



CLAYTON ROSE

DANIEL B. BERGSTRESSER

DAVID LANE

The Tip of the Iceberg: JP Morgan Chase and Bear Stearns (A)

There is one financial commandment that cannot be violated: Do not borrow short to invest long.

—Jamie Dimon, JP Morgan Chase & Co. CEO¹

You wouldn't know we're a well-run bank if you attended a meeting here. We're always asking, "What went wrong? What can go wrong?"

—Michael Cavanagh, JP Morgan Chase & Co. CFO

Bear Stearns & Co. (Bear), the fifth-largest U.S. investment bank as 2008 began, burned through nearly all of its \$18 billion in cash reserves during the week of March 10, 2008. Bear survived to the close of business on Friday, March 14 only because of that morning's groundbreaking announcement: the Federal Reserve Bank of New York (N.Y. Fed), using JP Morgan Chase & Co. (JPMC) as a conduit, would provide Bear with secured financing for a period of up to 28 days. Despite this unprecedented provision of liquidity support from the Federal Reserve System (Fed) to an investment bank, it was insufficient to reverse the decline in Bear's condition, and on Friday evening, Bear CEO Alan Schwartz learned Bear's access to the N.Y. Fed's new lending facility would last but one day.²

N.Y. Fed President Timothy Geithner, Fed Chairman Benjamin Bernanke, and U.S. Treasury Secretary Henry Paulson were intent on limiting the impact of Bear's problems on the wider financial system. James "Jamie" Dimon, JPMC's Chairman and CEO, was in frequent contact with these regulators over the weekend of March 14-16, negotiating possible scenarios for Bear's rescue. Without a deal, the investment bank would be forced to seek bankruptcy protection when markets opened on Monday.

Late on Sunday afternoon, March 16, Bear's board accepted JPMC's offer to purchase Bear for \$2 per share, an offer that would not have been made without significant government assistance. There was hope that the Bear rescue would help avert the far-reaching spread of damage into the larger financial world that many policymakers viewed as likely to follow the failure of a major investment bank.

Senior Lecturer Clayton Rose, Professor Daniel B. Bergstresser, and Global Research Group Senior Researcher David Lane prepared this case. The authors are grateful to Eliot Sherman, Global Research Group, for his contributions. HBS cases are developed solely as the basis for class discussion. Cases are not intended to serve as endorsements, sources of primary data, or illustrations of effective or ineffective management.

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Bear, Stearns & Co.

Founded in 1923, Bear had cultivated a reputation as the scrappy underdog to Wall Street's white-shoe investment banks. Bear sought employees who were what they termed "PSD," for "poor, smart, and desperate to be rich."³ One commentator characterized Bear employees as "tough, smart street-fighters who would just as soon pistol-whip you on a trade as look at you."⁴ Over the years, Bear's business practices attracted regulatory and press scrutiny. Until federal regulators intervened in 1996, for example, Bear earned fees clearing stock trades for "boiler room" brokerages,^a including A.R. Baron and Stratton Oakmont.⁵ Bear eventually paid \$38.5 million to settle charges that it contributed to A.R. Baron's securities fraud.⁶ In 1998, despite being the clearing agent of troubled hedge fund Long Term Capital Management (LTCM), Bear angered many on Wall Street when it refused to participate in LTCM's Fed-encouraged \$3.6 billion bailout.⁷ About a dozen other Wall Street companies contributed, allowing LTCM to liquidate its positions in a relatively orderly fashion and preventing what could have been a significant crisis.⁸

Despite these problems, in 2007 Bear placed second in the securities industry, behind Lehman Brothers and ahead of Goldman Sachs, on *Fortune* magazine's list of "The Most Admired Companies." In the survey, Bear ranked highly for innovation, quality of management, and financial soundness, among other criteria.⁹

The five members of Bear's Executive Committee,^b the group that oversaw Bear's day-to-day management, had led the firm since 2001 and had worked together for decades. Chairman and CEO James Cayne, for example, had joined the firm in 1969. Bear's partnership-like culture encouraged employees to hold a significant portion of the stock they received as part of their compensation until they left the firm.¹⁰ At the end of 2007, Cayne owned 6.4 million shares, representing about 5% of the company, and collectively the Committee members controlled about 9% of Bear's shares. The size of the Committee's annual bonus pool was determined by performance measured against Bear's after-tax return on equity.¹¹

Bear had three main operating businesses: 1) Capital Markets, 2) Global Clearing Services, and 3) Wealth Management. The Capital Markets business included brokerage services, market-making, and proprietary trading in both equities and fixed income. In addition, this business included investment banking services such as securities issuance and advice on mergers and acquisitions. Global Clearing Services included Bear's well-regarded prime brokerage business. As a prime broker, Bear provided trade execution and securities clearing, custody, lending, and financing to hedge funds and broker-dealers. Wealth Management included Bear's Private Client Services group, which served high-net worth individuals, and Bear Stearns Asset Management (BSAM), which managed hedge funds and other investment vehicles.

Bear's economic engine was its fixed income business. In 2005 and 2006 respectively, Bear's fixed income business contributed \$3.0 billion and \$3.62 billion in revenues, compared to \$1.04 billion and \$1.33 billion from investment banking, \$838 million and \$1.38 billion from equities, \$372 million and \$523 million from asset management, and \$261 million and \$234 million from prime brokerage. Mortgages and mortgage-backed securities comprised most of the fixed income business. At year end 2006, mortgage related securities were the largest part of Bear's balance sheet, representing about 31% of the securities it owned.¹² Bear was among the largest players in the mortgage market, and was

^a Brokerage firms that operated over the telephone using high pressure, coercive tactics, which are often illegal, to induce individuals to buy stocks.

^b At the start of 2008, these were Chairman and CEO James Cayne, Co-Presidents Warren Spector and Alan Schwartz, Chief Financial Officer Samuel Molinaro, and former Chairman and CEO Alan Greenberg.

the leading underwriter of U.S. mortgage-backed securities over the 2004–2007 period (though Lehman Brothers edged ahead of Bear in 2005; see **Exhibit 1**). Bear also had a substantial presence in the subprime mortgage market,^c providing lines of credit to many subprime mortgage originators, including New Century Financial, which collapsed in March 2007.

To have access to the “raw material” for securitization transactions, Bear owned EMC Mortgage, one of the most aggressive mortgage originators in the market.¹³ This in itself was not unusual; by the peak of the housing boom of the mid 2000s other investment and commercial banks had acquired mortgage originators as a way to gain entry into the then-lucrative subprime loan business. In 2006, for example, Merrill Lynch acquired mortgage originator First Franklin for \$1.3 billion, Morgan Stanley paid \$700 million for Saxon Capital, Deutsche Bank purchased Mortgage IT for \$429 million and Barclays Capital acquired HomEq Servicing from Wachovia for almost \$500 million.¹⁴ Somewhat in contrast to its highly regarded risk management skills under former CEO Alan Greenberg, however, Bear’s loan underwriting criteria appeared lax.¹⁵ By February 2008, for example, 15% of the so-called “Alt-A” mortgages underwritten by Bear were delinquent by over two months or already in foreclosure, nearly double the industry average.¹⁶

At fiscal year-end (November 30) 2007, Bear reported book equity of \$11.8 billion and assets of \$395 billion, of which \$138 billion were the securities it owned (at their then estimated fair value). The firm’s market capitalization was \$11.6 billion. (See Bear’s balance sheet in **Exhibit 2**; **Exhibit 3** shows key commitments and guarantees by Bear that were not included on the balance sheet.) After earning \$2.1 billion in 2006, Bear had its first quarterly loss ever in the fourth quarter, and generated just \$233 million in earnings in 2007, much of that due to writing off \$1.9 billion on mortgage related securities (see **Exhibit 4**).

As an investment bank, Bear’s primary regulator was the Securities and Exchange Commission (SEC). Unlike commercial banks Bear did not have access to the Federal Reserve discount window and was solely dependent upon the market for its liquidity and funding. (See the **Appendix** for an overview of relevant commercial and investment bank regulation and discussion of the discount window.) Bear’s activities were financed with a mix of long term debt, equity, and financing collateralized with securities from Bear’s inventory.

Bear’s trading business required the investment bank to constantly hold an inventory of securities; these securities were used as collateral for short term borrowing agreements known as repurchase agreements (repos). Repos were formally structured as a sale of securities coupled with an agreement to repurchase equivalent securities at a higher price at a future date, and almost always had a short term to maturity, most often one day (“overnight repo”).

Repo market lenders were typically institutions with excess cash, often money market funds and corporations seeking to earn a return on their excess liquidity. While most repos were overnight, repeated interaction among the relatively small number of market participants had created a relatively stable environment in which these overnight agreements were typically renewed (“rolled over”) at the market rate each day. This market stability reflected the fact that a repo lender enjoyed protection based both on the credit-worthiness of the borrower and on the quality of the underlying assets that secured the loan. These assets included “risk-free” assets such as U.S. Treasury securities,

^c The mortgage market was segmented into three primary categories: prime, Alt-A, and subprime. Subprime borrowers typically suffered from weak credit, income, or asset characteristics and did not meet the guidelines for lending established by government-sponsored entities (GSE) Fannie Mae and Freddie Mac. Alt-A borrowers typically had adequate creditworthiness, income, or assets, but did not qualify under GSE guidelines as prime borrowers for reasons including reduced income and asset documentation, high debt to income ratios, blemished credit history, or high loan to value ratios. Prime borrowers met GSE guidelines including a credit score over 620, a debt to income ratio of 45% or less, and a down payment of 10% or more.

as well as other high-quality assets such as mortgage-backed securities or corporate bonds. At year-end 2007, Bear had \$102 billion worth of repo borrowings on its balance sheet, its largest balance sheet liability, and \$69 billion of long term debt. (Exhibit 5 shows selected money market mutual fund lending through the repo market to Bear; Exhibit 6 shows Goldman Sachs-sponsored money market funds lending through the repo market to major broker-dealers.)

During the market disruptions of 2007, broker-dealers' financing and liquidity arrangements attracted an increasing level of attention from analysts. The credit ratings agency Standard & Poor's published a report on November 9, 2007 noting these recent market pressures: "Not since 1998 have the major U.S. broker-dealers been as liquidity-challenged as they were in third-quarter 2007, when disruptions in the U.S. subprime space and the spillover into other markets contributed to a general and widespread market correction." The report, however, concluded that, "based on our liquidity analysis, we expect all the firms to continue to demonstrate funding and liquidity resilience in the current market environment."¹⁷ Exhibit 7 compares the liquidity position of leading broker-dealers.

JP Morgan Chase

JP Morgan Chase was the product of multiple bank mergers. These mergers had combined Manufacturers Hanover, Chemical Bank, Chase Manhattan, J.P. Morgan & Co, Bank One, and many smaller institutions, and created a firm with operations spanning commercial and investment banking. At year end 2007, JPMC had a market capitalization of \$146.9 billion, assets of \$1.6 trillion, operations in over 60 countries, and 180,000 employees.¹⁸ JPMC was substantially larger than Bear and had much more diversified operations, both by product and by geography. In addition to global investment banking and asset management, JPMC was a leader in corporate lending, had a significant retail banking operation, a major credit card business, a leading private bank, and was a leading provider of services such as securities custody.

