

Banking Industry Meltdown: The Ethical and Financial Risks of Derivatives

INTRODUCTION

The 2008–2009 global recession was caused in part by a failure of the financial industry to take appropriate responsibility for its decision to utilize risky and complex financial instruments. Corporate cultures were built on rewards for taking risks rather than rewards for creating value for stakeholders. Unfortunately, most stakeholders, including the public, regulators, and the mass media, do not always understand the nature of the financial risks taken on by banks and other institutions to generate profits.

Problems in the subprime mortgage markets sounded the alarm in the 2008–2009 economic downturn. Very simply, the subprime market was created by making loans to people who normally would not qualify based on their credit ratings. The debt from these loans was often repackaged and sold to other financial institutions in order to take it off lenders' books and reduce their exposure. When the real estate market became overheated, many people were no longer able to make the payments on their variable rate mortgages. When consumers began to default on payments, prices in the housing market dropped and the values of credit default swaps (the repackaged mortgage debt, also known as CDSs) lost significant value. The opposite was supposed to happen. CDSs were sold as a method of insuring against loss. These derivatives, investors were told, would act as an insurance policy to reduce the risk of loss. Unfortunately, losses in the financial industry were so widespread that even the derivative contracts that had been written to cover losses from unpaid subprime mortgages could not be covered by the financial institutions that had written these derivatives contracts. The financial industry and managers at all levels had become focused on the rewards for these transactions without concerns about how their actions could potentially damage others.

In addition to providing a simplified definition of what derivatives are, this case allows for a review of questionable, often unethical or illegal, conduct associated with a number of respected banks in the 2008–2009 financial crisis. First, we review the financial terminology associated with derivatives, as they were an integral part of the downfall of these financial institutions. Derivatives were, and still are, considered a legal and ethical financial instrument when used properly, but they inherently hold a lot of potential for mishandling. When misused, they provide a ripe opportunity for misconduct.

To illustrate the types of misconduct that can result, this case employs a number of examples. First, we examine Barings Bank, which ceased to exist because of a rogue trader using derivatives. Next, we look at United Bank of Switzerland (UBS) and its huge losses from bad mortgages and derivatives. Bear Stearns, an investment bank that suffered its demise through derivatives abuse, is the third example. Finally, Lehman Brothers is an investment bank that was involved with high-risk derivatives that also led to its bankruptcy. At the conclusion of this case, we examine the risk of derivatives and potential ethical risks associated with the use of these instruments in the financial industry.

DERIVATIVES DEFINED

Derivatives are financial instruments with values that change relative to underlying variables, such as assets, events, or prices. In other words, the value of derivatives is based on the change in value of something else, called the *underlying* trade or exchange.

The main types of derivatives are futures, forwards, options, and swaps. A *futures* contract is an agreement to buy or sell a set quantity of something at a set rate at a predetermined point in the future. The date on which this exchange is scheduled to take place is called the delivery, or settlement, date. Futures contracts are often associated with buyers and sellers of commodities who are concerned about supply, demand, and changes in prices. They can be traded only on exchanges. Almost any commodity, such as oil, gold, corn, or soybeans, can have a futures contract defined for a specific trade.

Forwards are similar to futures, except they can be traded between two individuals. A forward contract is a commitment to trade a specified item at a specific price in the future. The forward contract takes whatever form to which the parties agree.

An *option* is a less binding form of derivative. It conveys the right, but not the obligation, to buy or sell a particular asset in the future. A *call option* gives the investor the right to buy at a set price on delivery day. A *put option* gives the investor the option to sell a good or financial instrument at a set price on the settlement date. It is a financial contract with what is called a *long position*, giving the owner the right but not the obligation to sell an amount at a preset price and maturity date.

Finally, *swaps* live up to their name. A swap can occur when two parties agree to exchange one stream of cash flows against another one. Swaps can be used to hedge risks such as changes in interest rates, or to speculate on the changing prices of commodities or currencies. Swaps can be difficult to understand, so here is an example. JP Morgan developed CDSs that bundled together as many as 300 different assets, including subprime loans. Credit default swaps were meant as a form of insurance. In other words, securities were bundled into one financial package, and companies such as JP Morgan were essentially paying insurance premiums to the investors who purchased them, who were now on the hook if payments of any of the securities included in the CDSs did not come through.

