United States Government Accountability Office

GAO

Report to Congressional Committees

July 2011

PROPRIETARY TRADING

Regulators Will Need More Comprehensive Information to Fully Monitor Compliance with New Restrictions When Implemented

GAO-11-529

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GAO Accountability * Integrity * Reliability

Highlights

Highlights of GAO-11-529, a report to congressional committees

Why GAO Did This Study

In addition to trading on behalf of customers, banks and their affiliates have conducted proprietary trading, using their own funds to profit from short-term price changes in asset markets. To restrain risk-taking and reduce the potential for federal support for banking entities, the Dodd-Frank Wall Street Reform and Consumer Protection Act (the act) prohibits banking entities from engaging in certain proprietary trading. It also restricts investments in hedge funds, which actively trade in securities and other financial contracts, and private equity funds, which use debt financing to invest in companies or other less-liquid assets. Regulators must implement these restrictions by October 2011. As required by Section 989 of the act, GAO reviewed (1) what is known about the risks associated with such activities and the potential effects of the restrictions and (2) how regulators oversee such activities. To conduct this work, GAO reviewed the trading and fund investment activities of the largest U.S. bank holding companies and collected selected data on their profits, losses, and risk measures. GAO also reviewed regulators' examinations and other materials related to the oversight of the largest bank holding companies.

What GAO Recommends

As part of implementing the new restrictions, regulators should collect and review more comprehensive information on the nature and volume of activities potentially covered by the act. Treasury and the financial regulators agreed to consider this as part of their rulemaking.

View GAO-11-529 or key components.
For more information, contact Orice Williams Brown at (202) 512-8678 or williamso@gao.gov.

What GAO Found

Proprietary trading and investments in hedge funds and private equity funds, like other trading and investment activities, provide banking entities with revenue but also create the potential for losses. Banking entities have conducted proprietary trading at stand-alone proprietary-trading desks but also have conducted such trading elsewhere within their firms. GAO determined that collecting information on activities other than at stand-alone proprietary trading desks was not feasible because the firms did not separately maintain records on such activities. As a result, GAO did not analyze data on broader proprietary trading activity but analyzed data on stand-alone proprietary-trading desks at the six largest U.S. bank holding companies from June 2006 through December 2010. Compared to these firms' overall revenues, their stand-alone proprietary trading generally produced small revenues in most quarters and some larger losses during the financial crisis. In 13 quarters during this period, stand-alone proprietary trading produced revenues of $15.6 billion—3.1 percent or less of the firms' combined quarterly revenues from all activities. But in five quarters during the financial crisis, these firms lost a combined $15.8 billion from stand-alone proprietary trading—resulting in an overall loss from such activities over the 4.5 year period of about $221 million. However, one of the six firms was responsible for both the largest quarterly revenue at any single firm of $1.2 billion and two of the largest single-firm quarterly losses of $8.7 billion and $1.9 billion. These firms' hedge and private equity fund investments also experienced small revenues in most quarters but somewhat larger losses during the crisis compared to total firm revenues.

Losses from these firms' other activities, which include lending activities and other activities that could potentially be defined as proprietary trading, affected their overall net incomes more during this period than stand-alone proprietary trading and fund investments. Some market participants and observers were concerned that the act's restrictions could negatively affect U.S. financial institutions by reducing their income diversification and ability to compete with foreign institutions and reducing liquidity in asset markets. However, with little evidence existing on these effects, the likelihood of these potential outcomes was unclear, and others argued that removing the risks of these activities benefits banking entities and the U.S. financial system.

Financial regulators have struggled in the past to effectively oversee bank holding companies. While the act's restrictions reduce the scope of activities regulators must monitor, implementing them poses challenges, including how to best ensure that firms do not take prohibited proprietary positions while conducting their permitted customer-trading activities. Regulators have yet to gather comprehensive information on the extent, revenues, and risk levels associated with activities that will potentially be covered, which would help them assess whether expected changes in firms' revenues and risk levels have occurred. Without such data, regulators will not know the full scope of such activities outside of stand-alone proprietary trading desks and may be less able to ensure that the firms have taken sufficient steps to curtail restricted activity.

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Abbreviations

CDO	collateralized debt obligation
FDIC	Federal Deposit Insurance Corporation
Federal Reserve	Board of Governors of the Federal Reserve System
FSOC	Financial Stability Oversight Council
OCC	Office of the Comptroller of the Currency
SEC	Securities and Exchange Commission
VaR	value-at-risk

GAO

Accountability * Integrity * Reliability

United States Government Accountability Office
Washington, DC 20548

July 13, 2011

The Honorable Tim Johnson
Chairman
The Honorable Richard C. Shelby
Ranking Member
Committee on Banking, Housing, and Urban Affairs
United States Senate

The Honorable Spencer T. Bachus
Chairman
The Honorable Barney Frank
Ranking Member
Committee on Financial Services
House of Representatives

Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the act),[1] also known as the Volcker Rule, prohibits banking entities from engaging in proprietary trading—trading in stocks or other financial instruments using the institution's own funds in order to profit from short-term price changes.[2] It also prohibits these entities from investing in or sponsoring hedge funds, which are commonly understood to be investment vehicles that engage in active trading of securities and other financial contracts, and private equity funds, which are commonly understood to be funds that use leverage or other methods to invest in companies or other less-liquid investments. These restrictions were included in an effort to restrain risk taking at banking entities and to

[1]Pub. L. No 111-203 § 619 (which amended the Bank Holding Company Act of 1956), 124 Stat. 1376, 1620-31 (2010), *adding* 12 U.S.C. § 1851. As discussed later in this report, Section 619 of the act requires the federal banking agencies, the Securities and Exchange Commission, and the Commodity Futures Trading Commission to promulgate rules implementing the prohibition. 12 U.S.C. § 1851(b).

[2]Section 619 specifically defines the terms "proprietary trading," "hedge fund," and "private equity fund." 12 U.S.C. § 1851(h). We provide abbreviated definitions of these terms for the purpose of readability, but readers should refer to the act and our background section for more specific information. Depending on how the regulators implement the act, some activities that match our abbreviated definitions could be permitted, and some that fall outside it may be restricted.

reduce the potential that these entities could require federal support because of their speculative trading activity within the banking entity.[3]

Section 989(b) of the act required us to study the risks and conflicts of interest associated with proprietary trading by and within covered entities. Given that the act also included the restrictions on proprietary trading and hedge fund and private equity fund investments, we conducted a study using available data intended to provide information to the regulators to assist with their rulemakings, which are due in October 2011. After discussions with your staff, we conducted a study of (1) what is known about the risks and conflicts of interest associated with proprietary trading and the potential effects of the restrictions and (2) how regulators have overseen such trading and what challenges they might face in implementing the restrictions going forward.[4] To conduct this work, we collected and analyzed information from public filings and other reports, financial institutions, financial regulatory agencies, researchers, and industry and consumer advocacy groups. After determining that obtaining data on all potential proprietary trading was not feasible because the firms do not maintain separate records on these activities, we collected available data on trading done by these firms' stand-alone proprietary trading units or desks—those organized for the specific purpose of trading a firm's own capital—as well as their hedge fund investments and private equity fund investments, including analyzing data on firm revenues, losses, and certain risk measures. We collected this information from the six largest U.S. bank holding companies as of December 31, 2010, as ranked by total assets reported in filings to the Board of Governors of the

[3]This report describes the provisions of Section 619 generally as restrictions rather than prohibitions—similar to the act itself—because Section 619 sets forth a list of permitted activities to which the prohibitions generally do not apply. See 12 U.S.C. § 1851(a), (d).

[4]Section 989 of the act requires that we conduct a study regarding the risks and conflicts associated with proprietary trading. To carry out this study we considered stand-alone proprietary trading as well as proprietary trading that may occur in relation to market-making or other activities at financial institutions. For the purposes of this report, stand-alone proprietary trading refers to trading at stand-alone proprietary-trading desks, which are those organized by a banking entity with the specific purpose of conducting trading using the firm's own capital. We generally did not include merchant banking activities or other long-term principal investments, although we discuss debate about whether such activities should be restricted. Section 620 of the act requires the appropriate federal banking agencies to jointly study and prepare a report on the activities that a banking entity may engage in under federal and state law and the risks presented by or associated with such activities.

Federal Reserve System (Federal Reserve).[5] To provide some assurance of the accuracy of the data reported to us by the bank holding companies, we obtained descriptions of how they ensure the accuracy of the systems used to produce these data and corroborated selected parts with regulators familiar with these firms' trading and fund investing activities. We deemed the data to be sufficiently reliable for our purposes. We also reviewed bank and broker-dealer examinations and other regulatory materials that provided information on how regulators oversee the largest bank holding companies. Finally, we interviewed bank holding companies, regulators, and firms impacted by prohibitions placed on proprietary trading and hedge fund and private equity fund investment activities. Appendix I contains a more detailed description of our scope and methodology.

We conducted this performance audit from August 2010 to July 2011 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.

Background

Section 619 restrictions on engaging in proprietary trading or investing in or sponsoring hedge funds or private equity funds apply to banking entities, which the section defines to include any insured depository institution, company that controls an insured depository institution, company treated as a bank holding company for purposes of Section 8 of the International Banking Act of 1978, and affiliate or subsidiary of such entity.[6] The section defines proprietary trading as engaging as a principal for the trading account of the banking entity, with the term trading account

[5]The bank holding companies were Bank of America Corporation; Citigroup Inc.; The Goldman Sachs Group, Inc.; JPMorgan Chase & Co.; Morgan Stanley; and Wells Fargo & Company. The Goldman Sachs Group, Inc., and Morgan Stanley became holding companies in September 2008.

[6]12 U.S.C. § 1851(h)(1). The term "insured depository institution" excludes institutions that function solely in a trust or fiduciary capacity and satisfy other conditions. Under section 8 of the International Banking Act of 1978, any foreign bank with a branch, agency, or commercial lending company subsidiary in the United States, and any company that indirectly controls such foreign bank, is treated as a bank holding company. 12 U.S.C. § 3105.

separately defined as an account used principally for the purpose of selling in the near term (or otherwise with the intent to resell in order to profit from short-term price movements).[7] The act's proprietary trading prohibition provides a number of exemptions for permitted activities, including activities related to market making and underwriting, risk-mitigating hedging, transactions on behalf of customers, and transactions in government securities, among others. The act limits the permissibility of some of these activities to specific purposes and establishes overall criteria prohibiting such activities if they would result in a material conflict of interest, would expose the entity to high-risk assets or trading strategies, or would threaten the institution's safety and soundness or U.S. financial stability. However, the act does not define the permissible activities themselves. For example, market making-related activity and underwriting are permitted to the extent they are "designed not to exceed the reasonably expected near term demands of clients, customers, or counterparties," but the provision does not define "market making" or "underwriting." Similarly, permissible risk-mitigating hedging activities must be designed to reduce "specific risks" related to individual or aggregated positions, contracts or other holdings. The provision does not define what constitutes the practice of risk-mitigating hedging. As a result, regulations that further define what are and are not permitted activities could significantly impact the scope of the new restrictions. Similarly, the act's restrictions on hedge fund and private equity fund investments allow for a *de minimis* amount of investment to facilitate customer focused advisory services. This amount cannot exceed 3 percent of the total ownership interests of the fund 1 year after it is established and must be immaterial to the banking entity as defined by the regulators, and no banking entity's aggregated investments in all such funds may exceed 3 percent of its Tier 1 capital.[8]

Section 619 of the act generally requires the appropriate federal banking agencies, the Commodity Futures Trading Commission, and the Securities and Exchange Commission (SEC) to promulgate regulations governing proprietary trading by the entities they regulate.[9] The Federal

[7] 12 U.S.C. § 1851(h)(4), (6). The definition of a trading account also includes "any such other accounts" as determined by the appropriate federal banking agencies, the Securities and Exchange Commission, and the Commodity Futures Trading Commission, and set forth in a rule.

[8] 12 U.S.C. § 1851(d)(1).

[9] 12 U.S.C. § 1851(b)(2).

Reserve will issue regulations for any company that controls an insured depository institution or that is treated as a bank holding company for purposes of Section 8 of the International Banking Act of 1978, any supervised nonbank financial company, and any subsidiary of these companies if another regulator is not the primary financial regulatory agency. The appropriate federal banking agencies are to issue regulations jointly with respect to insured depository institutions, including national banks and federal savings associations regulated by the Office of the Comptroller of the Currency (OCC), state-chartered banks that are not members of the Federal Reserve System and state-chartered thrifts regulated by the Federal Deposit Insurance Corporation (FDIC), and FDIC-insured state banks that are members of the Federal Reserve.[10] The Commodity Futures Trading Commission is to issue regulations with respect to entities it regulates, including futures commission merchants, which are firms that buy and sell futures contracts as agents for customers. Additionally, SEC is to issue rules for the entities it regulates, including registered broker-dealers and investment advisers.[11]

To implement the provisions on proprietary trading and hedge fund and private equity fund investments, the act required the Financial Stability Oversight Council (FSOC) to complete a study and make recommendations on implementing the provisions by January, 2011.[12] The study included specific recommendations for regulators to monitor and supervise institutions for compliance.[13] Within 9 months of completing this study—by October 2011—the regulators are to adopt implementing regulations. Also as required by the act, the Federal Reserve issued a

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[10]See Pub. L. No. 111-203 §§ 311, 312.

[11]The Office of Thrift Supervision will continue to be the appropriate federal banking agency for federal savings associations and FDIC-insured state-chartered savings associations until July 21, 2011.

[12]This council was created by the act to identify and coordinate responses to emerging risks to the financial system. It is chaired by the Secretary of the Treasury and comprised of voting representatives from the Federal Reserve, OCC, SEC, FDIC, the Commodity Futures Trading Commission, the Consumer Financial Protection Bureau, the Federal Housing Finance Agency, the National Credit Union Administration, and an independent member with insurance expertise. It also includes nonvoting representatives of the Office of Financial Research; the Federal Insurance Office; and state banking, securities, and insurance regulators.

[13]Financial Stability Oversight Council, *Study & Recommendations on Prohibitions on Proprietary Trading & Certain Relationships with Hedge Funds and Private Equity Funds* (Washington, D.C., Jan. 18, 2011).

final rule on February 9, 2011, regarding the timelines for banking entities to bring their proprietary trading and hedge fund and private equity fund investments into conformance with the restrictions, including the process for the granting of extensions.[14] By October 2011, the Federal Reserve, OCC, and FDIC must jointly issue rules to fully implement the proprietary trading and hedge fund and private equity fund restrictions, with SEC and the Commodity Futures Trading Commission required to issue similar rules that cover the entities for which they have primary oversight responsibilities.[15] In developing and issuing these regulations, the agencies are to consult and coordinate with each other. The chairperson of the FSOC—the Secretary of the Treasury—is responsible for coordinating the regulations required by the act.