Dimon was in his second year as CEO at JPMC. He had risen on Wall Street as the protégé of Citigroup's former CEO Sanford Weill. In 1998, after many years together completing a string of successful acquisitions, including creating Citigroup from a groundbreaking merger between Citibank and Travelers Insurance, Weill forced Dimon out as president of the company.¹⁹ In 2000, Dimon became CEO of the Chicago-based Bank One, a company known for its strong consumer banking business but poor management and infrastructure.²⁰ Bank One had nearly \$300 billion in assets and retail clients in seven million households.²¹ Dimon launched a rapid turnaround, strengthened the balance sheet, and cut inefficient operations, returning Bank One to profitability in his first full year as CEO.²²

In 2004, JPMC acquired Bank One for \$58 billion. Having Dimon lead the new firm was an important rationale for the deal.²³ While the deal formally would make Dimon JPMC's CEO in 2006,²⁴ a senior JPMC executive said that then-chief executive Bill Harrison "gave Jamie the authority to manage things on a day to day basis," and Dimon began to shape the new firm almost immediately. Dimon and his team began the merger integration by slashing costs, improving business processes, and investing in infrastructure and technology. Dimon also imposed his management culture on the new, much larger, firm.

Dimon could be a demanding boss: "One (senior) guy heard me challenging him to do better and came to me saying, 'I need to know that you trust me.' I replied, 'You don't get it! I am not going to lay off of you. You need to earn my trust.'" Dimon required his managers to develop strategic plans that led to financial performance on par with the best competitors in each line of business. He also encouraged "no holds barred" debate throughout the organization, and particularly among his senior

team. Bill Winters, the co-head of the Investment Bank said, "Jamie can blow his top, and you can both take it personally, but we'll be back doing business in five minutes."

Dimon required that the entire firm use the same set of financial reports and that they properly reflect the economics of each business, in terms of revenues, direct costs, and shared and allocated expenses. "It amazes me how often information at other firms is not the same the next level down. There's no secret CEO's report here. It's the same information that everyone else has." Each month ended with the production of the Executive Management Report (EMR), a thick compilation of financial results, risk metrics, market share data, and "to do" items that was prepared at both the firm level and for each line of business. Dimon, CFO Mike Cavanagh, and strategy head Jay Mandelbaum then met with each business head to review their results. Cavanagh described these meetings: "In business review after business review, you don't rely on PowerPoint presentations, you jump to talk about what matters, what's on your mind. This is self-reinforcing behavior, and leads to an ethos in which we begin with a 'here's where we are in terms of performance' and move quickly to 'now here's what's wrong.'" These business reviews took place several levels down in the organization, as well as with the board of directors. Jes Staley, head of Asset Management and Private Banking, described the process as it related to management's relationship with the board: "[Dimon] puts the CEOs of the businesses in front of the board all the time. What's typical is a 15 minute presentation followed by 30 minutes of Q&A. At the last meeting I spent 90 minutes with the audit committee and Jamie wasn't in attendance. Presentations from decks is discouraged; extemporaneous talk generates greater honesty."

The Operating Committee, the group that reported to Dimon, met weekly for several hours, once a month for an entire day, and annually for four days somewhere off site. These meetings were famous for their sometimes heated discussions among the members of the Committee, said Investment Bank co-head Steven Black, "the yelling and screaming, and wagging fingers in the face." Dimon's goal was to get at "nothing but the truth," and foster an environment of "active honesty" where leaders admitted their mistakes to their colleagues—"I know I told you that, but I was wrong." Dimon tolerated failure, at least of a certain kind. He said, "I expect people to make mistakes. You want them to make mistakes; otherwise they are not trying hard enough." However, he differentiated between "good mistakes," where the issue was thought through and the right people were brought into the process, and "bad mistakes" that resulted from "what I assumed."

About one third of the 16 member Operating Committee was comprised of individuals who had worked for Dimon for decades, about a third came from legacy organizations, and about a third joined JPMC after Dimon took over. The Committee's annual bonuses were determined by evaluating a mixture of quantitative and qualitative factors (see **Exhibit 8**), and the heads of businesses units were paid both on the performance of their line of business and on the company as a whole. Half of their annual bonus was taken in stock that vested over three years. Operating Committee members were required to hold 75% of the shares from vested stock and exercised options until they left the firm. Dimon committed to holding 100% of his shares.

There was concern among the senior team that because of Dimon's compelling personal history and his blunt style there was a growing perception of JPMC as a "one man bank." They worried that this was an unhealthy view of the firm. Winters said, "If Jamie were to leave, the stock would drop 20%." Black added, "The myth of Jamie is the biggest misconception outside of JP Morgan Chase He's as worried about it as anyone."

A "Fortress Balance Sheet"

Of JPMC's \$1.4 trillion in financial liabilities at year end 2007, \$741 billion were in the form of deposits, a very stable source of funding (see **Exhibit 9**). Another \$154 billion in financing came from

a combination of repos and borrowings in the “federal funds” market, a market in which commercial banks lent to each other on an overnight basis.^d Because they were more heavily regulated, banks and bank holding companies had higher levels of capital and lower leverage than investment banks. For example, at year-end 2007, JPMC had a balance sheet that was 12.7 times leveraged, while Citigroup was 19.2 times, Bear 33.5 times, and Goldman Sachs was 26.2 times leveraged (see **Exhibit 10** for a snapshot, and **Exhibit 11** for investment bank trends over time). Dimon and his team focused on implementing a “fortress balance sheet” strategy, with liquidity and capital levels that exceeded not only regulatory requirements but also those maintained by major competitors. Cavanagh described the liquidity strategy as having four basic components: large amounts of cash capital, term financing (to match assets with liabilities), stress testing to understand where improbable but very large losses could appear, and liquidity reserves for assets that became illiquid. JPMC normally held about 12 months of cash on the balance sheet. In late 2007, stress test results caused JPMC to increase its cash liquidity to almost two years. From the beginning, Dimon had required that each line of business have enough capital to qualify for an “A” credit rating on a standalone basis. Reserves against loans and other assets were built “portfolio by portfolio” when possible, rather than at an aggregate business unit level. JPMC managers also paid attention to the quality of their capital base, using more common equity rather than preferred stock. Another key aspect of the “fortress balance sheet” was the use of conservative accounting within the rules. For example, JPMC sought when possible to defer recognizing revenues until they were realized. Cavanagh estimated that this “fortress balance sheet” approach cost JPMC five percentage points on its ROE when compared to the strategies adopted by competitors.

Prior the merger with Bank One, JPMC had revamped its own risk management processes. Initially they focused on substantially reducing the absolute amount of “contingent calls” on their liquidity—agreements with clients that required JPMC to provide funding at a client’s discretion and for which they were paid very little for the option they were providing. This focus on reducing JPMC’s exposure to contingent demands for liquidity came because of JPMC’s own bad experience during the 2000-2002 recession. In this earlier downturn JP Morgan Chase, after a ratings downgrade, had to provide liquidity to an Asset-Backed Commercial Paper (ABCP) off balance sheet vehicle, at a time when the firm was working hard to maintain its liquidity.²⁵

In addition to having hard limits on the aggregate level of contingent calls on its liquidity, JPMC’s management sought to increase the price it charged to customers for the use of its balance sheet that it provided to its clients. One result of this process was that JPMC avoided investing in or financing for structured investment vehicles (SIVs), “the pools of mortgages, credit card loans, and other debt created by banks but not carried on their books.”²⁶ SIVs, while considered off-balance-sheet, typically had contingent features that would bring them back onto the sponsor’s or liquidity provider’s balance sheet if ABCP markets dried up.

JPMC’s management was not opposed, in principle, to providing these vehicles with credit (within the more general absolute liquidity constraints described above), but felt that the market price that other financial institutions were charging for backstop financing for SIVs and similar structures in the run-up to the 2007-2008 meltdown was insufficient compensation for the risks that JPMC perceived in this market.

With the merger between Bank One and JP Morgan Chase came an SIV that Bank One owned, and agreements to fund several other SIVs. Winters described the assessment the team made of this development: “We asked ourselves, ‘Now that we are in the SIV business, does it make sense?’ We analyzed up, down, and sideways and couldn’t find a way to earn a profit after capital charges, and

^d The Federal Funds rate was a key tool of the Fed’s monetary policy.

we knew we were taking reputational risk, for which we were not being paid anything. So we auctioned off the SIV owned by Bank One.” JPMC also exited most of the agreements to provide backstop funding to these entities. Winters added, “We certainly did not anticipate what would happen to SIVs down the road. That these things were toxic did not occur to us.” Other financial institutions were not so fortunate: Citigroup ended up putting \$58 billion in off balance sheet SIV exposure onto its books; HSBC added \$35 billion in SIV exposure to its balance sheet.²⁷

JPMC also avoided some parts of the burgeoning business in collateralized debt obligations (CDOs), “vehicles that sold bonds backed by pools of subprime mortgage-backed securities.”²⁸ In late 2006, JPMC moved to sell off \$12 billion in mortgage-backed securities that it had originated and significantly curtailed its market making in subprime paper.²⁹ Black attributed the move to exit the subprime business to an emerging view from across the firm: “We got subprime mostly right because of discipline around the company risk meetings. Individual pieces of [JPMC] saw things happening in their slice of the pie that all added up...”

Nonetheless, JPMC retained significant exposure to the mortgage markets more generally, both through its fixed income activities in trading mortgage-related securities, and through its retail banking. At the end of 2007, JPMC had \$63.1 billion of mortgage securities on its books,³⁰ \$94.8 billion of mortgages outstanding, and rising delinquencies. Beginning in late 2007, JPMC began to curtail the origination of second mortgages based on a view that the combined loan-to-value (LTV) ratio for first and second mortgages was getting too high relative to home values. At the same time, however, JPMC began to aggressively increase the origination of “jumbo” first mortgages, many in Florida and California, that were added to the balance sheet. Compared to the first quarter of 2007, mortgage loan origination increased 30% in the first quarter of 2008, to \$47 billion, while JPMC’s allowance for loan losses in the mortgage business increased by 56%.

Looking back, Dimon noted that, “Our biggest mistake was assuming that home prices would go up for a decade without losses. We loosened up our standards. Once prices stopped rising, losses mounted. We need to write a letter to the next generation saying that there’s a reason why we loan only 80% LTV on a home.” In addition, by the first quarter of 2008, Morgan’s Investment Bank, which had struggled to generate a profit in the last two quarters of 2007, turned in a loss on the back of write-downs in mortgage securities and leveraged loans. With respect to the leveraged loan business, Black described what happened: “We were the market leaders, but we let the up-and-comers and the ‘wannabes’ start to dictate terms. We started to eliminate protections on our own balance sheet because that’s what others were willing to do. In fact, the profits were not worth the risks.”

Looking Forward

When the merger integration between JPMC and Bank One neared completion, JPMC began to consider acquisitions. This process would typically start at the annual Operating Committee offsite, where members sorted through the “transformational implications of particular potential acquisitions.” Dimon’s criteria were: “business logic—does it fit and does it matter in terms of size, the price, and our ability to execute. Execution is planned in advance—who is going to run what, whose systems we would use, whose back office, what can go wrong.” Mandelbaum added that, “The ability to execute the merger is as important as cultural fit, and sometimes more so.” Due diligence on particular acquisitions was carried out by those who would be responsible for managing the integrated business. The list of potential opportunities developed at the offsite was discussed with the board, additional work was done on some ideas, and the ideas were reviewed throughout the year at JPMC’s monthly business review sessions. The firm was focused on execution beyond acquisitions. Winters observed that, “Jamie and his team are very, very, very focused on execution. We’ll focus on execution until the market is killed, and then we’ll pick up the fallen nuts. That’s a

good strategy and it works. However, we could stand to think more strategically about how to make things happen rather than just react.”

