strong written ethics procedures for the OCIE examination force, with requirements and prohibitions that are more stringent than the SEC procedures that apply to all SEC staff. Examiners are entrusted with special responsibilities that require the utmost integrity, avoidance of even a remote appearance of a conflict of interest, and the highest level of professional conduct. Because SEC exam staff are evaluating compliance with the law and effectiveness of risk management controls, their credibility, judgment, and independence must be above reproach. For this reason, OCIE believes that the stringent ethics procedures that apply to OCIE examination staff should apply consistently to all SEC staff that perform examinations, and would work with TM to develop an ethics manual for the CSE program.

While Recommendation 15 does not require any action by OCIE, it does reference the Office and therefore we add the comment below.

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.

We note that the OCIE examination process generally involves requesting and receiving documents, reviewing and evaluating those documents and conducting an onsite review, determining if any deficiencies or weaknesses exist, conducting an exit interview with the firm, producing an examination report and detailing deficiencies in a deficiency letter sent to the firm examined. The OCIE staff request that the firm provide a detailed written response to the deficiency letter that describes any corrective action. OCIE evaluates the response and determines whether the firm has responded appropriately. For significant findings that do not appear to be appropriately resolved, OCIE works with the firm on resolution. All responses to findings that required action by the firm are then followed up in the next examination. The most recent CSE examination of Bear Stearns that was conducted by OCIE resulted in an examination report issued by OCIE in December 2005, and Bear Stearns provided its response in January 2006. The results were provided to TM. TM subsequently assumed responsibility for the overall CSE examination program in March 2007, and OCIE ceased CSE examination activities as of that date (OCIE examiners continue to be solely responsible for examinations of broker-dealer firms that are part of CSEs).

***

As an additional matter, on page 37 of the report you indicate that in 2007 the Government Accountability Office commented on our method of tracking recommendations regarding Self-Regulatory Organization ("SRO") inspections. Please note that following receipt of that comment, OCIE developed a formal tracking system for recommendations in SRO inspections, and deployed the system for use in SRO inspections in early 2008.

Finally, you requested that OCIE indicate whether there is non-public OCIE information in the report. Any non-general examination-related information would be considered non-public. Examples of this are found on pages 20, 37, and 39 of the report.

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

DIVISION OF
CORPORATION FINANCE

September 24, 2008

H. David Kotz
Inspector General
U.S. Securities and Exchange Commission
100 F Street, NE
Washington, DC 20549

Dear Mr. Kotz:

Thank you for the opportunity to respond to the recommendations relating to the Division of Corporation Finance in your August 18, 2008 draft report *SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program* (Audit Report No. 446-A).

In 2007, Corporation Finance selected Bear Stearns' 2006 Form 10-K for review. On September 27, 2007, two months prior to its internal guideline for issuance of a comment letter to a company selected for review, Corporation Finance issued its comment letter to Bear Stearns. That letter included a focus on subprime mortgage matters. Soon after receiving this letter, and well before Bear Stearns' collapse in March 2008, Bear Stearns began adding improvements to its disclosures about subprime mortgage securities in its publicly available filings. Those additional disclosures appear in:

- Its Form 10-Q filed on October 10, 2007 (details on net inventory markdowns related to losses in residential mortgages and leveraged finance areas);
- Its Form 8-K filed on November 15, 2007 (updated information on collateralized debt obligations and subprime related exposures);
- Its Form 8-K filed on December 21, 2007 (fourth quarter financial results, including a detailed exhibit of CDO and subprime mortgage asset exposures); and
- Its Form 10-K filed on January 29, 2008 (schedule of subprime exposure).

Division of Corporation Finance concerns about Audit Report findings on Bear Stearns filing review

In Finding 8 of your audit report, you recommend what could be sweeping changes to Corporation Finance's full disclosure program based upon conclusions you draw from a *single* Corporation Finance review – the review of Bear Stearns' 2006 Form 10-K. You include conclusions regarding that review in Finding 8 with which I cannot agree, the two most significant of which are:

1. That Corporation Finance's "untimely review deprived investors of material information that they could have used to make well-informed investment decisions," and

2. That Corporation Finance's review of Bear Stearns was "untimely."

The Division of Corporation Finance review of Bear Stearns resulted in improved and timely disclosure for investors

As to the first of these conclusions, you indicate that "Bear Stearns' response letter (coupled with CF's comment letter) contained material information that investors could have used to make well-informed investment decisions." You also conclude that "the information (e.g., Bear Stearns' exposure to subprime mortgage securities) could have potentially been beneficial to dispel rumors that led to Bear Stearns' collapse." While you go on to identify information in that letter and state that Albert S. Kyle, the OIG expert, believes that this information would have been "helpful" to investors, you do not note the significant redactions of information. I do not understand the basis for your or Professor Kyle's conclusions.