Although Stand-Alone Proprietary Trading and Fund Investment Revenues Were Generally Small Relative to Total Revenues, Such Activities Caused Larger Losses during the Financial Crisis

Proprietary trading and hedge fund and private equity fund investments, like other banking and trading activities, provide revenue and create the potential for losses at banking entities. Financial institutions have conducted proprietary trading at stand-alone proprietary-trading desks and may have also conducted proprietary trading elsewhere in the firm. We analyzed data on activities of the stand-alone proprietary-trading desks of the six largest U.S. bank holding companies from June 2006 through December 2010, but determined through our work that collecting data on other proprietary trading was not feasible because the firms did not separately maintain records on such activities and because of the uncertainty over the types of activities that will be considered proprietary trading until the completion of the required regulatory rulemaking. We also collected data on hedge and private equity fund investments that the bank holding companies believed to be restricted by the act. The revenues from these firms' stand-alone proprietary trading were generally small in most quarters relative to revenues from all trading and other activities. These activities also resulted in larger losses as a percent of total losses during the financial crisis. Revenues and losses from these firms' hedge fund and private equity fund investments followed a similar trend. Although stand-alone proprietary trading and hedge fund and private equity fund investments contributed to losses during the crisis,

[14] 76 *Fed. Reg.* 8265 (Feb. 14, 2011); see 12 U.S.C. § 1851(c)(6). The section provides a 2-year conformance period, subject to extension, during which a banking entity can wind down, sell, or otherwise conform its activities, investments, and relationships to the proprietary trading restrictions.

[15] 12 U.S.C. § 1851(b)(2).

such activities affected these firms' overall net incomes less during that period than did other activities, such as lending and securitization, including positions in mortgage-backed securities or more complex financial instruments that some view as proprietary trading.[16] Some market participants and observers were concerned that the act's restrictions could negatively affect U.S. financial institutions and the economy by limiting banks' ability to diversify their income stream and compete with foreign institutions, and reducing liquidity in asset markets. However, the likelihood of such potential outcomes was unclear.

Proprietary Trading and Hedge Fund and Private Equity Fund Investments at Large U.S. Bank Holding Companies Generate Revenues but Also Create Risks and Conflicts that Must be Managed

Proprietary trading can take a number of forms. Proprietary traders often take positions in securities or other products that they think will rise or fall in value over a short period of time in order to profit from a trader's view of the direction of the market. Proprietary traders also use more complex strategies such as relative value, in which a trader identifies differences in prices between two related securities or other financial products and takes positions in those products to make a profit. For example, a proprietary trader might identify a discrepancy between the pricing of a stock index and the pricing of its underlying stocks, and then take a long position in one and a short position in the other to profit when the discrepancy corrects itself. Banking entities can conduct proprietary trading in desks organized with the specific purpose of trading a firm's own capital (stand-alone proprietary-trading desks), but some have also conducted what could be considered proprietary trading in conjunction with their market making activities by accumulating positions in a particular asset at levels that exceed the amount of the firm's typical or necessary inventory in that asset used to facilitate customer trades.[17] A trader at a market-making desk may anticipate that the price of a particular stock will increase over the short term and purchase and hold more shares of that stock in order to make a larger profit than he or she would otherwise from buying and selling the product as a market maker. For example, one regulator described the activities of one of the trading desks at one of the bank holding companies we reviewed as making markets for clients but that the firm also allowed that desk's traders to

[16]These securities entitle their holders to a portion of the cash flows from a group of mortgages.

[17]Market making is known generally as quoting both a buy and a sell price in a financial instrument hoping to make a profit on a bid-offer spread, although no single definition of market-making exists in law or regulation.

hold inventory positions exceeding the amount necessary to facilitate client trades when the traders had a particular view on the direction of the market. Also, as discussed later in the report, debate exists about the full scope of activities that should be considered proprietary trading, and some define the term to include not only trading activities but other activities conducted by a firm as a principal, such as long-term investments.

Trading activities, including proprietary trading, like other banking activities, can create revenues for bank holding companies. Bank regulators, financial institution representatives, and others noted that such activities provide another source of revenues for banks that can diversify their income from lending and other activities. (We discuss the recent levels of revenue from trading activities—including stand-alone proprietary trading—in the next section of this report.)

However, trading also poses several types of risks to bank holding companies:

- *Market risk:* the potential for financial losses due to an increase or decrease in the value or price of an asset or liability resulting from movements in prices, such as interest rates, commodity prices, stock prices, or the relative value of currencies (foreign exchange).

- *Liquidity risk:* the potential for losses or write-downs to occur if an institution has to exit a position but either cannot do so or can do so only at a significantly reduced price because of an illiquid market due to insufficient buyers or sellers.[18]

- *Counterparty credit risk:* the current and prospective risk to earnings or capital arising from an obligor's failure to meet the term of any contract with the bank or to otherwise perform as agreed.

- *Reputation risk:* the potential for financial losses that could result from negative publicity regarding an institution's business practices that results in a decline in customers or revenues or in costly litigation.

[18]Another form of liquidity risk that financial institutions face arises if they cannot obtain adequate short-term funding to finance their operations.

- *Operational risk:* the potential for loss resulting from inadequate or failed internal processes, people, and systems or from certain external events.

These risks will vary depending on the type of product traded. For example, proprietary trading in stocks, which are generally traded in deep and liquid markets, faces lower liquidity risks than trading in less liquid credit and other products, such as some of today's mortgage-backed securities and collateralized debt obligations (CDO),[19] which would be harder to liquidate quickly in response to a capital shortage at a firm.

Hedge fund and private equity fund investments can also pose risks to bank holding companies. Hedge funds, like proprietary trading operations, are subject to market and other types of risk that can result in significant financial losses, and private equity funds are additionally affected by broader changes in the economy that affect the companies in which they have invested. Some failures at other large financial institutions other than bank holding companies illustrate the potential for financial losses at hedge funds. For example, in 1998 following the near collapse of Long-Term Capital Management, a large hedge fund, the Federal Reserve facilitated a private sector recapitalization. It took this action because of concerns that a rapid liquidation of the firm's trading positions and related positions of other market participants in already highly volatile markets might cause extreme price movements and might cause some markets to temporarily cease functioning. In 2007, two hedge funds required significant cash infusions from their sponsor, Bear Stearns Asset Management, which was a subsidiary of a broker-dealer holding company, when they experienced losses from holdings of CDOs that contained subprime mortgages.

Some policymakers and at least one researcher have raised concerns that another risk associated with proprietary trading and hedge fund and private equity fund investments is systemic risk, which is the possibility that an event could broadly affect the financial system rather than just one or a few institutions. The extent to which proprietary trading and hedge fund and private equity fund investments pose systemic risks, if at all, is difficult to measure and could depend on the size of the activity, the

[19]CDOs are securities backed by a pool of bonds, loans, or other debt obligations.

extent to which other firms are conducting similar activities, and the level of distress in or concerns already present in the markets.

Representatives of the six largest U.S. bank holding companies described a variety of methods they use to oversee the risks associated with proprietary and other trading activities and hedge fund and private equity fund investments. These financial institutions described having risk-management infrastructures that include regular meetings of firm executive staff who set policies and procedures regarding firmwide, business-line, and desk-level trading and risk limits. Among the most prominent ways that firms measure the risks and potential losses associated with their trading activities is by calculating their value-at-risk (VaR), which is an estimate of the likely loss that a portfolio of financial instruments will incur as the result of any changes in the underlying risk factors that could affect the value of the assets in that portfolio, including changes in stock prices, interest rates, or other factors. VaR estimates are typically calculated using historical market prices to represent the likely maximum loss that a portfolio will incur with either a 95 or 99 percent statistical probability, and therefore VaR limits are designed with the expectation that daily losses will exceed the limit as much as 5 percent of the time. VaR calculations, among other inputs, are also used by firms to determine how much regulatory capital they must hold, so that as the amount of money the firm could lose under its VaR calculation increases, so does the amount of regulatory capital required to be held as a buffer against those potential losses. Each bank holding company calculates VaR limits for specific trading desks or business lines and also sets a firmwide VaR limit. This amount is less than the sum of the individual VaRs because of diversification effects across portfolios—that is, the results of different or opposite movements among assets held by groups within a firm whose gains and losses would offset each other in whole or in part. Trading desks and the firm as a whole are expected to hold positions whose VaRs are below the established limits. Financial institutions noted that they do not rely exclusively on VaR, and described other key aspects of their risk-management activities, including stress testing and risk constraints and limits at particular trading desks or business lines.

Financial institutions that conduct both proprietary trading and client-focused activities, such as market making, face a number of what financial regulators and industry participants consider to be potential conflicts of interest that could lead financial institutions to put their own interests ahead of their responsibilities to their clients. However, industry participants noted that these potential conflicts of interest are not unique to proprietary trading activities and can occur in other activities conducted by bank holding companies. In many cases, the activities arising from such conflicts are illegal and violate securities laws, depending on the facts and circumstances surrounding the activity. For instance, financial institutions that conduct proprietary trading could potentially use their clients' order information for their own benefit in a way that disadvantages the client. One example of such prohibited activity is front running, which can occur when a firm receives a buy or sell order from a client and then uses information about that order to execute a trade from its proprietary-trading desk in advance of its customer's order.[20] A proprietary trader, having received information that a client is about to make a large purchase of stocks, could "front run" that order by buying shares for the firm in advance, driving the price of the stock up. Such a move would harm the client by raising the stock's purchase price. Another type of illegal activity resulting from conflicts of interest could potentially occur when traders who interact with clients share information with proprietary traders or with other clients about the trading patterns or strategies being used by other clients. In a recent administrative proceeding, SEC found that proprietary traders for a broker-dealer were misusing information about trades done for clients between February 2003 and February 2005.[21] The firm neither admitted to nor denied these practices and agreed to pay a penalty of $10 million and consented to an SEC cease and desist order. As another example, proprietary traders could take advantage of material nonpublic information their firms obtain in other business lines.[22]

[20]Front running is prohibited by the Financial Industry Regulatory Authority (FINRA), which is the self-regulatory organization for broker-dealers. See FINRA Rule 2010, FINRA Regulation IM 2110-3.

[21]SEC File No. 3-14204 (Jan. 25, 2011). According to the order, although the proprietary traders at this firm did not have direct access to the computer system the market makers used to execute customer orders, by virtue of being located on the broker-dealer's equity trading floor they could see customer order information on the market makers' computer screens and hear market makers discuss customer orders. Moreover, according to the order, the broker-dealer encouraged its market makers to generate and share "trading ideas" with the proprietary traders, promising higher bonuses to market makers whose ideas were profitable.

[22]See, e.g., section 15(g) of the Securities Exchange Act of 1934, 15 U.S.C. § 78*o*(g), which requires registered brokers and dealers to maintain and enforce written policies and procedures reasonably designed to prevent the misuse of material, nonpublic information.

Financial institutions that engage in hedge fund and private equity fund investments and client-focused activities also face a number of potential conflicts of interest, which could result in financial institutions putting their own interests and revenue ahead of their responsibilities to their clients. For example, bank holding companies' asset management divisions could potentially have incentives to inappropriately recommend investment in certain funds they sponsor or with which they have a preexisting business relationship. Another potential conflict of interest can involve inequitable trade allocations. That is, a firm might execute trades for a particular asset at different prices but allocate the most profitable trades to its own holdings and the less profitable trades to its client holdings. Such activities, according to SEC, could constitute violations of federal securities law, depending on the facts and circumstances.

The bank holding companies we interviewed described a number of procedures they relied on to try to identify and mitigate conflicts of interest related to proprietary trading.[23] Some of the institutions described committees at their firm—made up of senior level business-line, risk management, and compliance executives—that meet to address potential conflicts of interest. These committees create and implement policies and procedures that are designed to identify and mitigate potential conflicts of interest, and management elevates any potential conflicts of interest to this committee. These institutions have also in some cases physically separated proprietary traders from traders engaged in market making in an attempt to prevent market-making information from leaking to proprietary traders. For example, some placed proprietary traders on different floors of their facilities, including sometimes using separate elevator systems, keycard access to doors, and different telephone and computer hardware. According to SEC staff, however, some traders that have conducted activities that may fall within the definition of proprietary trading have done so on the same trading floor as market-making desks. Proprietary trading teams also, in some cases, have different information technology systems, such as software and e-mail systems, that prevent them from communicating with other areas of the firm. According to firms we visited, their stand-alone proprietary-trading desks would in many cases execute their trades through other firms rather than using their own firms' traders, as a further means to separate their activities. Some

[23]We did not examine the adequacy of bank holding company controls in place to prevent and mitigate conflicts of interest related to proprietary trading and hedge fund and private equity investments as part of the scope of this report.

financial institutions we interviewed also described certain procedures, such as triggers, that are in place to monitor trading activities to prevent stand-alone proprietary traders and others from executing trades with certain companies that are doing business with other parts of the firm. Finally, institutions also described having policies to prohibit their traders from trading in their own personal accounts using information acquired from their work at the firm.

Although Stand-Alone Proprietary Trading Generally Produced Small Revenues as a Percentage of Total Revenues, It Experienced Larger Losses during the Financial Crisis

According to regulators, researchers, and our analysis, most proprietary trading among banking entities has been conducted by the largest bank holding companies in the United States.[24] According to our analysis of financial data that bank holding companies report to the Federal Reserve, as of December 31, 2010, the largest six bank holding companies by assets accounted for 88 percent of total trading revenues reported by all bank holding companies.[25] Therefore, we focused our analysis on the 6 largest bank holding companies by assets as of December 31, 2010. To provide information about the extent to which proprietary trading posed risks to these firms, we attempted to gather information on stand-alone proprietary trading as well as other proprietary trading that may have been occurring within other trading activities of the firms. While we gathered information on stand-alone proprietary trading, we determined that collecting information on other proprietary trading was not feasible because the firms did not separately maintain records on such activities and because of the uncertainty over what activities will be considered proprietary trading until the completion of the required regulatory

[24]The scope of this report is limited to trading at banking entities, and all of the data analysis in the report specifically focuses on the six largest bank holding companies as of December 31, 2010. Outside of banking entities as defined in the act, other financial institutions also conduct proprietary trading and make investments in hedge funds and private equity funds, including other hedge funds, broker-dealers, pension funds, insurance companies, and others. Under Section 619, a nonbank financial company supervised by the Federal Reserve that engages in proprietary trading or invests in hedge funds and private equity funds will be subject to additional capital requirements and quantitative limits that the Board establishes by rule. 12 U.S.C. § 1851(a)(2).