In his letter to shareholders early in 2008, Dimon noted that, “JP Morgan Chase is now a top-ranked player in virtually every major investment banking product. We are proud of this progress and pleased to see it noted in several independent client surveys and reports.”³¹ The successful integration of Bank One had resulted not only in market leadership positions in many areas of JPMC’s business, but significant growth in earnings, with operating income rising from \$6.3 billion to \$15.4 billion between 2004 and 2007. With capital, liquidity, and market leadership positions across many product areas, JPMC seemed well positioned entering the crisis in financial markets that emerged in 2007 and deepened as 2008 progressed. JPMC had already used its strong balance sheet to purchase assets from ailing competitors. In January 2008, JPMC had purchased over \$4.5 billion worth of loans from the distressed British home mortgage lender Northern Rock.³² Earlier, in summer 2007, as Northern Rock weakened, JPMC had offered a rescue proposal. Northern Rock rejected JPMC’s proposal as too onerous, and the British government nationalized the bank on February 17, 2008.³³

Beginning in January 2008, JPMC entered into discussions to acquire Washington Mutual (“WaMu”), a savings and loan association with 2,200 branches and about \$138 billion in deposits. WaMu had a well-regarded retail banking franchise,³⁴ and the purchase would give JPMC access to key new retail banking markets, most importantly in California and Florida.³⁵ As Bear was sliding into distress in March, JPMC had a large team at WaMu’s Seattle headquarters performing due diligence. WaMu had significant exposure to the subprime market, however, and WaMu’s \$1.1 billion loss in the first quarter of 2008 was equivalent to approximately one-sixth of its market capitalization at the time.

Financial Market Stresses Emerge

New financial market stresses, largely rooted in the U.S. housing market, emerged in 2007 and intensified in early 2008. Because home mortgages and home-equity loans were frequently packaged and sold in securities that were in turn sold to a wide variety of investors, pain from the rapid deterioration of housing prices was widely felt and created a heightened sense of anxiety across the financial markets.

U.S. housing prices had appreciated rapidly between 1998 and 2006 (see **Exhibit 12**). This occurred alongside easier access to mortgage finance, especially among less credit-worthy borrowers. The origination of subprime mortgage loans grew from \$190 billion in 2001 to \$625 billion in 2005.³⁶

Of the subprime loans issued in 2005, 72% were considered “hybrid” adjustable-rate mortgages (ARM), for which the introductory rate was often lower than that which a prime borrower could receive. After a “teaser” period of up to three years, however, loan rates reset regularly. By late 2007, these resets increased borrowers’ monthly payments by at least 30% relative to what they paid when the teaser rates were in effect, making it difficult or impossible for some borrowers to meet the monthly principal and interest payments.³⁷ By January 2008, 21% of subprime ARMs were 90-days delinquent or in foreclosure proceedings.³⁸ Although the higher interest rates built into those mortgages reflected compensation for a higher probability of default, the extent and speed of the increase in mortgage default and delinquency rates took many market participants by surprise.

Wall Street became deeply involved in the mortgage business beginning in the 1980s, when Salomon Brothers and First Boston, two leading investment banks of the day, began to buy and repackage mortgages into mortgage-related securities.³⁹ By 2007, mortgage-backed securities had

evolved into increasingly complex forms, including Collateralized Mortgage Obligations (CMOs) and CDOs. These securities were created when mortgage-backed securities were pooled into a special purpose company, and “tranches” (or slices) of obligations were created that were backed by the mortgages. Each tranche was designed to appeal to a different type of investor. The most senior tranche had the first call on the pool’s cash flows, was rated AAA (the highest credit rating available), and carried the lowest risk and return. Progressively lower rated, higher return, and higher risk tranches were also created, including an equity tranche. The risk in each of the tranches and the rating that each obtained from the rating agencies was determined in part by the assumed default rate of the underlying mortgages, which was based on the historical experience of similar pools of underlying assets.

While there was substantial local variation, aggregate U.S. housing prices peaked in late 2005. By 2007 it was clear that default and delinquency rates on recently originated subprime mortgages were rising quickly. Rising mortgage default rates reduced the value of mortgage-backed securities. The credit rating agencies Fitch, Moody’s, and Standard & Poor’s began to downgrade the credit ratings of numerous securities with mortgage-related exposures. A virtually unprecedented move, these downgrades even included securities that had previously been rated AAA. As downgrades and losses spread to classes of securities previously viewed as extremely safe, many institutional investors found themselves unwilling holders of securities with newly evident risks.

Even in good times, mortgage-backed securities were often illiquid relative to the more liquid markets for U.S. Treasury securities. As default rates rose and U.S. macroeconomic conditions now deteriorated, however, the absence of a liquid trading market for these securities forced investors to seek bids for their securities from the commercial and investment banks that initially created and sold them. Wary of repurchasing too much of this paper, these banks began to mark down the prices at which they would buy them, and to reduce the quantity of bonds they would buy at a given price. This only increased the downward pressure on bond prices, creating a “vicious circle” among the holders of mortgage-backed securities: in addition to the uncertainty in fundamental value created by rising default rates, the reduction in prices by the bond dealers created even greater urgency on the part of investors to sell these securities, which forced the dealers to mark prices down even further. Throughout the process dealers such as Bear accumulated larger and larger inventories of these securities, which were valued at ever lower prices, both because of the effect of fundamental economic forces and the pressure from investor clients to exit their positions.

By early 2008 financial services firms had announced billions of dollars worth of write downs related to their exposure to subprime mortgages. In mid-January, total write-downs from the housing crisis surpassed \$100 billion, with some predicting that another \$100 billion in write-downs was likely to be forthcoming.⁴⁰ The turmoil also cost several top CEOs their jobs, including Citigroup’s Charles Prince and Merrill Lynch’s Stanley O’Neal.

Systemic Risk

As Bear and other financial services firms came under significant pressure in 2007 and 2008, they did so against a backdrop of high interconnectedness. The issue facing the market was not simply that financial firms were thought to be “too big to fail;” rather they were considered “too interconnected to fail.” These firms were reliant on one another in a variety of ways that were essential to the smooth running of the financial system.

Derivative transactions were a source of significant interconnection among financial services firms. Because derivative contracts were often bilateral contracts written between individual firms, these transactions exposed commercial and investment banks (as well as insurance companies and

others) active in the derivatives markets to credit risk—the risk that a firm’s counterparty^e to a transaction would be unable to meet its obligations. This risk could be managed through limits on any one particular counterparty, through requirements for collateral on derivative trades, and by limiting the set of derivative counterparties to only the most creditworthy. Nonetheless, risks remained. If a financial services firm engaged in numerous derivatives transactions failed, its counterparties would lose the hedging and risk protection created by their derivative transactions with the now-failed firm. The scramble to replace these now-missing hedges could possibly induce substantial disruptions in prices and liquidity across markets.

Prime brokerage constituted another source of interconnection among financial services firms. Bear and other prime brokers provided financing to thousands of hedge funds and held these funds’ securities for safekeeping. While these securities were the property of the hedge funds rather than the prime broker, a bankruptcy at a major prime broker could cause considerable disruption, forcing the hedge funds to limit operations, liquidate holdings at distressed prices, suspend transactions, and work through the courts to gain access to their securities.

While no one knew what would happen if Bear were to fail, the prevailing view was that the effects would be both far-reaching and painful, not simply for the markets but for the economy as well. As Geithner put it:

If this [financial crisis] continues unabated, the result would be a greater probability of widespread insolvencies, severe and protracted damage to the financial system and, ultimately, to the economy as a whole. This is not theoretical risk, and it is not something that the market can solve on its own. It carries the risk of significant damage to economic activity. Absent a forceful policy response, the consequences would be lower incomes for working families, higher borrowing costs for housing, education, and the expenses of everyday life, lower value of retirement savings, and rising unemployment.⁴¹

Notwithstanding the possible effects of an extended crisis, many were concerned about the potential “moral hazard” if Bear was saved from insolvency—the notion that the precedent set by bailing out one high risk player would encourage further reckless risk taking by others in the belief that they too would not be allowed to fail. Critics believed the Fed was overstepping its mandate in attempting to orchestrate a deal. As one such critic asked, “Why not set an example of Bear Stearns, the guys who have this record of dog-eat-dog, we’re brass knuckles, we’re tough?”⁴²

The collapse of LTCM in September 1998 illustrated a hedge fund failure with potential systemic implications. Author Roger Lowenstein, in his analysis of some lessons from the Fed sponsored bail-out of LTCM, suggested:

At some point the selling would have stopped. At some point buyers would have returned and markets would have stabilized. Other banks could have filed (for bankruptcy), though that was an outside chance at best.

Permitting such losses to occur is what deters most other people at institutions from taking imprudent risks. Now especially, after a decade of prosperity and buoyant financial markets, a reminder that foolishness carries a price would be no bad thing. Will investors in the next problem-child-to-be, having been lulled by the soft landing engineered for Long-Term, be counting on the Fed, too? On balance, the Fed’s decision to get involved—though

^e A counterparty was any entity with which a firm had negotiated a contract.

understandable given the panicky conditions of September 1998—regrettably squandered a choice opportunity to send the markets a needed dose of discipline.⁴³

At the time, J.P. Morgan & Co^f estimated that if LTCM had failed, its losses would have been approximately \$200 million. The bailout packages organized by the banks to stave off an LTCM bankruptcy and allow for its orderly unwind totaled \$3.6 billion.

Bear's Hedge Fund Crisis

Bear was exposed to the deteriorating mortgage market through a variety of channels. One channel became evident with the July 2007 implosion of two large hedge funds managed by Bear Stearns Asset Management.⁴⁴ Both the High-Grade Structured Credit Strategies Fund, launched in October 2003, and the High-Grade Structured Credit Strategies Enhanced Leverage Fund, launched in August 2006, had invested heavily in illiquid CDOs tied to mortgage-backed securities. These funds had magnified their exposure to mortgage markets through the use of leverage; the fund managers were able to purchase as much as \$60 worth of CDOs for each dollar of investor money.⁴⁵ Though the assets that were purchased had long maturities and were illiquid, the funds included substantial borrowing at shorter maturities.⁴⁶

In March 2007, the funds—which had earned outsized returns during the housing boom—suffered their first monthly losses.⁴⁷ In May, Bear attempted to rid itself of many of the troubled mortgage securities that the funds held by listing a new company called Everquest Financial that would purchase them. With an IPO of Everquest, Bear would have been able to transfer some of this mortgage-related exposure to the investors, retail and otherwise, who purchased shares of Everquest.

Investor appetite for Everquest was limited and the IPO was canceled.⁴⁸ While the success of such an endeavor could have temporarily sustained the Bear funds, its failure had the opposite effect. The funds' investors, spooked by the IPO's failure and by the funds' rapidly accelerating losses, began to ask for their money back.⁴⁹ Investors were also concerned about the reliability of Bear reports on the funds' performance.