First, as I indicate above, Bear Stearns began making additional public disclosures concerning its subprime exposures in its public filings soon after it received our September 27, 2007 comment letter. In addition, the information that was in Bear Stearns' response to our comment letter, which we later posted on our website, was heavily redacted under the confidentiality provisions of Rule 83. I note that in well over 100 places in the letter, Bear Stearns redacted significant information.[1] I have difficulty agreeing with Professor Kyle that this heavily redacted letter, which would not have

[1] Redacted information included: various metrics utilized to determine FICO scores and designation of loans as subprime; loan to value ratios; subprime production in 2005 and 2006; trend data for loan-to-value ratios and full-document loans during 2007; percentage of loans with full documentation; size of data sample upon which risk models are based; table of margin requirements by collateral type; fair value of subprime loans at various dates; fair value and balance of non-performing subprime loans; fair value of retained interests in subprime securitizations; reduction of subprime exposure from hedging; fair value of securitization trusts; amount of subprime loans serviced; amounts securitized through SPEs; amounts provided to finance subprime collateral to counterparties; fair value of other subprime related instruments; revenues derived from subprime activity for all periods presented; litigation reserves.

become available under our posting policy until at least 45 days after we completed our review and after Bear Stearns had made additional subprime disclosures (which included actual numeric data and dollar amounts), would have been "helpful" to investors or would have provided material information that Bear Stearns had not already provided in the public reports it filed with us. The redacted letter, however, is publicly available and I urge investors and other readers of this report to review the Bear Stearns response letter, and reach their own conclusions about the importance of the additional information appearing in the redacted letter, particularly in light of public disclosures in the Forms 8-K, 10-Q and 10-K I reference above.[2]

The Division of Corporation Finance review was timely

As to the second conclusion with which I cannot agree, you conclude that "CF's filing review of Bear Stearns' 2006 10-K was not timely." This is not correct and the implication of your conclusion is that we should review Forms 10-K immediately upon filing and that a failure to do so means that we are "untimely." As background, we have a selective review program, guided by Section 408 of the Sarbanes-Oxley Act of 2002, through which we review all public companies on a regular and systematic basis, at least once in a rolling three-year period. Following this statutory direction, we select for review between 35% and 40% of public companies each year – which results in approximately 4,000 to 4,500 company reviews. We do not have a requirement to review each company each year and there are many companies that we do not select for review in any given year. Although most Forms 10-K are filed in February and March, we conduct our reviews of those companies we select for review throughout the year.

As you correctly point out, our long standing internal guideline is that we should issue our initial comments to a company we select for review before the end of the company's fiscal year. By following this guideline, we give the companies we select for review time to reflect our comments, if appropriate, in the disclosure in their next Form 10-K. As you state in your report, we met this internal guideline in our review of Bear Stearns' 2006 Form 10-K, filed on February 13, 2007, by providing comments on September 27, 2007 – over two months *prior* to the end of Bear Stearns' fiscal year on November 30, 2007. Thus, I cannot agree with your statement that the amount of time we spent to review Bear Stearns' filing is "simply unacceptable."[3]

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[2] http://www.sec.gov/Archives/edgar/data/777001/000091412108000089/filename1.txt

[3] In fact, in 2006, the Inspector General (Audit 401) recommended that Corporation Finance consider ways to manage workload peaks resulting from the bunching of Form 10-K filings in February and March. This recommendation reflected the Inspector General's acknowledgement of the difficulties we face in meeting our Sarbanes-Oxley mandated and internal review guidelines. The implication of this Inspector General recommendation in 2006 was actually that we should consider lengthening the timeframe for our filing reviews, not condensing it closer to the February and March filing peak.