[25]This analysis is based on trading revenue data in item 5c on Form Y9-C Schedule HI for each firm, as well as OCC's Quarterly Report on Bank Trading and Derivatives Activities for the Fourth Quarter of 2010, which compiled this data for all bank holding companies. Because of how trading revenue and other items are reported on Form Y9-C, the data may not match the trading revenue data discussed below that was self-reported by the six bank holding companies. For example, trading revenue on the Form Y9-C does not include interest income on trading assets, which is reported separately.

rulemaking.[26] We calculated firms' combined revenues or losses from stand-alone proprietary trading for each of the 18 quarters between June 2006 to December 2010, and compared the results to trading revenue—which includes revenue from all trading activities including stand-alone proprietary trading—and total bank holding company revenue.[27] The data on stand-alone proprietary trading represented 26 proprietary-trading desks across the six firms over the time period we reviewed. The number of stand-alone proprietary trading desks reported by a single bank holding company ranged from one to eight. These stand-alone proprietary-trading desks included some that traded primarily in one type of financial product, such as commodities or equities, to desks that traded a wide variety of products. The desks also relied on varying strategies for generating returns, including quantitative-based algorithmic trading as well as more traditional trading.

As shown in figure 1, stand-alone proprietary trading activities at the six largest bank holding companies produced combined revenues in 13 out of 18 quarters since 2006 and losses in the remaining 5 quarters.[28] While the combined revenue over the period totaled $15.6 billion, the combined losses totaled $15.8 billion. As a result, stand-alone proprietary trading by the six firms over the time period we reviewed resulted in a combined loss of $221 million and a median quarterly revenue for each firm of about $72 million. All of the quarters in which the six firms' combined stand-alone proprietary activities produced losses occurred from the third quarter of 2007 through the fourth quarter of 2008—the time period leading up to and including the worst financial crisis since the Great Depression. Four of the firms made money, and two lost money, from stand-alone

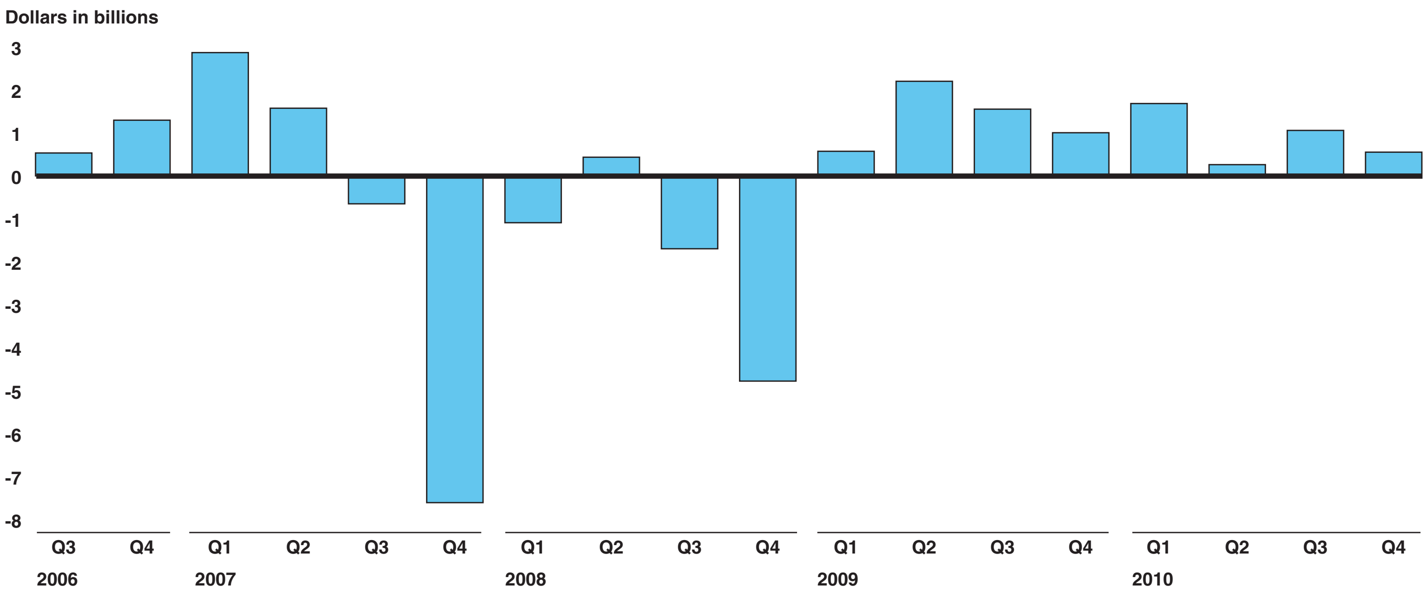
[26]Some of the trading that took place within the firms' self-reported stand-alone proprietary-trading desks might not be subject to prohibition under the proprietary trading restrictions that regulators will finalize as part of their rulemaking, such as trading in government securities.

[27]As noted above, for the purposes of this report, stand-alone proprietary-trading desks are those desks that are organized by a banking entity with the specific purpose of trading a firm's own capital. In a limited number of instances, bank holding companies identified stand-alone proprietary-trading desk activity for which they were unable to provide revenue data. For example, one firm separately tracked revenue at one of their stand-alone proprietary-trading desks for some but not all of the quarters. In these instances, we verified that the missing data would not significantly affect our findings.

[28]Trading revenues and losses reflect the total amount of money made or lost from trading activities, and combined revenues or losses reflect the sum of such figures across the six firms.

proprietary trading over the 4.5 year time period as reflected in revenues and losses.

Figure 1: Combined Revenues and Losses from Stand-Alone Proprietary Trading at the Six Largest U.S. Bank Holding Companies, Third Quarter 2006 through Fourth Quarter 2010



Sources: GAO analysis of data reported by six largest U.S. bank holding companies.

Notes: Data shown here on stand-alone proprietary trading—which is conducted at desks that are organized by a banking entity with the specific purpose of trading a firm's own capital—does not include other proprietary trading activities that may have taken place at the institutions, depending on how the term is defined as part of the rulemaking to implement Section 619 of the act. One of the six bank holding companies was responsible for both the largest quarterly revenue at any single firm from stand-alone proprietary trading since 2006, which was $1.2 billion, and the two largest single-firm quarterly losses of $8.7 billion and $1.9 billion.

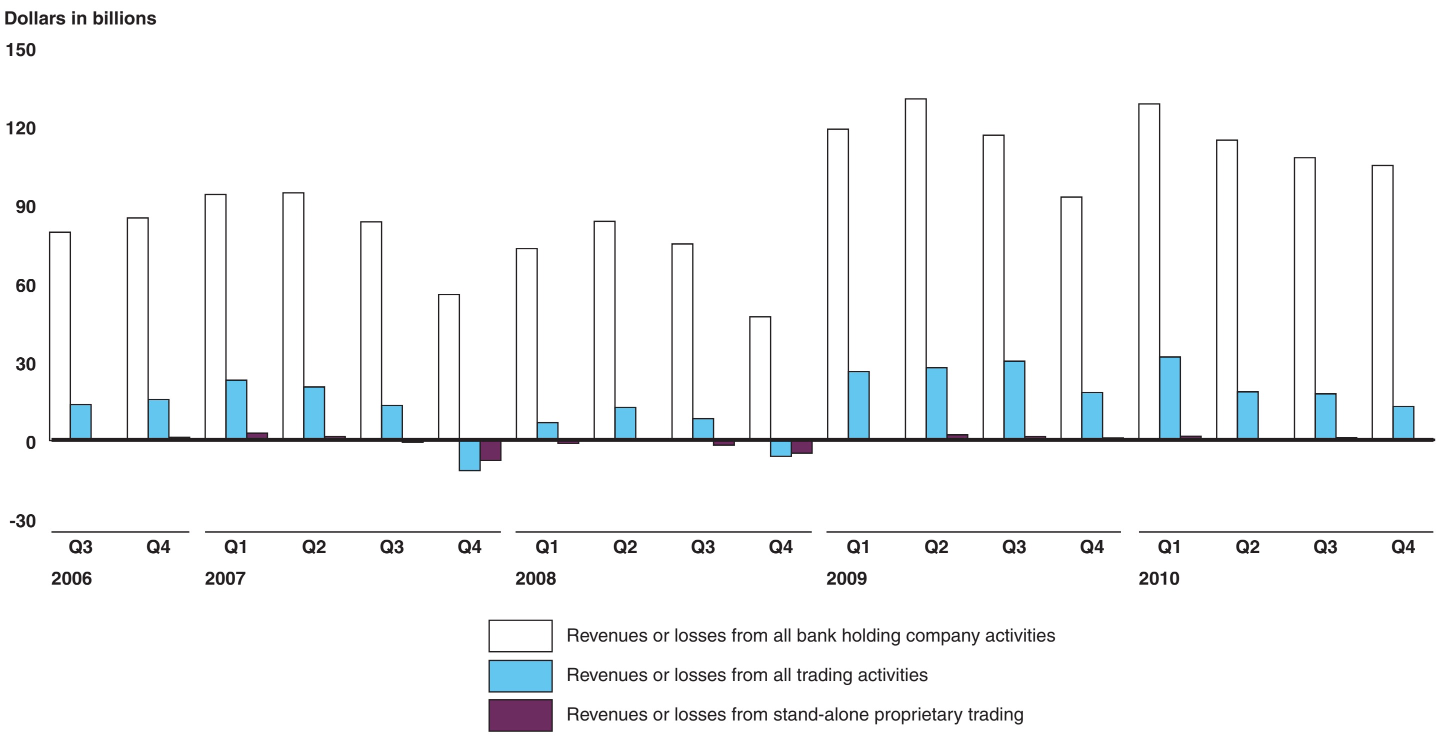
One of the six bank holding companies was responsible for both the largest quarterly revenue at any single firm from stand-alone proprietary trading since 2006, which was $1.2 billion, and the two largest single-firm quarterly losses of $8.7 billion and $1.9 billion. Stand-alone proprietary trading at the other five bank holding companies resulted in total combined revenues over the time period of $9.4 billion and median quarterly revenue for each firm of about $67 million.[29] At the five bank

[29]While our report is primarily based on the analysis of the data of all six bank holding companies and our statistics and figures largely present combined results, we do present some data on single firms or ranges or values across the six firms as appropriate.

holding companies, the largest single-firm quarterly revenue throughout the time period was $957 million, and the largest loss was $1 billion.

The combined revenues from stand-alone proprietary trading in the 13 revenue-generating quarters since 2006 represented relatively small amounts compared with revenues from all trading activities—which included stand-alone proprietary trading revenue—and from all bank holding company activities (see fig. 2). In the 13 quarters since 2006 in which both stand-alone proprietary trading and all trading and other revenues were positive, the combined revenues from stand-alone proprietary trading represented between a low of about 1.4 percent and a high of 12.4 percent of combined quarterly revenues for all trading and between about 0.2 to 3.1 percent of combined quarterly revenues for all activities at the bank holding companies. In the five quarters in which the firms experienced combined losses from stand-alone proprietary trading, they experienced combined losses for all their trading activities in two of those quarters. In those two quarters, the stand-alone proprietary trading losses were about 66 percent and 80 percent of total trading losses.

Figure 2: Revenues or Losses from Stand-Alone Proprietary Trading, All Trading, and All Firmwide Activities at the Six Largest U.S. Bank Holding Companies, Third Quarter 2006 to Fourth Quarter 2010

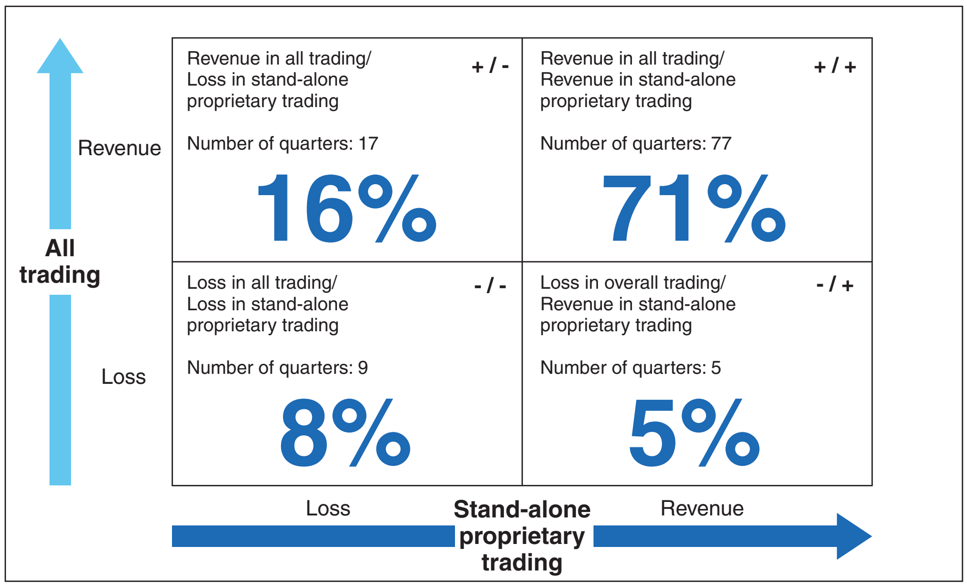


Sources: GAO analysis of data reported by six largest U.S. bank holding companies and publicly reported revenue data.

Note: Data shown here on stand-alone proprietary trading—which is conducted at desks that are organized by a banking entity with the specific purpose of trading a firm's own capital—does not include other proprietary trading that may have taken place at the institutions, depending on how the term is defined as part of the rulemaking to implement Section 619 of the act.

In addition to analyzing combined revenues and losses, we analyzed all 108 individual firm-quarters of data that the bank holding companies reported and found that stand-alone proprietary trading generally did not significantly increase quarterly trading revenues during positive quarters. However, in quarters when both stand-alone proprietary trading and total trading resulted in losses, stand-alone proprietary trading comprised a substantial portion of total trading losses. As shown in figure 3, in 77 out of 108 firm-quarters (or 71 percent), revenues were positive for both stand-alone proprietary trading and total trading (which included stand-alone proprietary trading.) In five quarters (5 percent), stand-alone proprietary trading helped offset losses in other trading areas or reduced overall trading losses. For these quarters, stand-alone proprietary trading resulted in total revenue of $666 million despite total trading losses of more than $14 billion. In 17 quarters (16 percent), stand-alone proprietary trading resulted in losses despite total trading revenues. For these quarters, stand-alone proprietary trading losses of about $4 billion reduced total trading revenues to about $56 billion. Finally, in nine quarters (8 percent), both stand-alone proprietary and total trading experienced losses, with stand-alone proprietary trading losses comprising 86 percent of total trading losses.

Figure 3: Percentage of Firm-Quarters in Which Stand-Alone Proprietary Trading and Total Trading Resulted in Revenues or Losses at the Six Largest U.S. Bank Holding Companies, Third Quarter 2006 to Fourth Quarter 2010



Sources: GAO analysis of data reported by six largest U.S. bank holding companies.

Note: Data shown here on stand-alone proprietary trading—which is conducted at desks that are organized by a banking entity with the specific purpose of trading a firm's own capital—does not include other proprietary trading that may have taken place at the institutions, depending on how the term is defined as part of the rulemaking to implement Section 619 of the act.