The funds began selling assets to meet investor demands, further exacerbating downward pressure on value of their holdings. Collapse came quickly. On June 7, Bear halted investor redemptions for the Enhanced Leverage Fund. On June 15, Merrill Lynch, which had lent money to the funds secured by some of the funds' assets, moved to seize and sell its collateral to cover its own position. On June 22, Bear loaned the less-leveraged original fund \$1.6 billion in an attempt to prop it up, only to halt redemptions on that fund as well eight days later.⁵⁰ By the end of July, both funds had filed for bankruptcy; fund managers informed investors that their holdings were “virtually worthless.”⁵¹ Lawsuits and arbitration claims followed, beginning in summer 2007.

On the day after these investors were informed of the extent of their losses, James Cayne, Bear's chairman and CEO, left for a ten-day bridge tournament in Nashville, Tennessee. During this tournament, Cayne stayed in regular touch with Bear's executive committee by telephone.⁵² Among the other competitors in this tournament was Warren Spector, Bear's co-president, whose area of oversight included the firm's asset management operations.

^f A predecessor firm of JP Morgan Chase.

A Changing of the Guard

Spector was forced to resign on August 1.⁵³ Alan Schwartz, who had served as Bear's co-president and co-chief operating officer with Spector since 2001, was made the firm's sole president.⁵⁴ Schwartz was an experienced and respected investment banker, and had worked at Bear for over 30 years. Although Schwartz, as an investment banker, was less familiar than Spector with the bond and mortgage businesses that accounted for the vast majority of Bear's revenue, he did not hire a replacement for Spector, electing instead to keep close tabs on Bear's bond traders himself.⁵⁵

Within the bond business, which used Bear's own capital both to facilitate client trades and trades for its own account, key lieutenants were in fierce disagreement over how best to manage the extent of Bear's mortgage related securities holdings. Bear's head of stock sales and trading, as well as the company's head of proprietary trading, argued that the head of Bear's mortgage division needed to reduce his holdings.⁵⁶ "Cut the positions, and we'll live to play another day," said the head of proprietary trading.⁵⁷ Schwartz, however, was reluctant to unload billions of dollars worth of bonds at prices that seemed to be unreasonably low and possibly not reflective of their true value.⁵⁸

While Bear had the opportunity to take action in autumn 2007—by selling itself, finding a strategic investor, extending the maturity of its liabilities, recapitalizing, or deleveraging—none of these steps were taken.

On December 20, Bear announced its fourth quarter results: an \$850 million loss, the first quarterly loss in the company's history, driven by a \$1.5 billion loss in the bond division, traditionally the company's strongest unit. By this time, there was a growing drumbeat of opposition to Cayne's leadership among top Bear executives and one of the company's largest shareholders.⁵⁹ On January 8, 2008, Cayne resigned his position as CEO, ceding the role to Schwartz. Cayne remained chairman of the board of directors.

As January opened, Bear's stock price stood at \$88.35 per share, having lost almost 50% of its value from its peak the previous January. January 2008 saw more volatility, with continuing deterioration in the U.S. housing market

One measure of the sustained concern in financial markets was the spread between the yield on short term U.S. Treasury bills and the yield on Eurodollar deposits—short term unsecured loans between major banks. This Treasury-Eurodollar spread ("TED spread") reflected a measure of the banking system's liquidity needs and perceived credit risk, and had historically been narrow, reflecting the high credit quality and ready access to liquidity enjoyed by major banks. Since August 2007, the TED spread had widened significantly while equity markets remained relatively unaffected (see **Exhibit 13**). While the TED spread had fluctuated, it had not come back to its pre-crisis levels, and as February came to a close it began to widen again. February also saw the nationalization of Britain's Northern Rock.

Bear's Final Days

While Bear drew investor criticism over its 2007 performance, March 2008 began on a positive note: preliminary reporting indicated that Bear would earn about \$1 per share for the first quarter of 2008.⁶⁰

Monday, March 10

On Monday, March 10, apparently in response to concerns from some trading counterparties and hedge funds that used Bear's prime brokerage businesses, Schwartz issued a statement that the firm's "balance sheet, liquidity and capital remain strong."⁶¹ However, the Dutch financial services firm Rabobank Group, a lender to Bear, told the company that it would not renew a \$500 million loan that was coming due in a few days, thereby calling into question the likelihood that it would renew a separate \$2 billion credit agreement with Bear that was set to expire the following week.⁶² Growing concern about Bear's liquidity position was also leading some of its customers to ask other firms—such as Deutsche Bank—to essentially guarantee their trades with Bear.⁶³ Deutsche Bank, among others, agreed to many such requests, but demanded much higher fees than normal to do so.⁶⁴ Top Bear executives, including CFO Samuel Molinaro, phoned trading partners to emphasize that Bear's liquidity position was strong: nearly \$18 billion in cash was on hand with which to settle trades and repay lenders.⁶⁵

Bear faced several potential immediate problems. First, despite substantial cash reserves, Bear needed its short term financing to remain in place to continue funding its securities positions and trade with counterparties. This included bank loans and, most importantly, access to the repo market. While bank and repo counterparties were secured lenders and in some instances held collateral not intended to be affected by bankruptcy, there was some concern that in the event Bear filed for bankruptcy protection, such parties might not immediately be permitted to sell all of their collateral to repay themselves. Lenders preferred to stop extending credit rather than deal with the cost and uncertainties of a potential bankruptcy. Second, when a counterparty executed a trade with Bear (or any other broker), that trade normally "settled" (the cash and the securities were actually transferred) between one and three trading days later, depending on the security. A trading counterparty with a trade outstanding (executed but not yet settled) would be put in the position of a creditor owed either cash or securities in the event of a bankruptcy. Because the courts would likely take some time to sort out who owed what to whom, counterparties could be at risk of some loss and an inability to access their cash or securities. A firm facing the—however unlikely—possibility of bankruptcy would find its counterparties increasingly unwilling to trade, or demanding additional security to do so. Third, while the hedge funds owned the securities they held at Bear's prime brokerage operation and did not have the same risk of loss that creditors faced, in the event of bankruptcy the courts would again likely freeze the movement of all securities, even those held in custody, until they could sort out the ownership issues. Hedge fund managers were reluctant to keep securities and cash at a firm under stress, given their responsibilities to their investors and the availability of other prime brokers.

Tuesday, March 11

On Tuesday, Dutch bank ING Groep NV informed Bear that it was pulling \$500 million in financing,⁶⁶ while hedge fund Adage Capital Management removed much of its money from Bear's prime brokerage arm.⁶⁷ It was reported that other hedge funds began inundating Credit Suisse with requests to guarantee their trades with Bear.⁶⁸ Internally, some Bear executives began to suspect that some hedge funds were shorting the firm's stock in an effort to speed (and profit from) its decline (see **Exhibit 14**).⁶⁹

Concerned about the credit environment but unwilling to open the discount window to non-commercial banks, the Fed announced a plan to lend investment banks up to \$200 billion in Treasury securities for 28 days, beginning March 27, in return for mortgage-backed securities and other illiquid collateral.⁷⁰ In an attempt to ease investor worries, SEC chairman Christopher Cox noted that the

agency was keeping close tabs on Bear and other securities firms: "We have a good deal of comfort about the capital cushions at these firms at the moment."⁷¹ §

Wednesday, March 12

On Wednesday, Schwarz briefly left a media conference in Palm Beach, Florida—where he had been all week—to appear on CNBC in an attempt to ease worries about Bear's position. During the brief broadcast, which occurred shortly after 9:00 a.m., Schwarz stated: "Some people could speculate that Bear Stearns might have some problems...since we're a significant player in the mortgage business. None of those speculations are true."⁷² Schwarz returned to New York that afternoon after completing the media conference. That evening, Bear's senior management met with their advisors at Lazard Freres & Co., LLC to discuss their options in the deteriorating environment.

Thursday, March 13

By Thursday, many securities firms that had long accepted securities as collateral for trades from Bear were requiring cash instead, further pressuring Bear's liquidity.⁷³ Some hedge funds took the step of writing to their investors to clarify their relationship with Bear. Jana Partners, for example, sent investors a memo to inform them that, "in response to many recent inquiries regarding Bear Stearns, ...we have no direct exposure to Bear Stearns or its affiliates through a prime brokerage relationship or otherwise."⁷⁴

Shortly before 1:00 p.m., Schwarz addressed Bear's top 40 executives in the firm's 12th-floor dining hall, telling them, "This is a whole lot of noise."⁷⁵ Others in the room were skeptical; earlier that morning a major prime brokerage client, hedge fund Renaissance Technologies Corp., had moved \$5 billion from Bear to competitors.⁷⁶ While Schwarz was speaking, some executives left to deal with yet another client-related crisis: hedge fund D.E. Shaw & Co. was pulling \$5 billion out.⁷⁷

At 7:00 p.m., Schwarz met with CFO Molinaro and Robert Upton, Bear's treasurer, to review the company's cash position. The news was not good: since Friday, Bear had burned through much of its cash reserves, leaving just \$5.9 billion—and Bear still owed \$2.4 billion to Citigroup.⁷⁸ According to one report, "Mr. Molinaro buried his head in his hands. Mr. Schwarz looked ashen and left abruptly."⁷⁹

Schwarz knew that Bear needed to begin repaying some of its billions in repo borrowings by 7:30 a.m. Friday morning. If it failed to do so, Bear's creditors would likely begin to liquidate the firm's collateral. This was an event that could lead lenders to question the safety of repo loans in general and perhaps to stop making them to other investment banks.⁸⁰ As *The Wall Street Journal* put it, "The \$4.5 trillion repo market isn't a newfangled innovation like subprime-backed collateral debt obligations. It is a decades-old, plain-vanilla market critical to the smooth functioning of the capital markets. A default by a major counterparty would have been unprecedented, and could have had unpredictable consequences for the entire market."⁸¹

After his 7:00 p.m. meeting with Molinaro and Upton, Schwarz called an emergency meeting of Bear's board of directors to authorize a bankruptcy filing if no financing option could be found. The board authorized the filing, but Schwarz believed that Bear should still try to make some sort of deal and that a long term solution could be found if the firm could just survive through Friday.⁸² Schwarz decided to call JPMC: since it acted as Bear's clearing agent, the bank was already somewhat familiar with Bear's assets. Some Bear executives were still hopeful that the Fed would open the discount

§ The SEC would later be severely criticized by its own Inspector General for flawed supervision of Bear (see **Appendix**).

window to their company, allowing Bear to exchange securities for cash and providing one or two critical weeks of breathing room.⁸³

Schwartz reached Dimon on his cell phone a few blocks away, where he was celebrating his 52nd birthday with a family dinner. Initially, Schwartz reportedly asked Dimon for a loan of as much as \$30 billion, which Dimon rejected immediately as too large and too risky.⁸⁴ Dimon, who was soon pacing back and forth on the sidewalk outside the restaurant, called Steve Black, then on vacation in the Caribbean. Black and Dimon spoke with representatives from the Fed, and together concluded that some level of intervention would be necessary to stave off Bear's bankruptcy.

At midnight, JPMC bankers arrived at Bear headquarters to begin assessing Bear's positions.