As an aside, I should point out that our comment letters to the other four CSE firms, all of which we selected for review in 2007, were sent out well before their fiscal year ends in November and December. We issued comments to Lehman Brothers Holdings Inc. on August 1, 2007; to Morgan Stanley on August 30, 2007; to Goldman Sachs Group, Inc. on September 20, 2007; to Merrill Lynch & Co., Inc. on September 25, 2007; and to Bear Stearns Companies, Inc. on September 27, 2007.

Current and periodic reports are the appropriate disclosure mechanism

Separate from any discussion of these two conclusions, I thought it would be useful to provide some background on our review process and its role in prompting good public company disclosure. Our comment letters and company responses are not the mechanism for disclosure of material information to investors envisioned by our full disclosure program. The goal of disclosure of material information to investors, which is paramount in our efforts, is achieved in our program by seeking improvements to a company's public disclosures in its periodic and current reports. Those reports are readily available to all investors. These changes in disclosure are subject to the full liability provisions of the federal securities laws applicable to information appearing in these reports and, when they are included in a periodic report, the safeguards provided by the Sarbanes-Oxley Act of 2002 apply, including senior officer certifications and the disclosure controls and procedures process.

The public posting of comment letters and responses is only a recent development in our full disclosure program and is intended to increase the transparency of our review process and to make this correspondence available to all interested persons at no cost. We believe that companies like to look at the comment letters we send to their competitors to see what comments they might expect, as well as to glean competitive information. To address company concerns about public dissemination of competitively harmful information in their comment response letters, we permit companies to redact such information pursuant to a Rule 83 confidential treatment request. Companies frequently take advantage of this provision, as Bear Stearns did in its response letter in the review of its 2006 10-K.

We intentionally wait until at least 45 days after we complete a filing review before we post correspondence. Our separation of the exchange of views reflected in this correspondence from the disclosure public companies provide in their filings is intentional – we seek to promote a free give-and-take in the review process and to avoid having conclusions drawn from our questions before a company has an opportunity to respond. Frequently, a company's explanation or analysis of an issue will satisfactorily resolve an issue without any changes to previously filed or future disclosure. When a company improves its disclosure, it makes those improvements in its widely available periodic and current disclosure documents, which is where investors expect to find material disclosures. To my knowledge, investors do not use review correspondence, which may be heavily redacted, and which we do not post until 45 days after we

complete our review, as a source of disclosure. To revamp our program to make this back-and-forth correspondence with a company a disclosure vehicle to investors would require significant, and I believe unwarranted, changes to our program, which would significantly undermine its effectiveness for investors.

The Division of Corporation Finance seeks timely responses to its comments

You also discuss Corporation Finance's general practice of requesting, but not requiring, that companies respond to comments within ten business days. While it is true that we rarely insist that a company respond in that timeframe, it is important to note that in many cases, companies do respond during that time period. You recommend that we establish a policy outlining when we expect companies to substantively respond to issues we raise in our comment letters and monitor compliance with this policy.

Our disclosure review program is built on the common goal we share with companies – to enhance disclosure and improve compliance with the disclosure requirements of the federal securities laws. Although the limited consequences of not responding to our comments can be quite significant – for example, a company is required to disclose material staff comments that have been outstanding for six months in its Form 10-K and/or Corporation Finance may refer a non-compliant company or one with faulty disclosure to the Division of Enforcement for further investigation – they are rarely the outcome of a staff filing review. While you recommend that we change our policy in this area, our experience is that most companies do respond to us, in some form, within the ten business days in which we seek a response. Our experience is also that, similar to the Bear Stearns review described above, a company may respond to staff comments in its public disclosure documents. Although we believe that extending the ten business day request-for-response time period will be counterproductive to our ongoing efforts to enhance public disclosure, we will consider your recommendation and how it would impact our program.

Division of Corporation Finance's role with respect to the CSE program

The Commission's CSE program is the focus of your report. You explain in the Executive Summary that your objectives in 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." You also summarize the work of Albert S. Kyle, the expert you obtained to assist you with your audit, and indicate that Professor Kyle's focus was on "the Division of Trading and Markets' oversight of the CSE firms, with a particular focus on Bear Stearns."