Our analysis of revenue, loss, and VaR data from 2006 through 2010 at the six largest bank holding companies indicated that during this period stand-alone proprietary trading required these firms to take greater risks than all trading activities on average to generate the same amount of revenue and that these firms' VaR risk models were less capable of predicting the actual risks associated with stand-alone proprietary trading. We calculated, for a standardized amount of risk taken, how much revenue bank holding companies produced from stand-alone proprietary trading as compared to all trading activities, which included stand-alone proprietary trading.[30] Stand-alone proprietary trading produced average quarterly revenues of $4.8 million for every $1 million of VaR, while all trading, including stand-alone proprietary trading, produced average quarterly revenues of $21.9 million for every $1 million of VaR. These calculations for specific firm quarters ranged from an average quarterly revenue-per-VaR of $11.5 million to an average quarterly loss-per-VaR of $5.4 million for stand-alone proprietary trading and from an average quarterly revenue-per-VaR of $40.5 million to an average quarterly loss-per-VaR of $7 million for all trading activities. Figure 4 shows these data, which could be considered "risk-adjusted revenues or losses" for both stand-alone proprietary trading and all trading during the time period. In addition, each of these bank holding companies reported to us the number of times each quarter that their actual daily losses exceeded those predicted by these firms' VaR models—which are known as VaR breaks.[31] For all trading, the actual daily losses incurred by these six firms over the time period exceeded their VaR estimate 161 times, for an average of 1.5 VaR breaks per quarter per firm. However, for their stand-alone proprietary trading, the actual daily losses exceeded their VaR estimate 302 times across the same period, or an average of 3.2 breaks

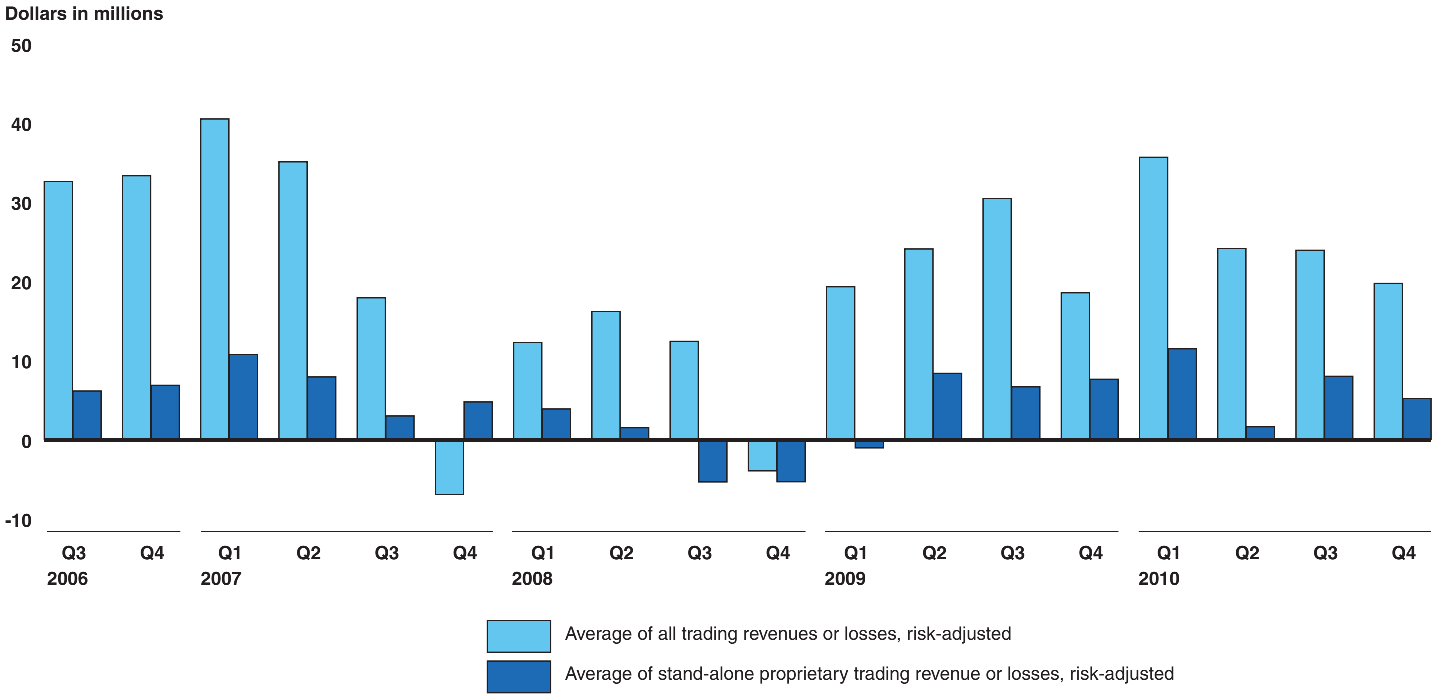
[30]We calculated revenue-to-VaR figures by dividing the total revenue at a firm or one of its trading desks by the corresponding average daily VaR for that firm or trading desk for a particular quarter, and then taking the average of these figures across multiple stand-alone proprietary-trading desks, quarters, and firms, as appropriate. Not all of the firms were able to provide complete VaR data, but we determined that no single firm was responsible for a significant portion of the missing data, and that corresponding revenue and loss data were relatively small. Specifically, three of the six firms could not provide complete information on VaR for all of their stand-alone proprietary-trading desks, representing 12 percent of the cases in which firms provided individual firm-quarter-desk revenue or loss data. This 12 percent of excluded VaR data corresponded to $867 million dollars of revenue and $981 million in losses.

[31]Because the six firms do not all use the same 95 or 99 percent confidence interval, the data do not address the implications of the frequency of VaR breaks at each individual firm. Not all of the firms were able to provide complete VaR break data, but we determined that no single firm was responsible for a significant portion of the missing data, and that corresponding revenue and loss data were relatively small. Specifically, three of the six firms could not provide complete VaR break data for all of their stand-alone proprietary-trading desks, representing 21 percent of the cases in which firms provided individual firm-quarter-desk revenue or loss data. This 21 percent of excluded VaR data corresponded to $2.1 billion in revenue and $1.4 billion in losses.

per quarter per firm.[32] The largest number of VaR breaks at any one bank holding company's individual stand-alone proprietary-trading desk in any one quarter was 42, out of 63 trading days in the quarter. Representatives from some of these bank holding companies told us that the larger number of breaks from stand-alone proprietary trading likely stemmed from the prices of the assets being traded becoming more volatile than their models had predicted.

[32]Our calculation of a single firm's VaR breaks for proprietary trading during one quarter—used to compare it to that for all trading—was an estimate based on taking the average number of breaks across its proprietary-trading desks for that quarter.

Figure 4: Revenue per VaR, or "Risk-Adjusted Revenues," for Stand-Alone Proprietary Trading and All Trading at the Six Largest U.S. Bank Holding Companies, Third Quarter 2006 to Fourth Quarter 2010



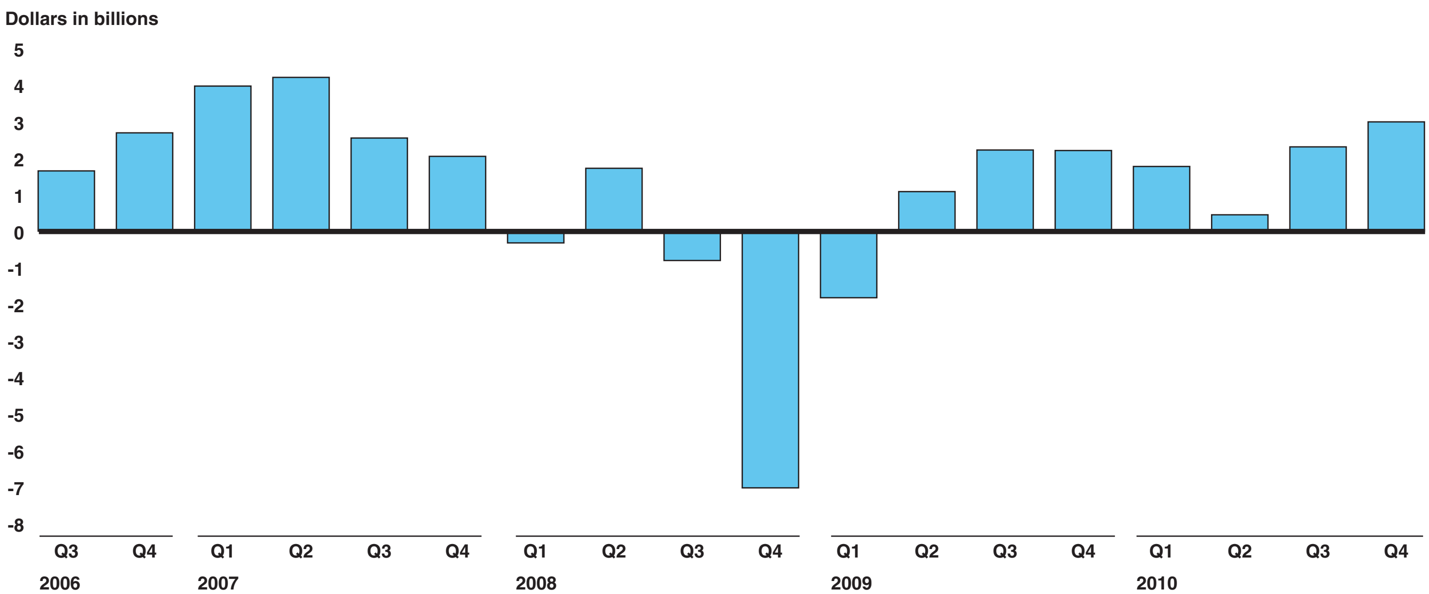
Sources: GAO analysis of data reported by six largest U.S. bank holding companies.

Notes: Revenue for all trading includes revenue from stand-alone proprietary trading. As noted earlier, VaR for all trading is usually less than the sum of the individual VaRs (such as for stand-alone proprietary trading) because of diversification effects across portfolios—that is, the results of different or opposite movements among assets that result from one group holding assets that tend to move in the opposite direction of those held by other groups within a firm. This may account for some of the difference between risk-adjusted revenues for all trading and stand-alone proprietary trading. Data shown here on stand-alone proprietary trading—which is conducted at desks that are organized by a banking entity with the specific purpose of trading a firm's own capital—does not include other proprietary trading that may have taken place at the institutions, depending on how the term is defined as part of the rulemaking to implement Section 619 of the act.

Although Investments in Hedge and Private Equity Funds Generally Produced Small Revenues as a Percentage of Total Revenues, They Experienced Some Larger Losses during the Financial Crisis

Our analysis of the data reported to us by the six largest U.S. bank holding companies showed that their hedge fund and private equity fund investments also experienced smaller revenues as a percentage of total revenues but with some larger losses compared to those revenues during the period we reviewed. As shown in figure 5, hedge fund and private equity fund investments at these six firms produced combined revenues in 14 out of 18 quarters totaling almost $32 billion.[33] In three quarters, combined losses from these investments were just more than $8 billion, and in the one remaining quarter, the bank holding companies experienced combined revenues in private equity fund investments and a loss in hedge fund investments. As a result, the bank holding companies had combined revenues of about $22 billion from hedge fund and private equity fund investments during this 4.5-year period.

Figure 5: Combined Revenues or Losses from Investments in Hedge Funds and Private Equity Funds at the Six Largest U.S. Bank Holding Companies, Third Quarter 2006 through Fourth Quarter 2010



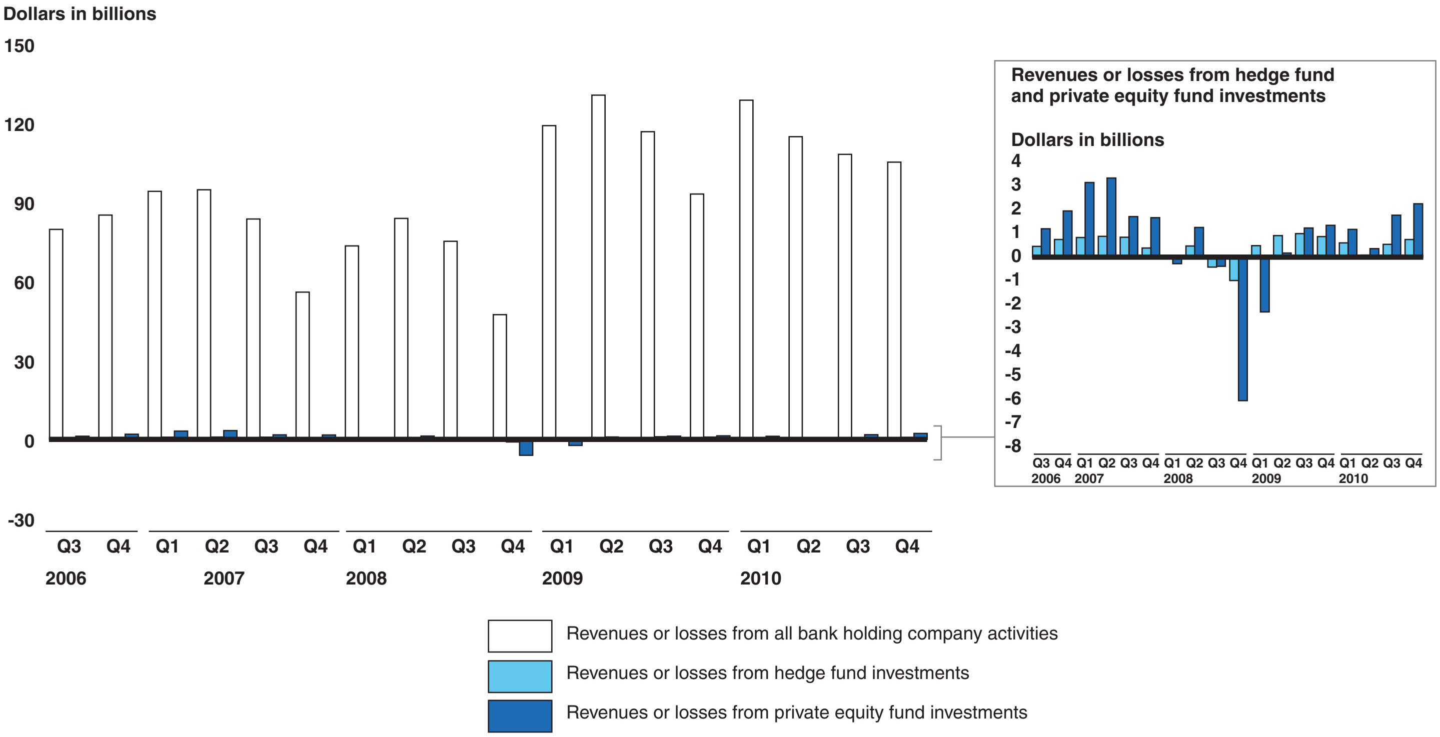
Sources: GAO analysis of data reported by six largest U.S. bank holding companies.