Friday, March 14

By early Friday morning, Bear's situation remained bleak.⁸⁵ At 5:00 a.m., key regulators—including Bernanke, Geithner, and Paulson—convened to discuss their options. By 7:00 a.m., they had decided that the Fed should extend a loan to Bear using JPMC as a "conduit." Such an arrangement would allow Bear to stay afloat without forcing the Fed explicitly to open the discount window to an investment bank. Before the markets opened on Friday morning, a press release was issued stating that the Fed would provide Bear funding "as necessary" through JPMC for up to 28 days.⁸⁶ The funding would be secured by Bear's collateral, and the Fed, not JPMC, shouldered the risk of losses if that collateral fell in value.⁸⁷ As one observer put it, "with each firm intricately intertwined with others in a maze of loans, credit lines, derivatives and swaps, the Fed and Treasury agreed that letting Bear Stearns collapse quickly was a risk not worth taking, because the consequences were simply unknowable."⁸⁸

Bear executives cheered as the decision was announced: it appeared they had bought themselves four weeks to find a long term solution to the company's financial woes.⁸⁹ Bear immediately began searching for a buyer. Interested parties included JPMC itself, hedge fund giant Citadel Investment Group, and private equity firm J.C. Flowers & Co.⁹⁰ Also expressing interest were private equity firm Kohlberg Kravis Roberts & Co., and commercial banks Barclays PLC and the Royal Bank of Canada.⁹¹

Despite the lifeline from the Fed, Bear's stock plunged 47% to close at \$30 per share, a 62% discount to the firm's book value of \$80—a discrepancy reflecting the market's view that the effects of the credit crisis had mortally wounded the firm's core financial operations.⁹² Throughout the day almost 190 million Bear shares traded, 17 times the norm.⁹³ Bear's 14,000 employees, who collectively owned one third of the company, were forbidden from selling any of their shares due to longstanding "lock-up" rules that applied during the weeks leading up to the firm's earnings releases.⁹⁴ As employees watched the value of their financial holdings plummet, hundreds gathered to view a recorded video message from Schwartz, who noted his disappointment but stated that employees should "try not to lose heart."⁹⁵

On an afternoon conference call with investors, Schwartz acknowledged that Bear's cash had "deteriorated," but noted that the financing through JPMC would allow the firm to continue "business as usual," while stressing many analyst projections that saw Bear earning over \$1 per share for the quarter.⁹⁶ Despite these assurances, credit rating agencies dropped Bear's debt to near-junk status, further impairing the willingness of others to trade with them.⁹⁷ By the evening, banks and other counterparties were outright refusing to do any business with Bear.⁹⁸

Bear's Final Hours

Buying a house is not the same as buying a house on fire.

—Jamie Dimon⁹⁹

On Friday night, Schwartz was on his way home when he received a call from Paulson and Geithner. Despite the financing provided through JPMC, it had been decided that it was unlikely that Bear would make it past the weekend, and there was concern about the effects of the firm's failure on the financial system.¹⁰⁰ Paulson told Schwartz, "You need to have a deal by Sunday night," before Monday's trading opened in Australia (at 6:00 p.m. Sunday in New York).¹⁰¹ As one Bear executive noted, "We thought they gave us 28 days. Then they gave us 24 hours."¹⁰² Geithner would later say that the Fed was precluded from opening the discount window to Bear at that point because they judged the firm to be too close to failing.¹⁰³

Bear's management estimated that Bear would have funding requirements of between \$60 billion and \$100 billion as markets opened on Monday.¹⁰⁴ Bear's only options were a transaction over the weekend to restore market confidence or a bankruptcy filing on Monday. Working to expedite a weekend deal, Bear's advisors at Lazard shared due diligence materials with J.C. Flowers and JPMC.

On Saturday afternoon, J.C. Flowers made an offer: to purchase 90% of Bear for \$3 billion in cash—a price of \$28 per share—contingent upon its ability to round up \$20 billion in financing from banks and other institutions.¹⁰⁵ At the same time, JPMC was debating the merits of a deal for \$8-to-\$12 per share, implicitly valuing Bear at between \$945 million and \$1.4 billion.¹⁰⁶

Bear had some attractive assets; among these were its prime brokerage business, which was estimated to be worth \$3 billion,¹⁰⁷ and its midtown Manhattan headquarters building directly across the street from JPMC headquarters, which was valued at up to \$1 billion.¹⁰⁸ Bear also had a substantial energy and commodities operation that owned several power stations and traded both financial derivatives and the physical commodities themselves. However, Fed regulations barred JPMC from trading in physical commodities. Sanford Bernstein analyst Brad Hintz estimated that the individual pieces of Bear's business, assuming they were "going concerns," were worth \$7.7 billion in total (see **Exhibit 15**).¹⁰⁹

The downside included the risk that Bear's \$395 billion of assets were overvalued, especially its mortgaged-related assets. Deutsche Bank analysts pointed to the potential cost in getting the value of Bear's assets wrong:

Small changes in the value of this \$400B can easily change the value accretion nature of the transaction to value destruction. In other words, Bear was leveraged 30-to-1 given the level of tangible equity, and with leverage, small changes make a difference. Thus, it probably comes down to whether the Fed's efforts to calm fixed income markets succeeds or not...¹¹⁰

JPMC would also have to create a reserve against the likelihood of litigation associated with Bear's collapse, and to account for considerable costs related to de-leveraging, conforming Bear's accounting with JPMC's, linking technology and facilities, and severance payments to employees dismissed due to the acquisition. In addition, realizing the value in mergers between investment banks was notoriously difficult even when the cultures were similar because clients and talented employees often left for other firms.

By 8:00 a.m. Sunday morning, it was clear that J.C. Flowers would be unable to line up the financing its offer required, leaving JPMC as the sole remaining bidder.¹¹¹ At 10:00 a.m., Dimon and the JPMC executives decided they could not make an offer. Despite the round-the-clock combined

efforts of several hundred JPMC bankers, the limited time the JPMC team had to perform its due diligence did not allow them to satisfactorily quantify the risk embedded in Bear's assets, particularly that in the over \$40 billion of mortgage related securities. "We had literally 48 hours to do what normally takes a month," Dimon said.¹¹²

After much discussion, the Fed offered to provide special financing of \$30 billion to backstop any losses JPMC incurred on illiquid assets in Bear's securities portfolio. Dimon then agreed to purchase Bear in a stock-for-stock transaction that valued Bear at about \$2 per share. It was reported, but never officially confirmed, that Treasury Secretary Paulson insisted that the price be \$2 per share in order to dispel concerns that the government was encouraging moral hazard.

JPMC's purchase of Bear was announced late Sunday night, March 16. Simultaneously, the Fed announced that investment banks would be allowed access to the discount window, and lowered interest rates by 25 basis points. The Fed would lower rates again by 75 basis points at its regular meeting on March 18.

Although the Bear board accepted JPMC's \$2 per share offer, subsequent resistance among Bear shareholders and the desire to avoid potential litigation led JPMC on March 24 to raise the offer, with Fed approval, to an equivalent of about \$10 per share.¹¹³ The Fed financing arrangement was changed, with the Fed now agreeing to absorb losses after the first \$1 billion, which became JPMC's responsibility, on a portfolio of \$30 billion of investment grade securities that its advisor, Blackrock, would choose from among Bear's assets, and which Blackrock would manage for the Fed.

JPMC took a reserve of \$6 billion against merger related costs, reducing Bear's capital to approximately \$5 billion, and estimated that the deal would add \$1 billion in incremental earnings once the integration was complete.

Exhibit 1 Leading Underwriters of U.S. Mortgage-Backed Securities, 2004-2007 (in \$ million)

2007			2006			2005			2004		
Rank	Bookrunners	Proceeds	Rank	Bookrunners	Proceeds	Rank	Bookrunners	Proceeds	Rank	Bookrunners	Proceeds
1	Bear Stearns & Co Inc	47,831.4	1	Bear Stearns & Co Inc	69,386.7	1	Lehman Brothers	58,789.4	1	Bear Stearns & Co Inc	50,783.5
2	Lehman Brothers	46,877.1	2	Lehman Brothers	64,908.1	2	Bear Stearns & Co Inc	58,598.3	2	Lehman Brothers	32,519.5
3	Deutsche Bank Securities Corp	36,077.8	3	Greenwich Capital Markets Inc	55,108.0	3	Royal Bank of Scotland	55,454.4	3	BofA Securities	27,594.1
4	WaMu Capital Corp	34,430.5	4	Countrywide Securities Corp	44,948.4	4	Countrywide Securities	38,869.5	4	UBS	26,750.8
5	Credit Suisse	31,144.5	5	Goldman Sachs & Co	44,480.8	5	UBS	34,766.0	5	Royal Bank of Scotland	25,359.4
6	JP Morgan	30,937.2	6	Deutsche Bank Securities Corp	41,738.2	6	CSFB	28,910.6	6	CSFB	24,100.8
7	Goldman Sachs & Co	27,792.2	7	WaMu Capital Corp	40,507.1	7	Goldman Sachs	28,613.1	7	Countrywide Securities	23,384.3
8	Countrywide Securities Corp	27,621.6	8	Credit Suisse	38,352.2	8	BofA Securities	27,572.7	8	Goldman Sachs	21,303.5
9	Greenwich Capital Markets Inc	25,554.8	9	UBS Investment Bank	31,243.8	9	JP Morgan Chase	26,625.0	9	Citigroup	17,963.5
10	Banc of America Securities LLC	24,125.3	10	JP Morgan	30,976.6	10	Washington Mutual	22,196.0	10	Merrill Lynch	15,750.5
11	UBS Investment Bank	20,981.6	11	Banc of America Securities LLC	28,010.7	11	Deutsche Bank	20,827.4	11	Morgan Stanley	14,790.8
12	Citigroup	16,967.7	12	Citigroup	27,385.3	12	Citigroup	19,566.3	12	Washington Mutual	7,172.5
13	Merrill Lynch	15,362.6	13	Morgan Stanley	19,618.1	13	Merrill Lynch	17,083.3	13	Deutsche Bank	3,950.5
14	Morgan Stanley	11,329.8	14	Merrill Lynch	15,742.4	14	Morgan Stanley	13,465.8	14	JP Morgan	2,811.1
15	HSBC Securities Inc	9,411.2	15	Barclays Capital	14,728.3	15	Barclays Capital	5,177.5	15	Nomura	1,130.0
All others		51,695.4	All others		24,187.1	All others		19,783.9	All others		11,568.7
Total		458,140.7	Total		591,321.8	Total		476,299.2	Total		306,933.5

Source: Thomson Financial (SDC database), accessed November 2008.