The Division of Corporation Finance is not directly involved with the CSE program and, as I understand your report, neither the Division of Corporation Finance, nor its full disclosure program generally, was the focus of your audit or of Professor

Kyle's work. However, in connection with your audit of the CSE program, you did review Corporation Finance's review of Bear Stearns' 2006 Form 10-K, filed in February 2007, and, based on that *single* review, you have recommended what could be sweeping changes to Corporation Finance's full disclosure program. In our full disclosure program, we review the filings of more than 4,000 companies each year. I believe it is inappropriate for you to have reached conclusions, and to have made recommendations, about our program based upon your examination of our review of just *one* company's filings.

I believe, based on the scope of your audit work, that your comments and recommendations to Corporation Finance would have more appropriately focused on our full disclosure program as it relates to the CSE program. To the extent your recommendations do focus on Corporation Finance's interaction with the CSE program, I agree fully that we should examine the interaction between our reviews of the CSE firms and Trading and Markets' administration of the CSE program. For example, we will consider whether we should review CSE firms promptly after they make their annual Exchange Act filings and issue comments, if any, within a specific time period. We will discuss our thoughts on this with Trading and Markets. In addition, in Finding 7, you recommend that we should take concrete steps to improve our collaboration efforts with Trading and Markets and that we should determine whether the information Trading and Markets receives from the CSE firms would be helpful in our reviews of the filings these companies make. As you note, we were not able to respond to your questions during the audit about the potential usefulness of this information since we did not know what it was. Furthermore, as we previously conveyed to you, we are concerned about basing our comments to a company, which we will make public, on non-public information that a company provides to another Division or Office for different purposes. That being said, we will take steps to work closely with Trading and Markets to pursue this.

I appreciate your giving me the opportunity to present my views on your report and I very much appreciate your commitment to present this letter as an attachment to it. Doing so will allow readers to draw their own conclusions, and is consistent with the transparent full disclosure review process I and the staff of the Division of Corporation Finance are proud to administer.

Sincerely,

John W. White
Director

Office of Inspector General Response to Chairman Cox and Management Comments

The Office of Inspector General (OIG) has received responses to its audit report entitled "SEC's Oversight of Bear Stearns and Related Entities: The Consolidated Supervised Entity Program" from Chairman Christopher Cox, the Division of Trading and Markets (TM), the Office of Compliance Inspections and Examinations (OCIE), the Division of Corporation Finance (CF), and the Office of Risk Assessment (ORA).

In total, the Commission's responsible management officials have concurred with 21 out of the 26 recommendations contained in the report.

Response to the Chairman's Comments

We are particularly pleased that the Chairman has commented that he believes that the 26 specific recommendations are well-considered and worthy of support. We also appreciate his comment that the report provides an invaluable and fresh perspective for the agency to carefully review and consider.

Response to the Comments of the Division of Trading and Markets (TM)

The OIG is pleased that TM concurred with 20 out of the 23 recommendations addressed to them in the OIG audit report. The OIG, however, is, quite disappointed in many of the assertions made in TM's "Management's Commentary."

The OIG made supreme efforts throughout the entire audit process to engage and consult with TM on every aspect of the audit report. Over the five months of fieldwork, OIG auditors had weekly and sometimes daily conversations with TM management, including senior officials, on all issues relating to the audit work. In many cases, TM management did not provide full responses to questions posed and issues raised by the OIG.

It is important to point out that specifically because the OIG recognized that this audit involved numerous issues of a technical and complex nature, the OIG retained a renowned and highly-regarded expert on many aspects of the capital markets, and market microstructure in particular, to assist the OIG's efforts. The expert worked closely with the OIG's auditors, providing technical expertise and guidance. The expert also spent countless hours reviewing detailed notes and memoranda that TM staff had prepared during the time periods pertinent to the audit and conversed in detail with TM management and staff.

Even after having numerous conversations with TM staff throughout the audit field work, immediately prior to finalizing the draft report, the OIG convened a meeting with the Director of TM and several senior management officials to discuss the findings and recommendations in the report. TM officials stated that they were unable to provide any substantive responses without viewing the report in writing in its entirety.