[33]Hedge fund and private equity revenue data included carried interest, which is the share of fund profits that is paid to the managers of the fund, and other management fee revenue. One of the six bank holding companies was unable to provide complete data on its hedge fund revenues. Based on our analysis of data the firm provided, including data on the amount of capital it invested in hedge funds over the time period, its revenue in this area appears insignificant compared with the other bank holding companies.

During this 4.5-year period, the six largest bank holding companies experienced combined revenues from investments in hedge funds of $8.4 billion, with average and median quarterly firm revenue of about $77 million and $69 million, respectively. The maximum individual firm revenues and losses for any quarter during this period ranged from revenues of $501 million to a loss of $500 million. For private equity fund investments, these bank holding companies experienced combined revenues of about $14 billion over the entire time period, with average quarterly revenue of $125 million and median quarterly revenue of $134 million. The maximum individual firm revenues and losses for any quarter during this period ranged from a revenue of $1.4 billion to a loss of $3.2 billion.

The revenues from the six largest bank holding companies' hedge fund and private equity fund investments were small compared to their total firmwide revenues during 14 of 18 quarters when these investments produced combined revenues (see fig. 6). Revenues from these investments represented between about 0.08 to 3.5 percent of these bank holding companies' combined revenues during this period.

Figure 6: Combined Revenues or Losses from Hedge and Private Equity Fund Investments, and Total Revenues at the Six Largest U.S. Bank Holding Companies, Third Quarter 2006 through Fourth Quarter 2010



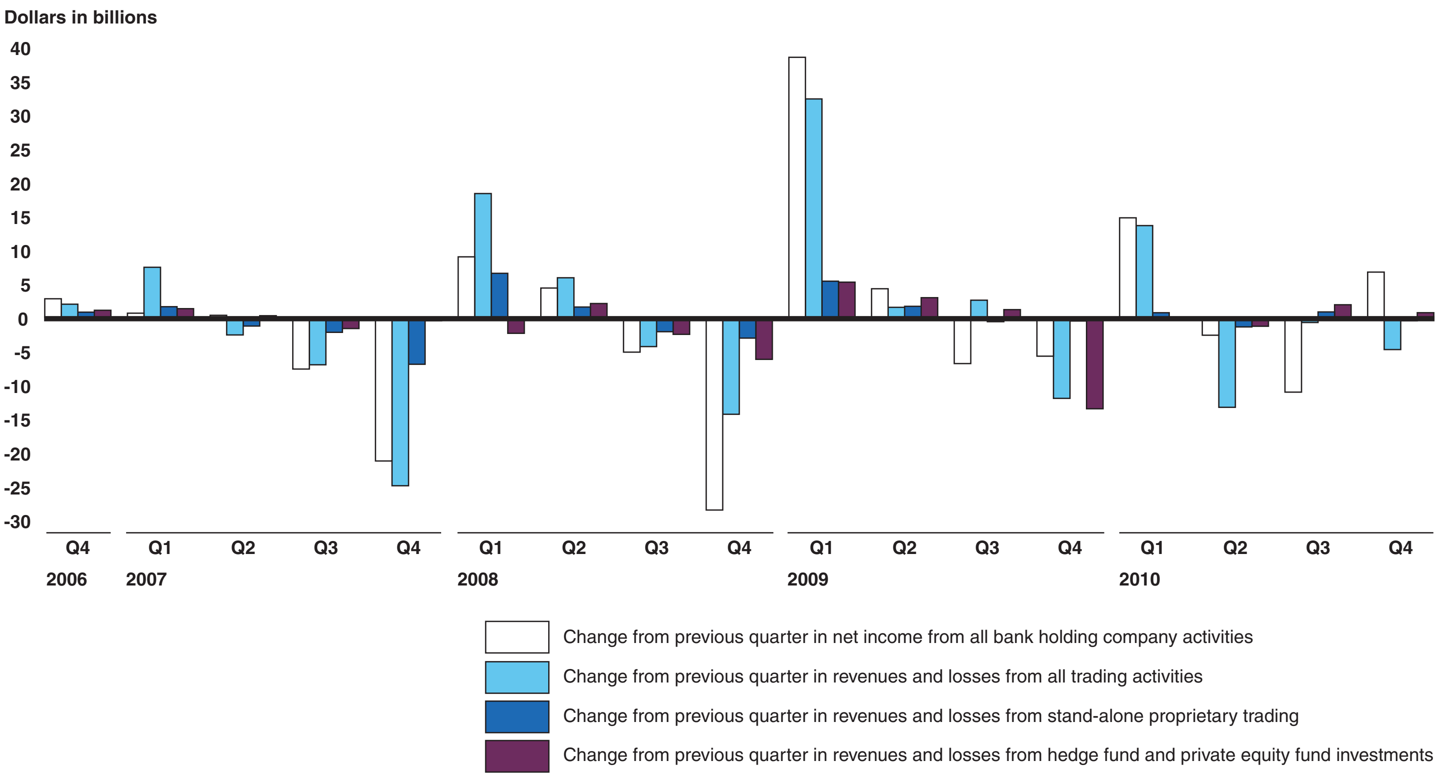
Sources: GAO analysis of data reported by six largest U.S. bank holding companies and publicly reported revenue data.

Note: These results reflect the total dollar amount of revenue or loss generated from capital invested. Therefore, the greater the investment, the greater the potential amount of revenue or loss.

Other Activities Affected These Firms' Overall Net Incomes More Than Their Stand-Alone Proprietary Trading and Hedge and Private Equity Fund Investments

The full profits and losses from all activities at the six largest bank holding companies are represented by their publicly reported net income, which includes all their revenues less all their expenses for all of their business activities. Although the period of June 2006 to December 2010 included the worst financial crisis in 75 years, the firms' combined net incomes were positive in 16 out of the 18 quarters, even with combined losses from stand-alone proprietary trading in 5 of those quarters. To further examine the impact of stand-alone proprietary trading and hedge fund and private equity fund investment activities on their overall performance during this time period, we determined the change in each quarter from the previous quarter in the combined net income of the six firms—which would be negative when a firm experiences either less revenue or losses in particular business activities—and compared them to changes in revenues or losses from all trading activities, stand-alone proprietary trading, and private equity fund and hedge fund investments. As shown in figure 7, in quarters when the bank holding companies experienced large increases or decreases in firmwide net income from the previous quarter, changes in revenues or losses from stand-alone proprietary trading and hedge fund and private equity fund investment from the previous quarter generally represented only a small portion.

Figure 7: Change from Previous Quarter in Firmwide Net Income, and Change from Previous Quarter in Revenues and Losses from All Trading, Stand-Alone Proprietary Trading and Hedge Fund and Private Equity Fund Investments for the Six Largest U.S. Bank Holding Companies, Fourth Quarter 2006 through Fourth Quarter 2010



Sources: GAO analysis of data reported by six largest U.S. bank holding companies and publicly reported net income and revenue data.

Note: Data shown here on stand-alone proprietary trading—which is conducted at desks that are organized by a banking entity with the specific purpose of trading a firm's own capital—does not include other proprietary trading that may have taken place at the institutions, depending on how the term is defined as part of the rulemaking to implement Section 619 of the act.

During this 4.5-year period, the six firms usually experienced larger revenues and losses from activities other than stand-alone proprietary trading and investments in hedge and private equity funds, including writedowns on the values of these firms' positions in CDOs and leveraged loans, and potentially including aspects of these and other activities that could be defined as prohibited proprietary trading as part of the rulemaking.[34] One large bank holding company reported almost $21 billion in writedowns in 2008 as the result of subprime CDOs or other subprime-related direct exposures. In addition, the three largest bank holding companies reported combined losses of almost $11 billion in the same year from leveraged lending. Staff at the financial regulators and the financial institutions we interviewed also noted that losses associated with lending and other risky activities during the recent financial crisis were greater than losses associated with stand-alone proprietary trading. For example, one of the firms reported increasing the reserves it maintains to cover loan losses by more than $14 billion in 2008 and another of the firms increased its loan loss reserves by almost $22 billion in 2009. Further, FDIC staff, whose organization oversees bank failures, said they were not aware of any bank failures that had resulted from stand-alone proprietary trading.

However, whether certain investment and underwriting activities should or will be restricted has been subject to debate. When expressing concerns over the impact of proprietary trading, some policymakers and at least one researcher include certain types of principal investments or proprietary investment portfolios, which usually refer to the firms' longer-term investment portfolio activity and in some cases have caused significant losses or failures. For example, according to the examiner in the Lehman Brothers bankruptcy case, part of the failure of Lehman Brothers was largely attributable to that firm's investments in commercial real estate and private equity investments in other companies, or what the report refers to as principal investments, and what in an interview its author referred to as proprietary trading.[35] An April 2011 staff report by the Senate Permanent Subcommittee on Investigations provided additional information on proprietary trading activities of certain financial institutions

[34]A leveraged loan is one made to a company or other entity that already holds a considerable amount of debt, usually increasing the amount of risk and corresponding loan cost.

[35]In re Lehman Brothers Holdings Inc., Case No. 08-13555 (Bankr S.D.N.Y), Report of Anton R. Valukas, Examiner, (Mar. 11, 2010).

and their role in the financial crisis.[36] In addition, policymakers and at least one researcher have raised questions about whether the riskiest tranches of mortgage-backed securities, CDOs, or other securities that were routinely held by the underwriter as part of the securitization and sales process and that contributed to significant CDO losses should be considered proprietary trading. Such losses are reflected in our data on stand-alone proprietary trading only to the extent that they were reported as revenues or losses at stand-alone proprietary-trading desks. However, the extent to which these activities were included in the stand-alone proprietary trading data is not known.

While Some Market Participants See the New Restrictions as Having Negative Consequences, Information on Such Potential Outcomes Was Limited

Some financial institutions, policymakers, and researchers have expressed concerns about potential negative consequences of the restrictions on proprietary trading and hedge and private equity fund investments. First, some banking industry representatives and other market observers have said that the restrictions could reduce the ability of banks to offset risks in other areas. One bank holding company representative noted that because proprietary-trading desks often use innovative and in some cases countercyclical trading strategies, their activities at banking entities have at times allowed for diversification of risk that has improved the bank holding companies' overall safety and soundness. Although such an effect may exist, our analysis of the data reported by the six largest bank holding companies found that stand-alone proprietary trading and hedge and private equity fund investment activities represented a small portion of revenues from all trading and bank holding company activities. Also, the revenues and losses from stand-alone proprietary trading were not particularly uncorrelated to overall revenues or losses over the time period we reviewed. In addition, our findings that stand-alone proprietary trading during the period we reviewed required firms to take greater risks than all trading activities on average to generate the same amount of revenue and that these firms' VaR risk models were less capable of predicting the actual risks associated with stand-alone proprietary trading reduces the potential benefits of such trading to offset other losses.

[36]U.S. Senate Permanent Subcommittee on Investigations, Committee on Homeland Security and Governmental Affairs, *Wall Street and the Financial Crisis: Anatomy of the Financial Collapse*, Majority and Minority Staff Report (Washington, D.C., Apr. 13, 2011).

Some market observers believe the restrictions could potentially reduce the competitiveness of U.S. firms by restricting their activities compared to their international competitors. According to interviews with foreign regulatory bodies, many countries are looking at changing capital requirements for proprietary trading activities, but no other industrialized countries in Europe or around the world plan to enact provisions that parallel the U.S. restrictions. The foreign regulators we spoke with indicated that if the U.S. restrictions were implemented in a way that restricts the ability of U.S. banking entities to serve their clients through market-making, underwriting, or in other ways, that U.S. banking entities could lose business to their competitors in Europe and elsewhere. Further, two recent reports issued by a research department of J.P. Morgan Chase—one of the six largest bank holding companies that was included in our analysis and that would be impacted by the proprietary trading restrictions—stated that those restrictions represented a material benefit to certain European financial institutions over those in the United States because of the regulatory arbitrage that would exist across countries.[37] However, this analysis does not incorporate the potential competitive benefits, such as reduced funding costs to these firms if they were less exposed to risks and losses during periods of economic instability, as we saw during the recent crisis. In addition, according to representatives of one foreign financial institution, revisions to international capital standards, and changes to laws in other countries could force competitors of U.S. firms to similarly restrict their trading and fund investment activities, which would minimize the competitive impacts of the U.S. restrictions.

According to some market observers, the restrictions may also reduce the amount of liquidity in financial markets, depending on how they are implemented. They say if the restrictions are enforced too strictly and limit activities—in particular the taking of principal positions—that are critical to making markets for various financial instruments, including certain equities, exchange-traded funds, and U.S. corporate bonds, then the effects may be detrimental. Representatives at the six largest bank holding companies and some commentators on the FSOC study explained that in order to effectively make liquid markets, especially for

[37]JPMorganChase*, Global Investment Banks: Regulatory Arbitrage I: Tougher than expected Volcker rules undiscounted - OW Euro IBs* (Jan. 12, 2011), and J.P.Morgan Cazenove, *Global Investment Banks: Regulatory Arbitrage Series: OW European over US IBs* (Mar. 8, 2011).

products other than stocks, traders sometimes need to assume principal risk in order to take on inventory and move orders effectively. If the restrictions limited market-makers' ability to assume such risk, traders could stop providing liquidity in certain markets, making it more difficult or expensive for corporations, state and local governments, or other clients to finance their activities or hedge their investments. A January 2011 report prepared by a consulting group that was commissioned by the Securities Industry and Financial Markets Association—an industry group that represents securities firms, banks, and asset managers—described the importance of implementing the restrictions in a way that did not reduce liquidity associated with permitted activities.[38] In addition, representatives of two bank holding companies expressed concerns that the proprietary trading restrictions could limit their ability to respond to individual instances of severe market illiquidity, such as a flash crash, as occurred in U.S. equity markets on May 6, 2010, or the failure of a large member of a derivatives clearinghouse. They noted that in these instances regulators may need to provide financial institutions with additional flexibility to hold inventories or make purchases that could resemble proprietary trading in order to support market functioning. However, limited research exists on these hypothetical outcomes. The Securities Industry and Financial Markets Association-commissioned study provided little empirical data to indicate the extent to which the restrictions on proprietary trading and investments in hedge and private equity activity might impact the liquidity of financial markets.

Finally, some policymakers, researchers, and others have said that the restrictions could push risky trading and other activities to less-regulated financial institutions, such as hedge funds. Financial institutions have begun to shut down stand-alone proprietary trading operations and in at least one case announced plans to spin off the operations to unaffiliated and separately capitalized funds. Opponents of the restrictions argue that proprietary trading could present greater risks to the financial system if much of the activity in the future is conducted out of less-regulated entities, such as hedge funds, whose advisers only recently were required to register and provide data to SEC, rather than banking entities, which are subject to on-site safety and soundness supervision and examination programs. However, losses occurring at hedge funds and other nonbank

[38]Oliver Wyman, *The Volcker Rule: Considerations for Implementation of Proprietary Trading Regulations* (Washington, D.C., January 2011).

entities are less likely to pose risks to the U.S. banking system than those occurring within bank holding companies. In addition, to the extent that proprietary trading migrates to entities outside of the banking system, no actual reductions in the level of market liquidity may occur.