Exhibit 2 Bear, Stearns & Co., Balance Sheet Data, as amended, 2004-2007, and unaudited Q1 2008 (in \$ million)

	Q1 2008 (unaudited)				
(FY ending November 30)	2007	2006	2005	2004	2004
Assets					
Cash and equivalents	\$20,786	21,406	4,595	5,859	4,173
Cash and securities deposited with clearing organizations or segregated in compliance with federal regulations	14,910	12,890	8,804	5,270	4,423
Securities received as collateral	15,371	15,599	19,648	12,426	8,823
Collateralized agreements:					
Securities purchased under agreements to resell	26,888	27,878	38,838	42,648	45,395
Securities borrowed	87,143	82,245	80,523	62,915	69,793
Receivables:					
Customers	41,990	41,115	29,482	33,255	32,114
Brokers, dealers and others	10,854	11,622	6,119	3,545	2,934
Interest and dividends	488	785	745	433	316
Financial instruments owned, at fair value	118,201	122,518	109,200	93,364	41,490
Financial instruments owned and pledged as collateral, at fair value	22,903	15,724	15,968	12,880	36,907
Total financial instruments owned, at fair value	141,104	138,242	125,168	106,244	78,397
Assets of variable interest entities and mortgage loan special purpose entities	29,991	33,553	30,245	15,152	4,837
Property, equipment, and leasehold improvements, net of accumulated depreciation and amortization	608	605	480	451	381
Other assets	8,862	9,422	5,786	4,437	4,362
Total Assets	\$398,995	395,362	350,433	292,635	255,950
Liabilities and Stockholders' Equity					
Unsecured short term borrowings	\$8,538	11,643	25,787	20,016	12,211
Obligation to return securities received as collateral	15,371	15,599	19,648	12,426	8,823
Collateralized financings:					
Securities sold under agreements to repurchase	98,272	102,373	69,750	66,132	58,604
Securities loaned	4,874	3,935	11,451	10,104	10,719
Other secured borrowings	7,778	12,361	3,275	0	0
Payables:					
Customers	91,632	83,204	72,989	73,231	79,384
Brokers, dealers and others	5,642	4,101	3,397	2,657	2,345
Interest and dividends	853	1,301	1,123	797	569

(FY ending November 30)	Q1 2008 (unaudited)	2007	2006	2005	2004
Financial instruments sold, but not yet purchased, at fair value	51,544	43,807	42,257	35,004	29,476
Liabilities of variable interest entities and mortgage loan special purpose entities	26,739	30,605	29,080	14,321	4,762
Accrued employee compensation and benefits	360	1,651	2,895	1,853	1,678
Other liabilities and accrued expenses	3,743	4,451	2,082	1,812	1,546
Long-term borrowings	71,753	68,538	54,570	43,490	36,843
Total Liabilities	\$387,099	383,569	338,304	238,354	210,116
Commitments and contingencies					
<i>Stockholders' Equity</i>					
Preferred stock	352	352	359	372	448
Common stock, \$1 par value; 500,000,000 shares authorized as of November 30, 2007 and 2006; 184,805,847 shares issued as of November 30, 2007 and 2006	185	185	185	185	185
Paid-in capital	5,619	4,986	4,579	4,109	3,548
Retained earnings	9,419	9,441	9,385	7,493	6,177
Employee stock compensation plans	2,164	2,478	2,066	2,600	2,667
Accumulated and other comprehensive (loss) income	25	-8	0	0	0
Shares held in RSU trust	-2,955	0	0	0	0
Treasury stock, at cost:					
Common stock: 71,807,227 and 67,396,876 shares as of November 30, 2007 and 2006, respectively	-2,913	-5,641	-4,445	-3,824	-3,876
Total Stockholders' Equity	11,896	11,793	12,129	10,791	8,991
Total Liabilities and Stockholders' Equity	398,995	395,362	350,433	292,635	255,950

Source: Bear Stearns & Co, 10-K and 10-Q reports, various years.

Exhibit 3 Bear, Stearns & Co., Commitments, Contingencies, and Guarantees, 2008–2012 (in \$ million)**Commitments and Contingencies**

(FY ending November 30)	Total	2008	2009	2010	2011	2012	Thereafter
Commitments through Bear Energy	4,319	81	82	83	258	416	3,399
Leases	1,250	125	122	122	133	98	650
Lending-related commitments, of which							
to investment grade borrowers*	3,420						
to noninvestment grade borrowers*	3,300						
Other contingent lending commitments to noninvestment grade companies	501						
Commitments related to private equity-related investments and partnerships	729						
In connection with underwriting	652						
Commitments to purchase of finance commercial and residential mortgage loans	2,830						
Letters of credit, of which							
Secured	1,330						
Unsecured	1,420						
Commitments to purchase credit card and personal bankruptcy receivables	170						
Total	5,569	14,558					

Guarantees

(Expiring during FY ending November 30)	Total	2008	2009–2010	2011–2012	Thereafter
Derivative contracts (notional value)	2,515,965	495,124	472,384	742,138	806,319
Related to trusts consisting of municipal securities	3,872	3,370	502	0	0
Related to operating lease arrangement for headquarters building	570	0	0	570	0
Total	2,520,407	498,494			

Source: Bear, Stearns & Co., 2007 Form 10-K, pp. 118-121.

*Note: \$952 million of credit risk for investment grade loan commitments and \$220 million of credit risk for noninvestment grade loan commitments was offset by hedges.

Exhibit 4 Bear Stearns & Co., Income Sheet Data, as amended, 2004-2007, and unaudited Q1 2008 (in \$ million, except EPS and ratios)

(FY ending November 30)	Q1 2008 (unaudited)	2007	2006	2005	2004
Revenues	3,427	16,151	16,551	11,552	8,422
Capital Markets	1,036	3,919	7,322	5,641	5,305
Institutional equities	811	2,158	1,962	1,446	1,088
Fixed income	66	685	4,190	3,293	3,147
Investment Banking	159	1,076	1,170	983	1,070
Global Clearing Services	253	1,200	1,077	1,029	894
Wealth Management	200	830	858	681	628
Private client services	161	602	522	453	442
Asset management	39	228	335	228	187
Interest Expense	1,948	10,206	7,324	4,141	1,609
Net Revenues	1,479	5,945	9,227	7,411	6,813
Non-interest Expenses					
Employee Compensation and Benefits	754	3,425	4,343	3,553	3,254
Floor brokerage, exchange, and clearance fees	79	279	227	222	231
Communications technology	154	578	479	402	369
Occupancy	73	264	198	168	142
Advertising and market development	40	179	147	127	114
Professional fees	100	362	280	229	197
Impairment of goodwill and specialist rights	0	227	0	0	0
Other	126	438	406	503	484
Total	1,326	5,752	6,080	5,204	4,791
Net Pretax Income, of which	153	193	3,147	2,207	2,022
Capital Markets	171	-232	2,801	2,020	1,915
Global Clearing Services	86	566	465	472	350
Wealth Management	-42	-45	69	37	67
Other	-62	-96	-188	-322	-305
(Benefit from)/Provision for income taxes	38	(40)	1,093	745	677
Net Income	115	233	2,054	1,462	1,345
Preferred stock dividends	-5	-21	-21	-24	-28
Net income applicable to common shares	110	212	2,033	1,438	1,317
Basic earnings per share (\$)	\$0.89	\$1.68	\$15.79	\$11.42	\$10.88
Diluted earnings per share (\$)	\$0.86	\$1.52	\$14.27	\$10.31	\$9.76
Weighted avg. common shares outstanding, basic	129	130	132	130	127
Weighted avg. common shares outstanding, diluted	139	146	149	147	145
Return on Average Common Equity (%)	0.97%	1.80%	19.10%	16.50%	19.10%

Source: Bear Stearns & Co, 10-K and 10-Q reports, various years.

Exhibit 5 Selected Money Market Funds Assets and Repurchase Agreements with Bear Stearns (in \$ million)

	Date	Assets	Repurchase Agreements	Repurchase Agreements with Bear Stearns	Collateral for Bear Stearns Repurchase Agreement	Term of Bear Stearns Repurchase Agreement
Fidelity Cash Reserves	11/30/2007	110,363	29,323	370	Mortgage Loan Obligations valued at \$389 million	3-Month
Vanguard Prime Money Market Fund	02/29/2008	109,248	3,419	-		
JPMorgan Prime Money Market Fund	08/31/2008	104,379	15,220	-		
Goldman Sachs money market funds*	12/31/2007	99,705	29,105	1,000	U.S. Government securities worth \$1,000 million	Overnight
Schwab Value Advantage Money Fund	12/31/2007	59,684	3,960	1,690	U.S. Government securities worth \$1,724 million	Overnight
Schwab Cash Reserves	12/31/2007	26,162	2,329	515	U.S. Government securities worth \$525 million	Overnight
Schwab Advisor Cash Reserves	12/31/2007	21,439	1,673	765	U.S. Government securities worth \$780 million	Overnight
The Reserve Fund Primary Fund	11/30/2007	38,787	2,950	1,450	ABS and CMOs worth \$1,522.4 million	Overnight
The Reserve Fund Primary II Fund	11/30/2007	23,500	4,091	1,200	ABS, CMOs, and Freddie Mac securities worth \$1,254.9 million	Overnight
Dreyfus Cash Management Fund	01/31/2008	23,225	3,733	300	Corporate bonds worth \$308 million	Overnight
Dreyfus Institutional Preferred Money Market Fund	09/30/2007	10,418	820	200	Corporate bonds worth \$206 million	Overnight

Source: Casewriter compilation from fund SEC filings.

* Note: joint repurchase agreement account I is shared across four funds: Prime Obligations, Money Market, Treasury Obligations, and Government. Joint repurchase agreement account II is shared across the Prime, Money Market, and Government Funds.

Exhibit 6 Detail of Goldman Sachs Money Market Funds Repurchase Agreements*, December 31, 2007

Joint repurchase agreement account I (secured by US Treasury securities)			
Counterparty	Principal Amount	Interest Rate	Maturity Date
ABN Amro, Inc.	1,000	1.50%	1/2/2008
Banc of America Securities LLC	300	1.00%	1/2/2008
Barclays Capital PLC	500	1.75%	1/2/2008
Bear Stearns & Co., Inc	1,000	2.00%	1/2/2008
Deutsche Bank Securities, Inc	1,650	1.50%	1/2/2008
Greenwich Capital Markets	1,000	1.50%	1/2/2008
JPMorgan Securities, Inc.	1,500	1.50%	1/2/2008
Lehman Brothers Holdings, Inc.	250	0.75%	1/2/2008
Lehman Brothers Holdings, Inc.	1,000	1.25%	1/2/2008
Merrill Lynch & Co., Inc.	500	1.00%	1/2/2008
Total principal amount	8,700		
Joint repurchase agreement account II (secured by US Agency securities)			
ABN Amro, Inc.	4,000	4.85%	1/2/2008
Banc of America Securities LLC	2,000	4.50%	1/2/2008
Barclays Capital PLC	2,700	4.65%	1/2/2008
Citigroup Global Markets, Inc.	2,500	5.00%	1/2/2008
Deutsche Bank Securities, Inc	6,550	4.75%	1/2/2008
Greenwich Capital Markets	1,000	4.75%	1/2/2008
Merrill Lynch & Co., Inc.	750	4.50%	1/2/2008
UBS Securities LLC	905	4.65%	1/2/2008
Total principal amount	20,405		
Total size of money market funds	99,750		

Source: Goldman Sachs Trust, Form N-CSR, March 7, 2008, pp. 50-51, available at www.sec.gov/Archives/edgar/data/822977/000095012308002689/y46663nvcstr.htm, accessed December 5, 2008.

* Note: Joint repurchase agreement account I is shared across four funds: Prime Obligations, Money Market, Treasury Obligations, and Government. Joint repurchase agreement account II is shared across the Prime, Money Market, and Government Funds.