Shortly after this meeting, the OIG also provided TM officials with an initial working draft of the report, complete with findings and recommendations, for their comment. TM management provided in response a red-lined version of the report and an additional memorandum containing substantive comments. OIG staff painstakingly reviewed both TM's redlined version of the report and its memorandum. Thereafter, the OIG incorporated many of TM's suggestions, including making major revisions to one finding, and removing another finding altogether. The OIG then provided TM with a second draft for comment and invited another round of substantive responses. The OIG also posed two separate sets of questions to TM officials regarding some of the assertions they had made in response to the working draft of the report. TM failed to provide any response to these two sets of questions.

Instead of responding to the OIG's questions or providing additional substantive suggestions regarding the OIG report, TM decided to issue its "Management's Commentary," which claims the report is flawed and inaccurate, and asserts that TM was not provided with a fair and meaningful opportunity to address the issues raised in the report. It is worth noting that notwithstanding the rhetoric contained in "Management's Commentary," TM concurred with nearly of the report's recommendations. Moreover, while the commentary asserts that the report in fundamentally flawed in all aspects, it provides only a few examples of actual statements being inaccurate, all of whom are relatively minor, even if true, and have no impact on overall findings and conclusions of the report.

We sincerely hope that the tone adopted in TM's "Management's Commentary" is not indicative of TM's unwillingness to take the OIG report and its findings seriously and responsibly as these matters are of utmost importance to the Commission and the country, particularly as lawmakers consider the administration's proposed unprecedented bailout of the nations' financial markets.

Response to the Comments of the Office of Compliance Inspections and Examinations (OCIE)

The OIG is pleased that OCIE has concurred with all 3 recommendations addressed to it, and commented favorably on an additional recommendation.

Specifically, OCIE concurred that the development of a collaboration agreement that maintains a clear delineation of responsibilities between TM and OCIE

would improve the effectiveness of the oversight by both offices and that a joint TM, OCIE and Division of Investment Management task force led by the ORA to determine the costs and benefits of supervising firms with significant customer assets and unregulated affiliates could be very valuable in producing evidence supporting the need for consolidated oversight. OCIE also concurred with the recommendation that TM develop an ethics manual, agreeing that stringent ethics procedures should apply consistently to all SEC staff that perform examinations, and indicated that it would work with TM to develop an ethics manual for the CSE program.

Response to the Comments of the Division of Corporation Finance (CF)

The OIG is disappointed that CF concurred with only 1 of the 3 recommendations addressed to it. The OIG also disagrees with several of the comments contained in the management response submitted by CF.

First, CF indicates that the OIG recommends what could be "sweeping changes" to its program. The OIG's finding concluded that CF has not established guidelines for the timeliness of second level filing reviews. We recommended that CF establish such guidelines and thereafter monitor compliance with the established guidelines. We do not view these improvements to be "sweeping changes" but rather reasonable and necessary management practices.

Second, CF points out that its current view of timeliness, as it pertains to the entire filing review process, is dictated by the requirements of Section 408 of the Sarbanes-Oxley Act (SOX) of 2002, as well its internal guideline of issuing comments before a company's next fiscal year-end. While these factors may guide the timeliness of filing reviews (and the issuance of comment letters) as a general rule, CF ignores the need to address high-risk filings in an expeditious manner. As evidenced by developments in recent years, a company's stock price can have a dramatic downward swing in a very short period of time. Under the particular circumstances involving Bear Stearns, we simply disagree that CF's review of its 2006 10-K was "timely."

Third, CF questions what value to investors an earlier release of its comment letter on Bear Stearn's 2006 10-K and the company's response would have had because those documents were heavily redacted when publicly disclosed. During our audit, we considered whether the information would still have been useful, even though it was redacted, and we concluded it would have been quite useful. Further, the OIG expert opined on the redacted version and found the information to be beneficial.

Fourth, CF notes that under Section 408 of SOX, it is not required to review every company each year, and there are many companies that are not reviewed at all in a given year. While this may be true, CF is overlooking a critical aspect of Section 408, which contemplates that CF will consider the risks associated