More Comprehensive Information Will Be Needed to Fully Monitor Compliance with New Restrictions

Federal regulatory oversight has not always been effective in assessing the adequacy of risk management of the largest financial institutions, a key part of overseeing the implementation of Section 619. While implementing proprietary trading and hedge fund and private equity fund restrictions poses challenges, effective data collection will be critical to oversight.

Oversight Has Not Always Been Effective in Assessing the Adequacy of Risk Management at the Largest U.S. Financial Institutions

The Federal Reserve, OCC, and SEC share primary responsibility for overseeing risks associated with trading and investment activities by large U.S. bank holding companies, including proprietary trading and fund investment activities. Responsibilities for oversight depend on which legal entity is conducting the activity. The Federal Reserve, as the consolidated supervisor of bank and thrift holding companies, plays the primary role in overseeing these activities across the institution, including its subsidiaries, but also largely relies on OCC and SEC to oversee activities conducted out of national bank and broker-dealer subsidiaries of the holding company, respectively.[39] To oversee the risks of trading and other activities, regulators conduct ongoing monitoring and surveillance, meet with financial institution executives and risk management personnel, and conduct targeted risk-based reviews of specific business lines or key controls across the holding company. In some cases, regulators have somewhat different goals in their oversight. For example, OCC focuses on the safety and soundness of the national banks within holding

[39]Other financial regulatory agencies and self-regulatory agencies also contribute to the oversight of trading and investment activities at large U.S. bank and thrift holding companies. These include FDIC, which oversees state-chartered banks that are not members of the Federal Reserve System and state-chartered thrifts; and the Commodity Futures Trading Commission, which oversees futures commission merchants. State regulators also oversee state-chartered institutions. In addition, the Financial Industry Regulatory Authority is the self-regulatory organization that oversees trading by broker-dealers.

companies, while SEC focuses on regulations intended to promote investor protection, market integrity, and capital formation.[40]

To oversee proprietary trading and investments in hedge funds and private equity funds, the staff from the Federal Reserve, OCC, and SEC described following generally similar approaches that focused on how the institutions managed the risks associated with such activities, which are a subset of all trading and investment activities. As part of their risk-based examinations of all trading and investment activities, in recent years these regulators have conducted examinations that in some cases focused on internal controls and specific business lines related to proprietary trading or investments in hedge and private equity funds. However, these reviews were generally designed to test key controls, compliance, or overall risk management in these areas rather than to specifically focus on proprietary trading or investments in hedge and private equity funds.[41] Representatives of these agencies told us that until the enactment of the act, their oversight of trading activities generally did not distinguish between proprietary trading and trading conducted on behalf of customers, because they examined both activities when assessing a firm's overall management of risk arising from all business lines. As a result, they have generally not had separate procedures in place to examine proprietary trading activities or to distinguish whether financial instruments were bought or sold for proprietary or other purposes. In some limited situations, regulators in the past sought to define market making and distinguish it from proprietary trading or other activities. For

[40]For more information about risk management at large financial institutions, see GAO, *Review of Regulators' Oversight of Risk Management Systems at a Limited Number of Large, Complex Financial Institutions*, GAO-09-499T (Washington, D.C.: Mar. 18, 2009).

[41]In 2008, we reported on efforts that regulators had made to assess bank holding companies' exposures to external hedge funds. As noted in that report, regulators had not specifically monitored hedge fund activities on an ongoing basis, but had increased their reviews of policies and procedures to mitigate counterparty credit risk at large institutions. For example, the Federal Reserve conducted reviews between 2004 and 2007 of credit risk management practices that involved hedge fund-related activities at several large banks. The Federal Reserve concluded that the banks generally had strengthened practices for managing risk exposures to hedge funds but could further enhance firmwide risk management systems and practices. These practices included expanded stress testing, which measures the potential impact of various scenarios or market movements on an asset, counterparty exposure, or the value of a firm's portfolio. See GAO, *Hedge Funds: Regulators and Market Participants Are Taking Steps to Strengthen Market Discipline, but Continued Attention Is Needed*, GAO-08-200 (Washington, D.C.: Jan. 24, 2008.)

example, as part of an effort to implement additional requirements related to short selling—in which a party borrows stock from another party and then sells it in order to profit from declines in its value—SEC developed guidance that defined market making in equities markets as making continuous, two-sided quotes and holding oneself out as willing to buy and sell on a continuous basis; making a comparable pattern of purchases and sales of a financial instrument in a manner that provides liquidity; making continuous quotations that are at or near the market on both sides; and providing widely accessible and broadly disseminated quotes.[42] In addition, bank regulatory manuals in some cases instruct examiners to take steps that would identify proprietary trading, although given the risk-based nature of oversight at the largest bank holding companies, these manuals have served as a reference rather than as specific examination procedures. Finally, OCC examiners said that they had discussed with bank managers the intent behind certain trading activities and then verified through profit and loss and other information that the risk profile is consistent with the financial institution's stated intent.

Federal financial regulators have also taken steps to prevent what they consider conflicts of interest associated with trading and investment activities. For example, banking regulators told us that they rely on their safety and soundness authority to require that financial institutions maintain policies and procedures to address conflicts of interest, including focusing on conflicts that could create possible reputational risks for the institutions. As part of regulating securities broker-dealers, SEC staff oversee compliance with Section 15(g) of the Securities Exchange Act of 1934, which requires all registered broker-dealers to establish, maintain, and enforce written policies and procedures reasonably designed to prevent the misuse of material nonpublic information they obtain.[43] In the past, SEC conducted examinations of the effectiveness of the information barriers that broker-dealers used to prevent "leakage" of information from customer-focused trading desks to proprietary-trading desks, which in part led to the enforcement action discussed earlier. In addition, in 2007, SEC conducted examinations of 11 broker-dealers that, although not

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[42]SEC Release No. 34-58775 (Oct. 14, 2008). For a more detailed discussion of SEC guidance regarding market making, see FSOC report at 28–29.

[43]15 U.S.C. 78o(g), formerly subsection 15(f), redesignated by Pub. L. No. 111-203 § 929X(c).

directly related to proprietary trading, sought to determine whether certain of these firms were providing nonpublic information about large market-moving orders to certain favored customers, such as hedge funds. According to SEC staff, determining whether broker-dealers were leaking customer order information was difficult, even after an extensive multi-year, data-intensive examination, and SEC closed these investigations without filing charges.

Our prior work showed that these financial regulators have been challenged in overseeing large financial institutions' risk management efforts on a comprehensive basis. Prior to the most recent crisis, the Federal Reserve, SEC, and the Office of Thrift Supervision each had responsibilities for overseeing the largest bank holding companies, investment banks, and thrift holding companies, respectively. In a 2009 review, we found that although these regulators had identified numerous weaknesses in institutions' risk management systems before the financial crisis began, they had not always taken steps to fully ensure that the institutions adequately addressed the weaknesses.[44] For example, regulators had identified inadequate oversight of institutions' risks by senior management, but the regulators noted that these institutions had strong financial positions and that senior management had presented the regulators with plans for change. However, the regulators did not take steps to fully ensure that these changes were quickly or fully implemented until the crisis revealed that the systems were still not adequate. Regulators had also identified weaknesses in the quantitative models that these firms used to measure and manage financial risks but may not have taken action to resolve these weaknesses. For example, regulators did not prohibit at least one institution from using untested models to evaluate risks and did not change their assessment of the institution's risk management program after these findings. Finally, regulators had identified numerous weaknesses in stress testing—scenarios used to model the effects of adverse events or shocks on firms' portfolios—at several large institutions without having taken aggressive steps to push institutions to better understand and manage risks. In an earlier report, we found that holding company regulators lacked full authority or sufficient

[44] GAO-09-499T.

tools and capabilities to adequately oversee the risks that these financial institutions posed to themselves and other institutions.[45]

The Financial Crisis Highlighted Weaknesses in Oversight and Spurred Efforts to Better Identify Risks

The financial crisis also revealed some significant challenges faced by regulators in overseeing trading, investment, and other activities at large U.S. financial institutions. For example, institutions overseen by OCC and the Federal Reserve, including Citigroup and Bank of America, experienced large losses or increases in reserves for anticipated losses during the crisis. The oversight failures of SEC and the Office of Thrift Supervision ultimately resulted in changes that eliminated their role in overseeing holding companies going forward.[46] During the recent crisis, all five of the investment banks that SEC had been overseeing through its voluntary Consolidated Supervised Entities program either failed, were purchased at reduced values by other financial institutions, or became bank holding companies in order to permanently obtain official access to Federal Reserve emergency liquidity going forward. According to SEC staff, the voluntary nature of the Consolidated Supervised Entities Program limited the authority of the agency to enforce new requirements on investment banks that were part of the program. According to the report prepared by the bankruptcy examiner for Lehman Brothers, which failed in September 2008, this broker-dealer had changed its business strategy in 2007 to focus more on making principal investments in commercial real estate, providing funding as part of leveraged lending for mergers and acquisitions, and making more private equity or similar investments in other companies. However, the bankruptcy examiner reported that this firm's staff had disregarded its risk management policies and limits that had been set for these activities, had not included some of these positions in the calculations it used to measure its total firmwide risk levels, and failed to hedge some of these investments to reduce their risk to the firm. Although aware of some of these actions, the bankruptcy examiner noted that SEC staff had sought only to ensure that the financial institution's board was informed of and had approved these changes. In testimony on April 20, 2010, in response to the bankruptcy examiner's

[45]GAO, *Financial Market Regulation: Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration,* GAO-07-154 (Washington, D.C.: Mar. 15, 2007).

[46]GAO, *Financial Regulation: A Framework for Crafting and Assessing Proposals to Modernize the Outdated U.S. Financial Regulatory System,* GAO-09-216 (Washington, D.C.: Jan. 8, 2009).

report, SEC's chairman acknowledged that SEC staff should have challenged Lehman Brother's management more forcefully regarding the types of risks the firm was taking and imposed meaningful requirements or limitations when necessary.[47] Similarly, the Office of Thrift Supervision failed to adequately oversee the credit default swap activities of an American International Group, Inc. (AIG) subsidiary, which added to other regulatory failures to result in serious liquidity issues and necessitated significant government assistance.[48] Beginning in July 2011, the largest U.S. financial institutions will all be holding companies overseen at the holding company level by the Federal Reserve. Although the Federal Reserve retains this responsibility, its failures in identifying and addressing problems at large bank holding companies were revealed during the financial crisis, when some large bank holding companies experienced large losses or required significant capital infusions to remain solvent.

Since the crisis, various regulatory changes have been made or are underway that are intended to reduce the risks that trading and other activities pose to the safety and soundness of these large institutions. Regulators told us they are overseeing significant changes that financial institutions are making to their risk management models, including improvements to their stress testing. Representatives of bank holding companies explained that they now use VaR measures with longer time horizons that include a fuller range of economic cycles to increase their models' accuracy and consistency. According to Federal Reserve staff, the time frames from which the financial institutions' models drew their historical loss experiences—their look-back periods—and which the regulators used to determine capital adequacy, were not sufficiently long enough to account for periods of varying market returns. Additionally, the staff at one large bank holding company we reviewed told us that they were working to incorporate more complicated, and often illiquid, assets into their firms' VaR measures. Officials from another institution noted, for example, that it had instituted a new policy to incorporate the warehousing risk from CDOs that arises during the period that an institution is accumulating the underlying securities that will be used to

[47]See, Chairman of the Securities and Exchange Commission Mary L. Schapiro, *Testimony Concerning the Lehman Brothers Examiner's Report*, Before the House Financial Services Committee (Apr. 20, 2010).

[48]AIG was a savings and loan holding company regulated by the Office of Thrift Supervision because of its control of a savings association.

create the CDO securities. They indicated having had such a practice in the past would have helped their firm better identify the risks it was bearing associated with super-senior CDO tranches, which created large losses during the crisis.[49] Financial institutions also told us that they were creating “stress-VaR” models that attempted to model a “doomsday scenario” of dramatic market price movements similar to those that occurred during the 2008 financial crisis. The institutions also noted that they were trying to develop better measurements of returns earned per unit of risk taken.

In addition, changes to capital requirements, broadly and with respect to the trading books at financial institutions, should mitigate risks to the financial system. According to the FSOC study and Federal Reserve staff, prior to the crisis, capital requirements were in many cases lower for assets held in trading books (because of an assumed higher amount of liquidity), which caused banks to move many of their riskier assets there. Under new rules that are expected as a result of the July 2009 Basel III international capital accord, mortgage-backed securities, CDOs, and other complex products will face stricter eligibility requirements for inclusion in trading accounts. Those that are included will face higher capital charges to mitigate risks associated with such products.[50] More generally, Basel III aims to increase minimum common equity requirements from 2 to 4.5 percent and tier 1 capital requirements from 4 to 6 percent and to add a new “conservation buffer” of an additional 2.5 percent.[51] Section 171 of the act also requires regulators to establish, on a consolidated basis, leverage and risk-based standards currently applicable to U.S. insured depository institutions for U.S. bank holding companies and nonbank financial companies supervised by the Federal Reserve.[52] Finally, the act’s changes that enhance the Federal Reserve’s

[49] Super-senior tranches were the securities within a CDO that were assigned higher credit ratings and presumed to present lower risks.

[50] The Basel Committee on Banking Supervision, established in 1974, is an international body of banking supervisors that sets standards on capital adequacy, among other things. The committee announced the Basel III details on September 12, 2010. Over the next several years, the U.S. will develop rules to implement Basel III to apply to U.S. financial institutions.

[51] Tier 1 risk-based capital is considered core capital—the most stable and readily available for supporting a bank’s operations and includes elements such as common stock and noncumulative perpetual preferred stock.

[52] Pub. L. No. 111-203 § 171.

oversight of nonbank subsidiaries of bank holding companies and nonbank financial companies should help ensure a more consistent and comprehensive approach to overseeing trading activities at large U.S. financial institutions.[53]

Given the significant challenges that regulators have faced in overseeing large financial institutions' risk management efforts, which includes the risks arising from these firms' trading and investment activities, the restrictions on proprietary trading and hedge fund and private equity fund investments should reduce the scope of risks that regulators will have to oversee going forward. However, implementing the act's restrictions to fully ensure that such risks no longer exist at the firms raises new challenges for the regulators.

Implementing the Restrictions on Proprietary Trading and Hedge and Private Equity Fund Investments Poses Challenges

To make recommendations on effectively implementing the act's restrictions on proprietary trading and hedge fund and private equity investments, FSOC issued a report in January 2011 that included an overview of the key issues financial regulators should consider when they issue rules and specific recommendations on how regulators and financial institutions might monitor and enforce the new rules. Several key challenges remain, however, including distinguishing prohibited proprietary trading from market making and appropriately defining terms associated with the restrictions on hedge fund and private equity fund investments.