Exhibit 7 Liquidity Positions of Leading U.S. Investment Banks, November 30, 2007

(in \$ billion)	Bear Stearns	Goldman Sachs	Lehman Brothers	Merrill Lynch	Morgan Stanley
Total Liquidity (defined as cash + liquid assets + unencumbered asset borrowing value)	35.3	168.6	169.8	181.9	118.0
Total Assets	395.4	1,119.80	691.1	1,020.1	1,045.4
Total Liquidity as Percentage of Total Assets	9%	15%	25%	18%	11%
Short-term Unsecured Debt	20.6	71.6	21.5	73.3	65.3
Liquidity Ratio (defined as Total Liquidity / Short-term Unsecured Debt)	171%	236%	790%	248%	181%
Repo Financing	102.4	159.2	181.7	235.7	162.8
Repo Lending	27.9	85.7	162.6	221.6	126.9
Net Repo Financing	74.5	73.5	19.1	14.1	36.0
Total Liquidity as Percentage of Repo Financing	34%	106%	93%	77%	72%
Total Liquidity as Percentage of Net Repo Financing	47%	230%	889%	1289%	328%

Source: Adapted from James Mitchell and John Grassano, "Securities Brokers: Evaluating Liquidity at the Rest of the Brokers in a 'Run on the Bank' Scenario," The Buckingham Research Group, March 17, 2008, p. 2.

Exhibit 8 Criteria for JP Morgan Chase Operating Committee Bonuses, 2007*Quantitative criteria*

-
- | | |
|---|---|
| <ul style="list-style-type: none"> • Operating earnings • Credit and risk management • Revenue growth • Expense management • Contribution across business lines • Return on capital | <ul style="list-style-type: none"> • Investing for growth – business expansion and technology • Improving client satisfaction • Executing other major projects • Improving operational efficiency • Capital and liquidity management |
|---|---|

Qualitative criteria

-
- | | |
|--|---|
| <ul style="list-style-type: none"> • Quality of earnings • Establishing, refining and executing long term strategic plans • Achieving and maintaining market leadership positions in key businesses • Attracting, developing and retaining highly effective and diverse leaders • Executing acquisition integration tasks | <ul style="list-style-type: none"> • Building an inclusive culture • Thinking beyond your own business • Maintaining compliance and controls • Protecting the integrity and reputation of the Firm • Supporting the Firm's values • Supporting and strengthening the communities we serve worldwide |
|--|---|

Source: JP Morgan Chase & Co.

Exhibit 9 JP Morgan Chase & Co., Selected Financial Data (as amended), 2004–2007 (in \$ million, except EPS and ratios)

	Q1 2008	2007	2006	2005	2004
Revenue, net	16,890	71,372	61,999	54,248	42,736
Income from Continuing Operations	-	15,365	13,649	8,254	4,260
Net pretax income from continuing operations	3,535	22,808	19,886	11,839	5,856
Net income	2,373	15,365	14,444	8,483	4,466
Operating earnings by line of business					
Investment Bank	-87	3,139	3,674	3,673	2,948
Retail Financial Services	-227	3,035	3,213	3,427	2,199
Card Services	609	2,919	3,206	1,907	1,274
Commercial Banking	292	1,134	1,010	951	608
Treasury and Securities Services	403	1,397	1,090	863	440
Asset Management	356	1,966	1,409	1,216	681
Corporate	15	1,775	842	-3,554	61
Total Assets	1,642,862	1,562,147	1,351,520	1,198,942	1,157,248
Total Deposits	761,626	740,728	638,788	554,991	521,456
Long-term Debt	189,995	183,862	133,421	108,357	95,422
Total Liabilities	1,517,235	1,438,926	1,235,730	1,091,731	1,051,595
Stockholders' Equity	125,627	123,221	115,790	107,211	105,653
Tier 1 Capital	\$89,600	86,746	81,055	72,474	68,621
Tier 2 Capital	-	43,496	34,210	29,963	28,186
Tier 1 Capital Ratio	8.3%	8.4%	8.7%	8.5%	8.7%
Total Capital Ratio	12.5%	12.6%	12.3%	12.0%	12.2%
Gross Leverage Ratio	12.7%	12.7%	11.7%	11.2%	10.9%
Allowance for loan losses (to total loans)	2.29%	1.78%	1.51%	1.69%	1.82%
Return on Equity	8%	13%	13%	8%	6%
Earnings per share, diluted	\$0.68	\$4.38	\$4.04	\$2.38	\$1.55

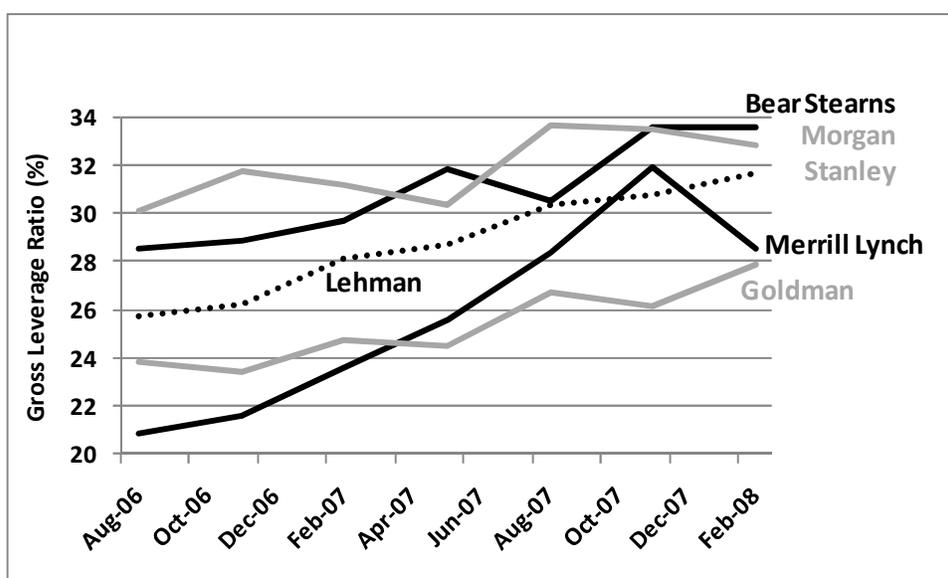
Source: JP Morgan Chase & Co., 10-K and 10-Q reports, various years.

Exhibit 10 Comparative Data on Leading Commercial and Investment Banks, 2007 (in \$ billion)

	Commercial Banks				Investment Banks				
	JPMC	Citigroup	UBS	Bank of America	Bear	Goldman Sachs	Lehman Brothers	Morgan Stanley	Merrill Lynch
Assets (A)	1,562	2,187	2,273	1,716	395	1,120	691	1,045	1,020
Shareholders' Equity (B)	123	114	43	147	12	43	22	32	32
Leverage ratio (A/B)	12.7	19.2	52.8	11.7	33.2	26.2	30.7	32.6	31.9
Market Cap	147	147	109	183	15	105	32	53	50

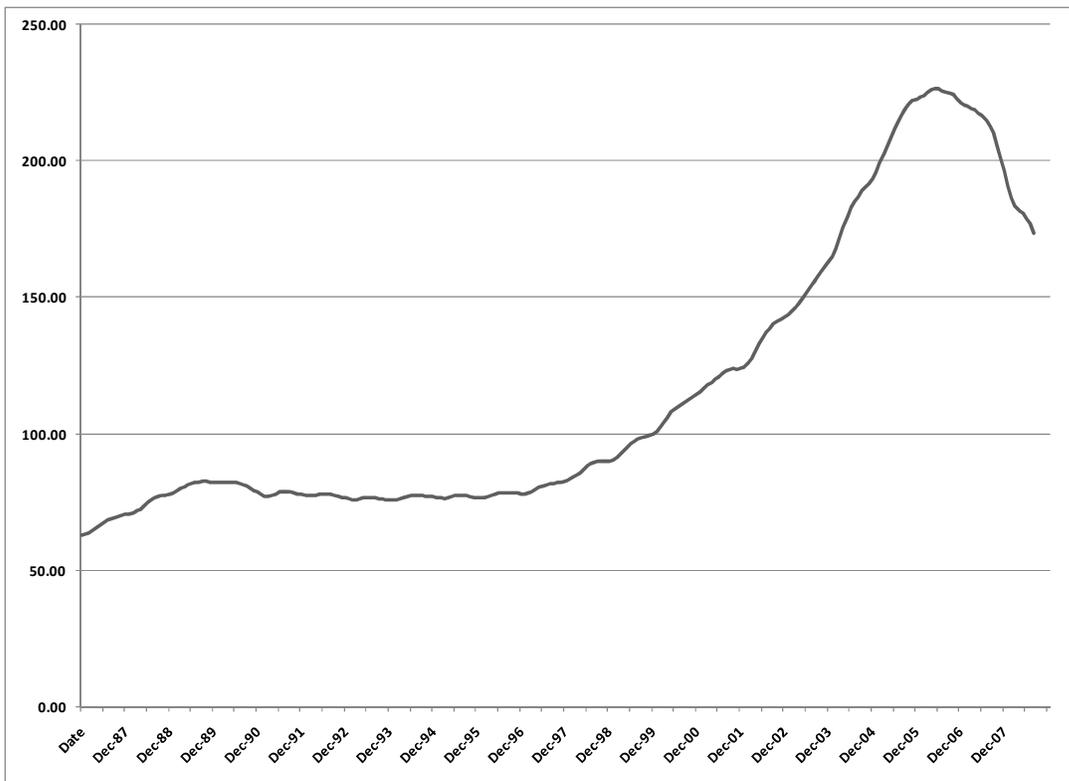
Source: Compiled from company reports.

Note: Commercial bank data for year-end 2007, UBS data in CHF billion; investment bank data for FY ending Nov 30, 2007.

Exhibit 11 Gross Leverage Ratios at Leading Broker-Dealers, Fiscal Q3 2006 – Fiscal Q1 2008 (in %)

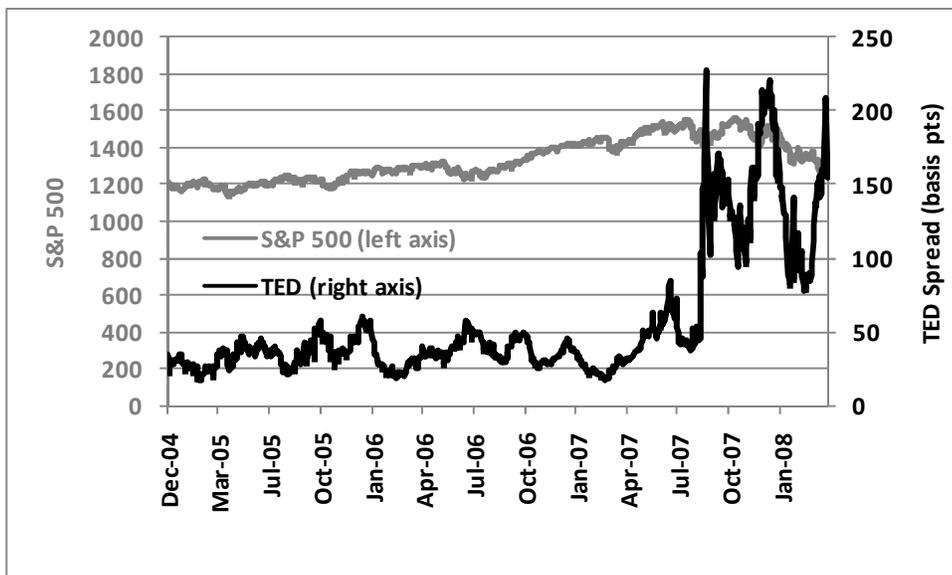
Source: U.S. Securities and Exchange Commission, Office of Inspector General, "SEC's Oversight of Bear Stearns and Related Entities," report 445-A, September 25, 2008, p. 119, available at www.sec.gov/about/oig/audit/2008/446-a.pdf.