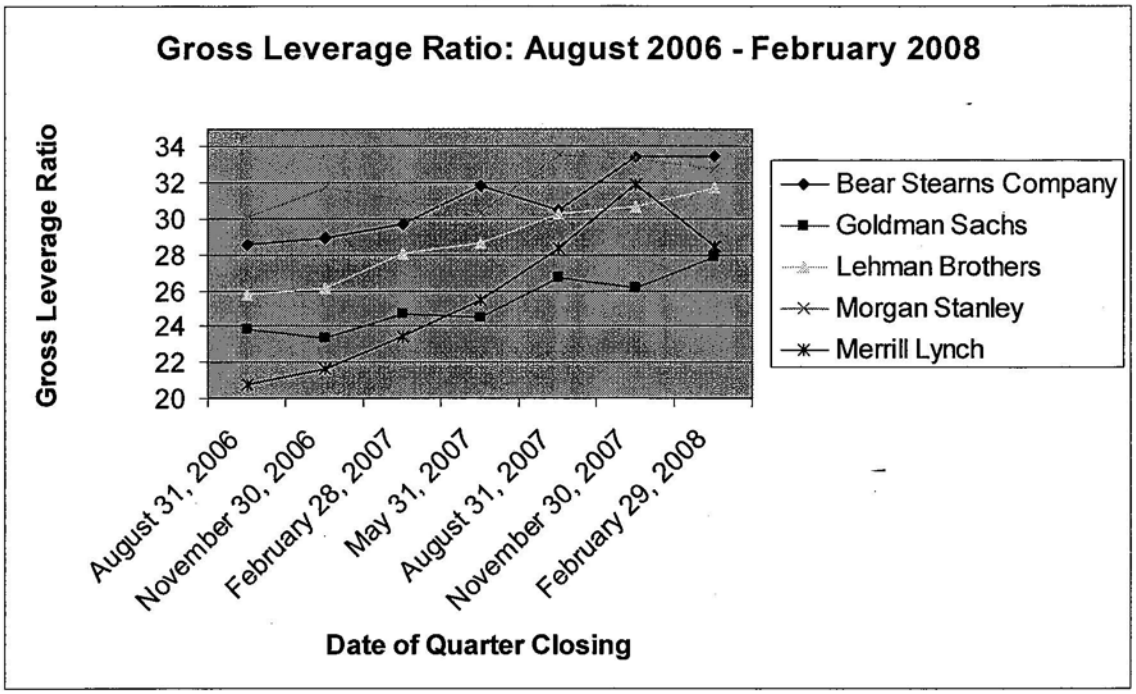
with filings when scheduling its filing reviews. Bear Stearns' 2006 10-K filing was high-risk, in our opinion, given the company's high exposure to subprime mortgages and, accordingly, should have been reviewed in a more timely manner.

Fifth and finally, CF maintains that investors do not use review correspondence, which may be heavily redacted, as a source of information on which to base investment decisions. In addition, CF explains the practice of publicly disclosing the comment letters and the associated responses as a relatively new development intended to increase the transparency of the review process and to make correspondence available to all interested person at no cost. However, according to SEC Insight (now known as Disclosure Insight), an independent and private investment research firm, CF's comment letters and responses can be quite beneficial to investors. In fact, it was stated by SEC Insight as follows:

> The comment letter proposal [to make the comment letters public] provides one important means for *investors* to level the playing field with registrants [companies] by enhancing their ability to do what investors do best in transparent markets; that is, assess and discount risks. [Emphasis added].

Gross Leverage Ratios

Figure 1. CSE Firms- Gross Leverage Ratios



Source: This data was provided by TM. They obtained the information from public filings (*i.e.,* 10-K) and Bloomberg. We verified each firm's year-end gross leverage ratio amount, but did not verify its quarterly ratios.

Criteria

Basel II Standards.

Final Rule: Alternative Capital Requirements for Broker-Dealers That Are Part Of Consolidated Supervised Entities" (Release No. 34-49830).[201] In 2004, the Commission adopted rule amendments under the Securities and Exchange Act of 1934 (which created the CSE program) that allowed firms (the broker-dealers) to apply for an exemption from the net capital rule and instead use the alternative capital method.

TM's Policies and Procedures describing its administration of the CSE program.

Publicly Disclosed Information about the CSE Program.[202] The Commission has posted the following documents on its website about the CSE program:

- Program Overview & Assessment Criteria;
- Program Description; and
- SEC Holding Company Supervision With Respect To Capital Standards And Liquidity Planning.

[201] 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>.

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

Audit Request and Ideas

The Office of Inspector General welcomes your input. If you would like to request an audit in the future or have an audit idea, please contact us at:

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