The FSOC study and our interviews with large U.S. bank holding companies and their regulators found that a key challenge in implementing the proprietary trading restrictions will be disentangling activities associated with market-making, hedging, and underwriting from prohibited proprietary trading activities.[54] For example, when a firm's

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[53]Under Section 604 of the act, the scope of the Federal Reserve's supervisory authority with respect to bank holding companies and their nonbank subsidiaries was expanded, effective July 21, 2011. Pub. L. No. 111-203 § 604 (amendments to section 5(c) of the Bank Holding Company Act of 1956, 12 U.S.C. § 1844(c)). The act provides similar authority for nonbank financial companies supervised by the Board and provides for recommendations of supervisory standards by the FSOC. Pub. L. No. 110-203 §§ 161, 162, 115.

[54]For more information, see Financial Stability Oversight Council, *Study & Recommendations on Prohibitions on Proprietary Trading & Certain Relationships with Hedge Funds and Private Equity Funds*, 22–25.

traders purchase bonds from a client as part of market making, the position they hold in those bonds poses the same risk of loss to the firm as bonds purchased in a proprietary trade. As a result, regulators face the challenge of monitoring firms' market-making activities and positions to fully ensure they are sufficiently hedged and that inventories of financial assets being held are appropriate in both size and duration of turnover consistent with market making activities.

Representatives of the large U.S. bank holding companies we interviewed expressed a number of concerns about the potential negative consequences of implementing the proprietary trading restrictions in a way that prohibited any principal trading. As mentioned previously, representatives from several financial institutions believed that prohibiting institutions from holding inventory would reduce liquidity, especially for already illiquid markets in which buyers and sellers cannot always be quickly matched. Staff from several institutions said that customer-driven trades were often hedged with a number of off-setting trades rather than with a single matching hedge. For example, a manager of trading at one firm explained that a single large derivatives contract traded between his firm acting as a market maker and one of its clients could result in the firm having to conduct as many as 30 smaller offsetting equities trades to fully hedge the risk. Staff at another financial institution argued that to be effective market makers and get the best prices for their clients, their traders needed current information on pricing (i.e., price discovery) and trends in the marketplace that could be gathered only through active trading. And staff at two firms told us that having regulators attempt to ensure that no proprietary trading has occurred would be resource intensive if not impossible.

The FSOC study approached this issue by recommending that firms monitor certain metrics that could indicate when impermissible proprietary trading is occurring within permitted market-making activities. The study suggested a number of potential quantitative metrics related to revenue, risk, inventory, and customer flow, which regulators could require banking entities to implement and review in order to guard against future impermissible activities. For example, using revenue data, regulators could identify instances in which revenue over a certain time-period is outsized compared to recent trends. Regulators could also determine from revenue data whether traders are acting as market makers by making most of their profit at the time positions are taken, or if they are instead profiting from appreciation of assets, which could indicate proprietary trading. They could also use revenue-to-risk measures to distinguish market-making from proprietary trading, because the lower

VaR and other risk and volatility measures associated with market-making result in higher revenue-to-risk data than with proprietary trading. In addition, they can use inventory turnover and aging metrics that track the length of time assets remain on a financial institution's balance sheet, which can help regulators determine whether the holding periods for assets appears consistent with activities undertaken for customers rather than for trying to earn profits for the firm by holding for longer periods. Finally, the FSOC report mentioned that if regulators require institutions to classify their trading between "customer-initiated" and "trader-initiated" transactions, both banking entities and regulators would be able to use this customer-flow data in quantitative metrics and ratios to better identify impermissible proprietary trading.

Staff at some financial institutions we spoke with supported this approach, given the difficulties of differentiating between legitimate market-making and proprietary trading. Financial regulators also noted the challenges of such a distinction. FDIC representatives said that in 2005 the regulators tried to define proprietary trading as part of an effort to better oversee such activity but ultimately could not. They noted that preventing proprietary trading required a subjective, case-by-case evaluation. Any other approach, they said, would either be too broad and overly inclusive or too narrow—that is, it would miss some activities.

The FSOC study recommended a four-part framework to monitor and enforce the proprietary trading restrictions. First, the study recommended a programmatic compliance regime that would require banking entities to implement policies, procedures, and internal controls designed to ensure that the institutions adhered to the provisions. Second, banking entities would be required to report and provide sufficient data and records to regulators on their market-making and hedging activities so that regulators could determine whether any improper proprietary trading was taking place. Third, the regulatory agencies would periodically review and test the banking entities' policies and procedures to help ensure that they were in compliance with the proprietary trading restrictions and to address any potential violations. Finally, as part of the supervisory process, banking entities would be subject to penalties or legal actions for violating proprietary trading restrictions.

Regulators will also face challenges in defining terms associated with the restrictions on hedge fund and private equity investments. The proprietary trading prohibition defines hedge funds and private equity funds as issuers that rely on certain exemptions from the definition of "investment company" under Section 3 of the Investment Company Act or such similar funds as agencies determine by rule.[55] As the FSOC report noted, those exclusions are used not just by hedge and private equity funds, but also by a wide variety of other legal entities. For example, one financial institution expressed concerns that their firm's own employee pension funds could meet the definition of the act, which could mean that the restrictions could affect investments that firms made to benefit their retired employees. At the same time, the act's definition of a covered fund may not capture funds such as commodity pools that invest in oil or other commodities and that pose risks similar to those posed by the covered funds. Staff at one institution also expressed concerns that their investments in certain of their subsidiaries were structured in ways that could mean that they met the definition of a fund in which investment would be restricted. Other firms' staff noted that by limiting their ability to invest in a fund they have created at levels greater than 3 percent after one year, the act may not give them enough time to prove a fund's performance track record before seeking outside investors. According to this firm's staff, many investors expect to see a history of at least 3 years of fund returns before they are allowed to, or are otherwise willing to, invest in a fund. This issue will require regulators to consider the congressional intent behind the restrictions and appropriately define these and other terms. As we have seen, taking steps to ensure that the prohibition on hedge fund and private equity fund investments is implemented without creating a loophole that would exclude funds that should fall under its scope, without inadvertently including under the restrictions other types of funds that were not intended to be included will be important.

Clearly regulators face challenges in implementing the new restrictions. Without appropriate monitoring of trading activities, however, financial institutions could also abuse permissible activities, using them to conduct prohibited proprietary trading activities. Our review of the proprietary trading activities of large bank holding companies revealed that some financial institutions have pursued strategies that were a combination of client-focused transactions and proprietary positioning, activities which could be considered impermissible proprietary trading activities but go unnoticed if they were not monitored appropriately. For example, as noted

[55] 12 U.S.C. § 1851(h)(2). The Investment Company Act exemptions apply to private funds owned by not more than one hundred persons that do not make a public offering and private funds owned exclusively by qualified purchasers that do not make a public offering. 15 U.S.C. § 80a-3(c)(1), (7).

earlier, one regulator summarized the trading activities of one business line of one large bank holding company we reviewed as generating revenue mostly from client flow but noted that the business line also had a trading desk that sought to profit from long-term positioning of inventory based on their traders' views of the market. Also, according to the description, the financial institution's customer flow trading desk may hold large inventory positions that exceed the amount necessary to facilitate client trades when the desk has a particular view on the direction of the market. Implementing and enforcing the restrictions to address activities such as this will be difficult.

As we have noted, the act requires the Federal Reserve, OCC, FDIC, SEC, and the Commodity Futures Trading Commission to issue final rules to implement the restrictions on proprietary trading and hedge fund and private equity fund investments by October 2011.[56] To inform this process, in recent months regulators have met with and collected general information, but not comprehensive data, from the largest U.S. bank holding companies on their proprietary trading and hedge fund and private equity fund activities.

Specifically:

- To inform the FSOC study released in January 2011, officials at Treasury said that they and the regulators had collected information from large institutions on ways the banks could implement the provisions, including ways of adapting their risk management systems to monitor compliance.

- Representatives of the Federal Reserve and OCC explained and provided documents supporting that as part of their ongoing monitoring of the largest bank holding companies, they monitor the trading and investment activities of the firms they oversee, including proprietary trading and other activities that may be restricted.

- At our request, Federal Reserve and OCC examination staff gathered some general information on the trading activities at each of the six firms.

[56]The rules are to be promulgated "not later than 9 months after completion" of the FSOC study. 12 U.S.C. § 1851(b)(2).

These financial regulators initially considered collecting specific data on the nature and volume of proprietary trading and investment activity at the largest firms as part of the FSOC study. However, they instead focused on meeting with representatives of the largest financial institutions to gather qualitative information about how the entities monitor and manage the risks of trading and investment activities. As a result, the regulators have not compiled specific data on the nature of and volume of trading at stand-alone proprietary-trading desks, nor have they attempted to get a more comprehensive understanding of the extent to which the firms are taking proprietary positions as part of conducting other trading or investment activities. Having such information, including more complete data on the amounts of revenue and VaR levels of these firms' market-making desks that may be conducting proprietary trading now would help regulators monitor the changes the bank holding companies make and provide them with a comparative baseline to assist in quantitatively observing that the firms' trading inventories and revenues change in the ways expected once the act's restrictions are in place.

While examiners have collected some information on certain trading and fund activities, they have yet to collect comprehensive information. Staff from some of these regulators told us that they have not collected more comprehensive information because they have not yet written the final rules to define with greater specificity the types of trading and investment activities that will be prohibited. Indeed, collecting such information before the rule is finalized would be difficult without more specificity about permissible activities and the scope of coverage of certain types of fund investments. However, such an effort could be effective if regulators identified and collected information on a broader set of activities than may be prohibited to help ensure they are aware of all trading and funds that could potentially be covered. Such a process would almost certainly inform the regulators about definitional and other issues that could be useful as part of the rulemaking.

Such information could also be collected after the rules are finalized but would likely require each regulator to obtain data from the firms they are responsible for that covers a sufficiently long enough period prior to the implementation of the rules to fully ensure they have a sufficient baseline of activity to understand and be able to better assess whether the firms are changing their activities as required by the rules. Conversely, FSOC could direct the Office of Financial Research, which was created within the Department of the Treasury by the act to facilitate more robust and sophisticated analysis of the financial system, to collect such information and share it with regulators as authorized under the act.[57]

Conclusions

The ability of financial institutions to conduct stand-alone proprietary trading and investments in hedge funds and private equity funds had advantages and disadvantages. While the activities produced a steady—if small—revenue stream for the institutions, they also contributed to losses during the financial crisis, which added to even greater losses from their lending and securitization activities. The extent that proprietary trading activities occur elsewhere in the firms remains unknown. Further, these activities opened the door to potential conflicts of interest that in some cases resulted in enforcement actions against some firms. While some market participants expressed concerns that the restrictions on proprietary trading activities could negatively affect U.S. financial institutions and the economy by reducing banks' ability to diversify their income and compete with foreign institutions and reducing liquidity in asset markets, the actual potential for such effects remain unclear.

While the regulators have started to take steps to improve their oversight, the recent crisis revealed the challenges financial regulators face in overseeing trading and investment activities at large financial institutions. One challenge for regulators in implementing the act's restrictions will be to be mindful of possible unintended consequences. In addition, regulators will face the challenge of identifying and monitoring permissible activities that can create risks similar to those posed by proprietary trading and fund investments. For example, we found that many of the largest losses experienced by these firms were in activities such as lending and underwriting. For these reasons, and because of the uncertainty over whether some activities are or are not proprietary trading, regulators can best ensure the overall safety of the U.S. financial system by remaining vigilant about all activities that pose risks to large financial institutions regardless of whether such activities fall under the definitions of proprietary trading and hedge fund and private equity fund investments that regulators develop as part of the required rulemaking. However, implementing the restrictions, and in particular clarifying and requiring monitoring to better ensure that only permissible activities occur,

[57]See Pub. L. No. 111-203 § 112(a)(2)(A).

will be difficult because of these and other challenges that must be addressed. To date, the regulators have taken some positive steps to ready themselves to prepare rules and supervise compliance with the act's restrictions. Completing a more in-depth review of activities that may be covered by the act could provide information on the potential impact of the restrictions, how firms are preparing for them, whether there are efforts to evade the restrictions, and how to improve monitoring and enforcement. Because the regulators—either individually or through the Office of Financial Research—have yet to collect more complete information on the number and nature of trading desks where proprietary trading could be occurring, or firms' hedge fund and private equity fund investment activities, they risk not being able to most effectively implement the restrictions.

Recommendation for Executive Action

In order to improve their ability to track and effectively implement the new restrictions on proprietary trading and hedge fund and private equity fund investments, we recommend that the Chairperson of FSOC direct the Office of Financial Research, or work with the staffs of the Commodity Futures Trading Commission, FDIC, Federal Reserve, OCC, and SEC, or both, to collect and review more comprehensive information on the nature and volume of activities that could potentially be covered by the act.

Agency Comments and Our Evaluation

We provided a draft of this report to the Department of the Treasury, whose Secretary serves as the chairperson of FSOC; Commodity Futures Trading Commission; FDIC; Federal Reserve; OCC; Office of Thrift Supervision; SEC; and representatives of the six bank holding companies from which we collected data. The Commodity Futures Trading Commission, Department of the Treasury, FDIC, Federal Reserve, OCC, and SEC provided written responses, which are reprinted in appendixes II through VII. Some of the agencies and bank holding companies provided technical comments that we incorporated as appropriate.

The letters from the Commodity Futures Trading Commission, Department of the Treasury, FDIC, OCC, and SEC stated that the agencies will consider our recommendation as part of their Section 619 rulemaking process. The Commodity Futures Trading Commission, Department of the Treasury, FDIC, Federal Reserve, and OCC stated that, as noted in the FSOC study, the collection of and analysis of information about trading activities is an important part of understanding trading activities and identifying prohibited proprietary trading. The Department of the Treasury, FDIC, and OCC said that as part of this process they would consider whether certain metrics or other data could be collected during the conformance period.

The Department of the Treasury, FDIC, OCC, and SEC stated, as we did in our report, that collecting information before the rule is finalized would be difficult without more specificity about permissible activities and the scope of coverage of certain types of fund investments. Although we acknowledge the difficulties of identifying and collecting additional information, gathering more comprehensive information on the nature of and volume of trading at stand-alone proprietary-trading desks, as well as where the firms may be conducting prohibited proprietary trading at market-making desks or elsewhere in the firm, would assist the regulators in implementing the act's restrictions in various ways. Having such information, including more complete data on the amounts of revenue and VaR levels of these firms' desks that may be conducting proprietary trading now, would help regulators monitor the changes the bank holding companies make and provide them with a baseline to help observe whether the firms' trading inventories and revenues change in the ways expected once the act's restrictions are in place. The agencies' ongoing supervision and regulation of these firms, which for some agencies includes on-site examiners conducting ongoing monitoring, provides a valuable mechanism for collecting such baseline information going forward.