Exhibit 12 Case-Shiller Composite U.S. Home Price Index, June 1, 1997 – June 2008

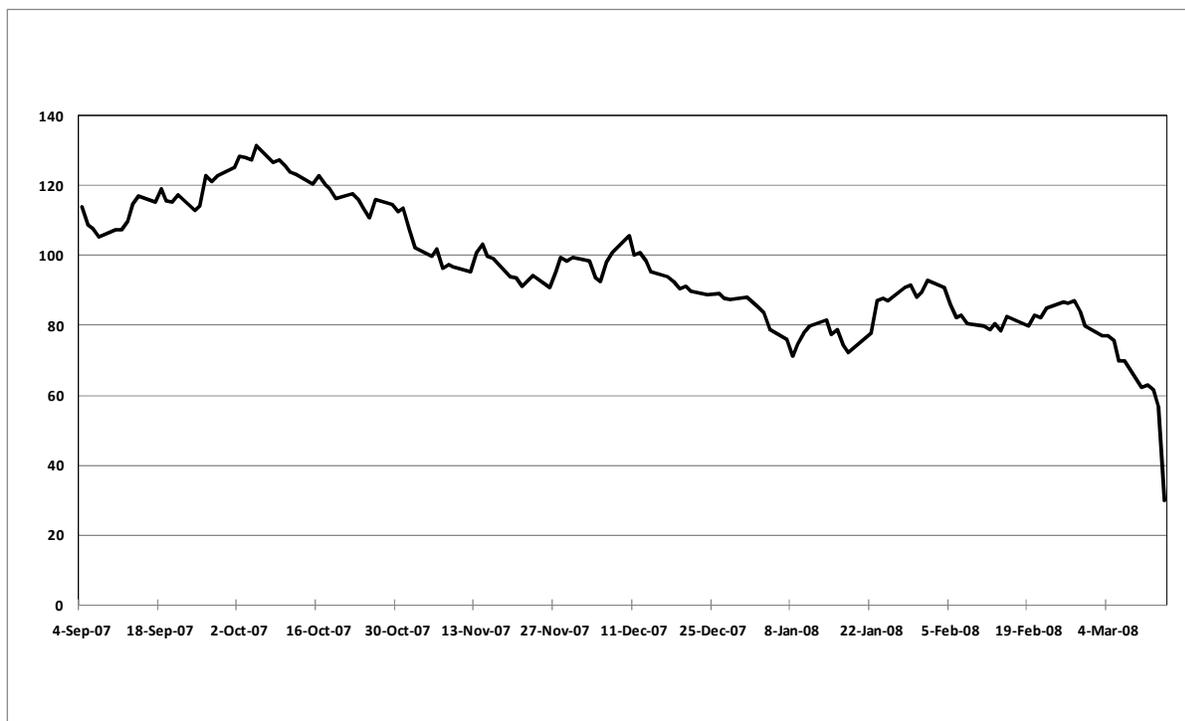


Source: Compiled from data available at Standard & Poor's, www2.standardandpoors.com/portal/site/sp/en/us/page.topic/indices_csmahp/2,3,4,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0.html, accessed December 3, 2008.

Exhibit 13 TED Spread and S&P 500 Index, January 1, 2000-March 16, 2008



Source: Thomson Financial, Thomson ONE Banker data, accessed December 2008.

Exhibit 14 Bear Stearns Share Price, September 2007–March 2008

Source: Datastream, accessed September 4, 2008.

Exhibit 15 Sanford Bernstein Estimates of Bear Stearns Break Up Value (in \$ billion)

Business	Value	Argument
Prime Brokerage	3.0	1x book value of \$3 billion
Merchant Banking	1.3	15% of \$1.9 billion in assets under management + \$1 billion in investments
Asset Management	1.3	3x 2007 revenues of \$428 million, based on comparable firms
High Net Worth Brokerage	1.0	2.8x 2007 revenues of \$361million, based on recent transactions
Mortgage Servicing	0.6	Estimate of \$180 million revenue each year, 30% pretax margin, 18x multiple
Energy Assets	0.5	Not given
Total	7.7	
Market Value (3/14/08)	4.1	
Book Value	11.8	

Source: Adapted from Brad Hintz, "Bear Stearns: Sale Price \$240 Million, Break-Up Value of 'Good' Businesses Calculated at \$7.7 Billion," Sanford Bernstein Research, March 17, 2008, p. 5.

Appendix

Brief Overview of U.S. Financial Services Regulation

The regulatory system for the U.S. financial services industry is complex, and this Appendix is intended only to summarize aspects of the system to facilitate a better understanding and evaluation of this case.

Historically, commercial banking involved both taking deposits and making loans that remained on the lender's balance sheet. Investment banking involved the underwriting of debt and equity securities, buying them from the issuer typically with a syndicate of other firms, and then selling them on to investors. In support of these activities, investment banks also stood ready to use their own capital to buy and sell these securities from and to investors—acting as “market makers” or “broker-dealers.” Prior to 1933, financial firms could engage in both commercial and investment banking, but in response to Great Depression-era crises and in an effort to protect depositors from the perceived risk inherent in underwriting securities, Congress prohibited investment banking and commercial banking in the same firm with the 1933 Glass-Steagall Act. Glass-Steagall also created federal insurance for retail deposits at commercial banks, administered by the Federal Deposit Insurance Corporation (FDIC).

The distinction between commercial banks and investment banks began to blur in the mid 1980s, and beginning in the late 1980s the Fed began to remove Glass-Steagall's restrictions. Congress ratified these actions in 1999 with the passage of the Gramm-Leach-Bliley Act. Some commercial and investment banks consolidated, and cross-industry conglomerates such as Citigroup, JP Morgan Chase, and UBS formed. Other investment banks, including Bear Stearns, Goldman Sachs, Lehman Brothers, and Morgan Stanley, chose not to enter the commercial banking business and take deposits. As a result, they did not enjoy access to the Fed's discount window (explained below).

The system for regulating commercial banks in the U.S. was highly fragmented and complex. There were both federal and state regulators, which had responsibility for maintaining the “safety and soundness” of the banking system. Among federal regulators, the Federal Reserve Board had responsibility for state-chartered banks that were members of the Federal Reserve system as well as all bank holding companies. The FDIC had responsibility for state-chartered banks that were not part of the Federal Reserve system. The Office of the Comptroller of the Currency (part of the U.S. Treasury Department) had responsibility for federally chartered banks (which were members of the Federal Reserve system). The FDIC oversaw the federal deposit insurance program and also managed banks that were in danger of failing or had failed. Deposit insurance provided bank customers with government protection on their deposits in the instance of a bank failure, which enhanced stability in the financial system by reducing the threat of a “bank run,” a situation in which depositors seek to withdraw funds in excess of the cash and liquid securities immediately available to the bank. In 1991, Congress passed legislation requiring that in managing a bank failure the FDIC take the “least cost approach” to resolving the failure (to the taxpayers), with exceptions requiring special approval and documentation.

The Fed's Board of Governors determined which organizations had access to the discount window, and historically limited it to commercial banks and other depository institutions (whether part of the Federal Reserve system or not). Through this mechanism, commercial banks could borrow money from the Fed to create liquidity for their balance sheets, using loans and investment grade securities as collateral, without having to sell assets into a potentially unreceptive market in a time of

systemic stress. In normal times the discount window was rarely used, but its availability helped promote stability in the banking system even in the absence of its use.

The SEC was the primary U.S. regulator for investment banks or “broker-dealers,” mandating capital requirements for these entities that were significantly more relaxed than those required of commercial banks. Broker-dealers were also subject to regulations in the states in which they operated, as well as oversight by regulators in specific markets where they had a presence, such as futures markets.

Beginning in the 1990s, various financial regulators and Congress recognized that in addition to the blurring lines of business, the largest financial firms were structured as holding companies with many subsidiaries, some regulated and some not. Moreover, the largest financial firms controlled an increasing proportion of financial assets and represented an increasing proportion of the system’s risk. For example, 21 of the 5,154 bank holding companies under Fed supervision in 2005 controlled 62% of the nation’s banking assets and were deemed to be “Large Complex Banking Operations” (LCBOs). In response, financial regulators at different points in time developed a special supervisory regime for these firms, so-called “consolidated supervision,” which sought to evaluate the risks at the same level as the firm’s management, rather than subsidiary by subsidiary. The Fed began its program in the early 1990s, the SEC in 2004. The SEC program, “Consolidated Supervisory Entities” (CSE), was voluntary and there were five firms under supervision.^h It was intended to “provide consolidated supervision to investment bank holding companies that is broadly consistent with Federal Reserve oversight of Bank Holding Companies.”¹¹⁴ In particular, as mandated for banks under the Basel II accord, capital requirements were to be determined by the riskiness of assets held by each firm and calculated using each investment bank’s models and processes. The SEC program also explicitly accounted for differences between investment and commercial banks, among them the “critical importance of maintaining adequate liquidity in all market environments for (investment bank) holding companies that do not have access to an external liquidity provider such as a central bank.” Said Harvey Goldschmid, an SEC commissioner who voted for the program, “If anything goes wrong, there’s going to be an awfully big mess.”¹¹⁵

According to an examination by the SEC Inspector General (IG) following Bear’s collapse,¹¹⁶ there were multiple failures in how the SEC implemented the CSE program. For example, the IG contended that the SEC failed to account for Bear’s high leverage and concentration of mortgage assets, did not recognize a link between capital and liquidity, relied on the firm’s auditors rather than external auditors (as required) to verify the quality of the risk management systems and models, and did not address problems with segregation of duties between traders and those monitoring risks.

Source: Casewriter compilation from United States Government Accountability Office, *Financial Market Regulation: Agencies Engaged in Consolidated Supervision Can Strengthen Performance Measurement and Collaboration*, GAO 07-154, March 2007, <http://www.gao.gov/new.items/d07154.pdf>, accessed December 4, 2008; U.S. Securities and Exchange Commission, Office of Inspector General, *SEC’s Oversight of Bear Stearns and Related Entities*, report no. 445-A and 445-B, September 25, 2008, available at www.sec.gov/about/oig/audit/2008/446-a.pdf and www.sec.gov/about/oig/audit/2008/446-b.pdf, accessed December 2, 2008.

^h Bear Stearns, Goldman Sachs, Lehman Brothers, Merrill Lynch, and Morgan Stanley

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⁸ Ibid.

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¹⁰ <http://www.marketwatch.com/news/story/wall-street-employee-owners-shudder/story.aspx?guid=%7BCF92C60B-E7A9-46E5-9CD6-1D074D73B18E%7D>, accessed December 1, 2008.

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²⁴ Silverman, "Titan of the Nitty-Gritty."

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²⁶ Shawn Tully, "Jamie Dimon's SWAT Team," *Fortune*, September 15, 2008, p. 72. SIVs typically borrowed by issuing short term commercial paper at a low interest rate, using the resulting funds to buy long term securities paying a higher interest rate, and profiting on the difference. Though sponsored, packaged, and serviced by the banks, SIVs were not formal bank obligations, and as such did not have to be carried on bank balance sheets. When the market for short term debt dried up in September 2008, some banks let the SIVs go bankrupt, while others that chose to stand behind the SIVs funded them from their balance sheets.

²⁷ *Ibid.*, p. 72.

²⁸ *Ibid.*, p. 74.

²⁹ *Ibid.*

³⁰ JP Morgan Chase & Co., 2007 Form 10-K (New York: JP Morgan Chase, 2008), p. 134.

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