Finally, the Department of the Treasury, FDIC, Federal Reserve, and OCC noted that the relevant agencies (or in some letters "some or all of the relevant agencies") responsible for implementing and enforcing Section 619 are in the best position to collect and review relevant information on the nature and volume of activities that could be covered by Section 619. Our recommendation provides the Chairperson of the FSOC the flexibility to direct the Office of Financial Research, or work with staff of the agencies, or both, to collect more comprehensive information.

We are sending copies of this report to the appropriate congressional committees; the Department of the Treasury, whose Secretary serves as the chairperson of the FSOC; Commodity Futures Trading Commission; FDIC; Federal Reserve; OCC; Office of Thrift Supervision; SEC; and other interested parties. In addition, the report will be available at no charge on GAO's Web site at http://www.gao.gov.

If you or your staffs have any questions about this report, please contact me at (202) 512-8678 or williamso@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix VIII.

Orice Williams Brown,
Managing Director, Financial Markets and
Community Investment

Appendix I: Scope and Methodology

To describe what is known about the risks and conflicts of interest associated with proprietary trading and hedge and private equity fund investments, we collected and analyzed data and documents from, and interviewed federal agency officials, financial institutions, economists, researchers, and others.[1] These included: the federal financial regulators, including the Board of Governors of the Federal Reserve System (Federal Reserve), the Office of the Comptroller of the Currency, the Securities and Exchange Commission, the Federal Deposit Insurance Corporation, and the Commodity Futures Trading Commission; the Financial Industry Regulatory Authority, which is the self-regulatory organization that oversees broker-dealers; industry associations; policy research organizations; and consumer advocacy organizations. We conducted site visits and teleconferences to interview senior management and observe trading desks at the six largest U.S. bank holding companies as of December 31, 2010, which accounted for 88 percent of the total trading revenues reported by all bank holding companies as ranked by total assets reported in bank regulatory filings.[2] We also collected documents from and interviewed representatives of foreign regulators and research bodies about the U.S. restrictions and whether their countries were likely to enact similar restrictions.

In addition, to describe the risks associated with proprietary trading and investments in hedge and private equity funds, we reviewed and analyzed data from the six bank holding companies. To obtain information about the extent to which proprietary trading posed risks to these firms, we attempted to gather information on stand-alone proprietary trading as well as other proprietary trading that may be occurring within other trading

[1]Section 989 of the Dodd-Frank Wall Street Reform and Consumer Protection Act requires that we conduct a study regarding the risks and conflicts associated with proprietary trading in financial products or entities. To carry out this study we considered stand-alone proprietary trading as well as proprietary trading that may occur in relation to market-making or other activities at financial institutions. For the purposes of this report, stand-alone proprietary trading refers to trading at stand-alone proprietary-trading desks, which are those organized by a banking entity with the specific purpose of trading a firm's own capital. We generally did not include merchant banking activities or other long-term principal investments, although we discuss debate about whether such activities should be restricted. Section 620 of the act requires the appropriate federal banking agencies to jointly study and prepare a report on the activities that a banking entity may in engage in under federal and state law and the risks presented by or associated with such activities.

[2]These reports are the Consolidated Financial Statements for Bank Holding Companies (Y-9C). We conducted on-site visits for five of the six bank holding companies and conducted telephone interviews with the sixth.

activities of the firms. We gathered information on stand-alone proprietary trading, but determined that collecting information on other activities that might constitute proprietary trading was not feasible because the firms did not separately maintain records on such activities and because of the uncertainty over the types of activities that will be considered proprietary trading by the regulators upon completion of the required regulatory rulemaking. From this, we obtained data from all firms covering both their stand-alone proprietary and total trading activities, including quarterly data on profits, losses, Value-at Risk (VaR) estimates, and how often their losses exceeded their VaR estimates, for the time period from third quarter 2006 to fourth quarter 2010, or 18 quarters. The bank holding companies also provided us with data on those hedge and private equity funds that they believed would be restricted by the Dodd-Frank Wall Street Reform and Consumer Protection Act (the act). We asked firms to self-identify any activities involving acquiring or retaining any equity, partnership, or ownership interest in or sponsoring private equity funds, as defined in Section 619 of the act. They provided quarterly data on revenue from such activities, for the third quarter 2006 through the fourth quarter 2010, or 18 quarters. We also analyzed selected public filing information collected from the companies' 10K and 10Q filings and through SNL Financial, a company that aggregates public filing information.

The data provided by firms was self-reported, and while we did not verify every data element's accuracy, we took steps to help ensure that the data were complete and sufficiently reliable for our purposes. Specifically, we checked the data for such things as missing data, outliers, and for internal consistency. We also discussed the data provided with the companies and made follow-up requests for data and explanations as necessary to better ensure that we analyzed sufficiently complete and consistent information across all firms. In addition, we discussed with the Federal Reserve on-site examiners of the six bank holding companies the reliability of the information systems used to generate the data the companies reported to us, as well as the magnitude and ranges of that data provided. Finally, we reviewed information from each bank holding company about the reliability of their management information systems, which contained the computer-generated data they provided. While we determined that the data were sufficiently reliable for the purposes of this report, we present these data in our report as representations made to us by these six largest bank holding companies.

To describe how regulators oversee proprietary trading and hedge fund and private equity fund investment activity, we analyzed selected examination and other regulatory documents from and interviewed federal financial regulators. We reviewed our past reports that addressed risks at large institutions and how their regulators have overseen such risks. We also reviewed the comments submitted to the Financial Stability Oversight Council as part of its study required by Section 619 of the act. Finally, we interviewed representatives of the six largest bank holding companies to learn how they interacted with their regulators and discussed regulatory oversight with researchers, financial industry representatives, consumer advocacy organizations, and policy organizations.

We conducted this performance audit from August 2010 to July 2011 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.

Appendix II: Comments from the Board of Governors of the Federal Reserve System

BOARD OF GOVERNORS
OF THE
FEDERAL RESERVE SYSTEM
WASHINGTON, D. C. 20551

SCOTT G. ALVAREZ
GENERAL COUNSEL

June 28, 2011

Cody Goebel
Assistant Director
Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Mr. Goebel:

The Board of Governors of the Federal Reserve System appreciates the opportunity to respond to your draft study, GAO-11-529, in which you recommend that, as part of implementing rules under section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), the relevant regulatory agencies collect and review comprehensive information on the nature and volume of activities that could potentially be covered by section 619.

The Federal regulatory agencies charged with implementing section 619 are now in the process of developing proposed rules that are intended to further define covered activities and recordkeeping and reporting requirements. This proposal will give interested members of the public, including affected banking entities, an opportunity to comment on the definitions and scope of the rules proposed by the agencies.

We appreciate the GAO's support for the use of metrics in determining compliance with section 619 – an approach recommended by the Financial Stability Oversight Council (FSOC) in its initial report regarding implementation of section 619. As noted in the recommendations set forth in the study on the effective implementation of section 619 published in January 2011 by the FSOC, the collection and analysis of information about trading activities is an important part of understanding trading activities and identifying prohibited proprietary trading. For this and other reasons, we believe that some or all of the relevant agencies responsible for implementing and enforcing section 619 would be in the best position to undertake collection and review of information that is ultimately determined to be appropriate to ensure compliance and enforcement of section 619.

We appreciate the opportunity to comment and look forward to continued dialogue on this important topic.

Sincerely,

Appendix III: Comments from the Commodity Futures Trading Commission

U.S. COMMODITY FUTURES TRADING COMMISSION
Three Lafayette Centre
1155 21st Street, NW, Washington, DC 20581
Telephone: (202) 418-5120
Facsimile: (202) 418-5524
www.cftc.gov

Office of General Counsel

June 30, 2011

Cody Goebel
Assistant Director
Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Mr. Goebel:

I appreciate the opportunity to respond to your draft study, GAO-11-529, in which you recommend that, as part of implementing rules under section 619, "the Chairperson of the FSOC direct the Office of Financial Research, or work with the staffs of the CFTC, FDIC, Federal Reserve, OCC, and SEC, or both, to collect and review more comprehensive information on the nature and volume of activities that could potentially be covered by the Act."

The Commodity Futures Trading Commission staff agrees with the Financial Stability Oversight Council study recommendations, published in January 2011, on the effective implementation of section 619, that the collection and analysis of information about trading activities is an important part of understanding trading activities and identifying prohibited proprietary trading. As you know, CFTC staff, in consultation with other regulatory agencies, is now in the process of developing proposed rules that are intended to further define covered activities and recordkeeping and reporting requirements. As part of the rulemaking process, CFTC staff will consider the Government Accountability Office's recommendation.

I look forward to continued dialogue on this important topic.

Sincerely,

Dan M. Berkovitz
General Counsel

Appendix IV: Comments from the Department of the Treasury

DEPARTMENT OF THE TREASURY
WASHINGTON, D.C. 20220

June 28, 2011

Cody Goebel
Assistant Director
Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Mr. Goebel:

The Treasury Department and the Federal regulatory agencies charged with implementing Section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), commonly referred to as the Volcker Rule, appreciate the opportunity to respond to your draft study, GAO-11-529, in which you recommend that, as part of implementing rules under section 619, the relevant regulatory agencies should collect and review more comprehensive information on the nature and volume of activities that could potentially be covered by section 619.

As your study also notes, it is difficult currently to collect data on the precise activities that will be subject to the regulations promulgated under section 619, because the types and extent of those activities will not be certain until the rule is finalized. The agencies are now in the process of developing proposed rules that are intended to further define covered activities and recordkeeping and reporting requirements. The agencies will consider the GAO's recommendation as part of this rulemaking process, such as considering whether certain metrics or other data could be collected and reviewed during the conformance period.

As noted in the recommendations set forth in the study on the effective implementation of section 619 published in January 2011 by the Financial Stability Oversight Council, the collection and analysis of information about trading activities is an important part of understanding trading activities and identifying prohibited proprietary trading. For this and other reasons, we believe that some or all of the relevant agencies responsible for implementing and enforcing section 619 would be in the best position, subject to resource constraints, to undertake any collection and review of the information that we may ultimately determine is appropriate.

We appreciate the opportunity to comment and look forward to continued dialogue on this important topic.

Sincerely,

Jeffrey A. Goldstein

Appendix V: Comments from the Federal Deposit Insurance Corporation

FDIC

Federal Deposit Insurance Corporation
550 17th Street NW, Washington, D.C. 20429-9990

Division of Risk Management Supervision

June 29, 2011

Cody Goebel
Assistant Director
Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Mr. Goebel:

The Federal Deposit Insurance Corporation (FDIC) appreciates the opportunity to respond to your draft study, *Proprietary Trading: Regulators Will Need More Comprehensive Information to Fully Monitor Compliance with New Restrictions When Implemented* (GAO-11-529), in which you recommend that, as part of implementing rules under section 619, the relevant regulatory agencies should collect and review more comprehensive information on the nature and volume of activities that could potentially be covered by section 619.

As your study also notes, it is difficult currently to collect data on the precise activities that will be subject to the regulations promulgated under section 619, because the types and extent of those activities will not be certain until the rule is finalized. The agencies are now in the process of developing proposed rules that are intended to further define covered activities and recordkeeping and reporting requirements. The agencies will consider the GAO's recommendation as part of this rulemaking process, such as considering whether certain metrics or other data could be collected and reviewed during the conformance period.

As noted in the recommendations set forth in the study on the effective implementation of section 619 published in January 2011 by the Financial Stability Oversight Council, the collection and analysis of information about trading activities is an important part of understanding trading activities and identifying prohibited proprietary trading. For this and other reasons, we believe that some or all of the relevant agencies responsible for implementing and enforcing section 619 are in the best position to collect and review relevant information on the nature and volume of activities that could be covered by section 619.

We appreciate the opportunity to comment and look forward to continued dialogue on this important topic.

Sincerely,

Sandra L. Thompson
Director

Appendix VI: Comments from the Office of the Comptroller of the Currency

Comptroller of the Currency
Administrator of National Banks

Washington, DC 20219

June 28, 2011

Ms. Orice Williams Brown
Managing Director, Financial Markets and Community Investment
United States Government Accountability Office
Washington, DC 20548

Dear Ms. Brown:

The Office of the Comptroller of the Currency, one of the Federal regulatory agencies charged with implementing section 619 of the Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act), commonly referred to as the Volcker Rule, appreciates the opportunity to respond to your draft study, GAO-11-529, in which you recommend that, as part of implementing rules under section 619, the relevant regulatory agencies should collect and review more comprehensive information on the nature and volume of activities that could potentially be covered by section 619.

As your study also notes, it is difficult currently to collect data on the precise activities that will be subject to the regulations promulgated under section 619, because the types and extent of those activities will not be certain until the rule is finalized. The agencies are now in the process of developing proposed rules that are intended to further define covered activities and recordkeeping and reporting requirements. The agencies will consider the GAO's recommendation as part of this rulemaking process, in particular, in connection with whether certain metrics or other data could be collected and reviewed during the conformance period.

As noted in the recommendations set forth in the study on the effective implementation of section 619 published in January 2011 by the Financial Stability Oversight Council, the collection and analysis of information about trading activities is an important part of understanding trading activities and identifying prohibited proprietary trading. For this and other reasons, we believe that the relevant agencies responsible for implementing and enforcing section 619 would be in the best position to undertake any collection and review of the information that we may ultimately determine is appropriate.

We appreciate the opportunity to comment and look forward to continued dialogue on this important topic.

Sincerely,

John Walsh

John Walsh
Acting Comptroller of the Currency

Appendix VII: Comments from the Securities and Exchange Commission

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

DIVISION OF
TRADING AND MARKETS

June 30, 2011

Cody Goebel
Assistant Director
Financial Markets and Community Investment
U.S. Government Accountability Office
441 G Street, NW
Washington, D.C. 20548

Dear Mr. Goebel:

Commission staff appreciates the opportunity to respond to your draft study, GAO-11-529, in which you recommend that, as part of implementing rules under section 619, the "Chairperson of the FSOC direct the Office of Financial Research, or work with the staffs of the CFTC, FDIC, Federal Reserve, OCC, and SEC, or both, to collect and review more comprehensive information on the nature and volume of activities that could potentially be covered by the Act."

As your study notes, it is difficult currently to collect data on the precise activities that will be subject to the regulations promulgated under section 619, because the types and extent of those activities will not be certain until the rule is finalized. As you know, Commission staff, in consultation with the other relevant regulatory agencies, is currently in the process of developing proposed rules that are intended to further define covered activities and recordkeeping and reporting requirements. As part of this rulemaking process, Commission staff will consider the GAO's recommendations.

We appreciate the opportunity to comment and look forward to continued dialogue on this important topic.

Sincerely,

Robert Cook
Director
Division of Trading and Markets

Appendix VIII: GAO Contact and Staff Acknowledgments

GAO Contact

Orice Williams Brown, (202) 512-8678 or williamso@gao.gov.

Staff Acknowledgments

In addition to the contact named above, Cody Goebel, Assistant Director; Rudy Chatlos; Randy Fasnacht; James Lager; Thomas McCool; Jon Menaster; Marc Molino; David Rodriguez; Paul Thompson; and Winnie Tsen made key contributions to this report.

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