As mentioned before, the value of derivatives is based on different types of underlying values, including assets such as commodities, equities (stocks), bonds, interest rates, exchange rates, or indexes such as a stock market index, consumer price index (CPI), or even an index of weather conditions. For example, a farmer and a grain storage business enter into a futures contract to exchange cash for grain at some future point. Both parties have reduced a future risk. For the farmer it is the uncertainty of the future grain price, and for the grain storage business it is the availability of the grain at a predetermined price.

Some believe derivatives lead to market volatility because enormous amounts of money are controlled by relatively small amounts of margin or option premiums. The job of a derivatives trader is something like a bookie taking bets on how people will bet. *Arbitrage* is defined as attempting to profit by exploiting price differences of identical or similar financial instruments, on different markets, or in different forms. As a result, derivatives can suffer large losses or returns from small movements in the underlying asset's price. Investors are like gamblers in that they can bet for or against the price (going up or down) and can consequently lose or win large amounts.

BARINGS BANK

Barings Bank, which had been in operation in the United Kingdom for 233 years, ceased to exist in 1995 when a futures trader named Nick Leeson lost approximately \$1.4 billion in company assets. The extinction was due, in part, to a large holding position in the Japanese futures market. Leeson, chief trader for Barings Futures in Singapore, accumulated a large number of opening positions on the Nikkei Index. He then generated losses in the first two months of 1995 when the Nikkei dropped more than 15 percent. To try and recover these losses, Leeson placed what is called a short “straddle” on the Singapore and Tokyo stock markets. He was betting that the stock market would not move significantly in the short term. This strategy is risky but can be profitable in stable markets. However, when the Kobe earthquake hit and sent the Japanese stock market plummeting, Leeson lost a lot of money. He did not, however, change his approach. In fact, Leeson tried to cover his losses through a series of other risky investments that, instead, only increased the losses. When he finally quit his job, Leeson sent a fax to his manager, stating “sincere apologies for the predicament that I have left you in.” Barings was purchased by ING, a Dutch bank for £1 (approximately \$1), which then sold it under the name Baring Asset Management (BAM) to MassMutual and Northern Trust in 2005.

Nick Leeson's life is a rags-to-riches tale. Son of a plasterer, he started his career in 1984 as a clerk with royal bank Coutts and later worked briefly for Morgan Stanley. He then got a position in operations at Barings, and later was transferred to Jakarta. Leeson worked in a back office solving clients' problems of wrongly denominated certificates and difficulties of delivery. Before long, Leeson was appointed manager of a new operation in the futures markets on the Singapore Monetary Exchange (SIMEX). Leeson had the authority to hire traders and staff and to sell six financial products, but his main business was doing inter-exchange arbitrage or “switching.” Switching is betting on small differences between contracts by buying and selling futures simultaneously on two different stock exchanges. For example, if a contract was worth the equivalent of \$3 in London and \$2.75 in Singapore, Leeson would buy in Singapore and sell in London, making a 25-cent profit.

The key to Leeson's strategy in the 1980s was the knowledge that one stock market was slower in processing trades than the other. To hide any bad bets, Leeson created an error account (named 8888 for its auspiciousness in Chinese numerology) for his losses. Because no one could see the losses hidden by this account, Leeson was widely regarded as a brilliant trader. He had assured Barings that he was not trading with company money and that all the positions were perfectly hedged and virtually risk-free. Barings managers had little knowledge in trading and did not suspect Leeson of deception. Based on their trust, Barings put a billion dollars into Leeson's account and made no attempt to check his statements. All it took to bring down this house of cards was one earthquake.

When the Kobe earthquake hit in 1995, Leeson's luck finally ran out. He fled to Malaysia, Thailand, and then Germany, and was finally arrested for fraud in Frankfurt. He was extradited back to Singapore and sentenced to six-and-a-half years in Singapore's Changi prison where he was diagnosed with colon cancer and divorced by his wife. During that time, Leeson wrote *Rogue Trader: How I Brought Down Barings Bank and Shook the Financial World*, which was later made into a movie. He was released from prison in 1999. Although he has tried to atone for his actions, to many he is still considered to be the rogue trader who, through his misuse of derivatives, destroyed the United Kingdom's oldest bank.

UBS

United Bank of Switzerland (UBS) is a diversified global financial services company, headquartered in Switzerland. It is the world's largest manager of private wealth assets and the second-largest bank in Europe with overall invested assets of approximately \$1.3 trillion.

In 2000, UBS acquired PaineWebber Group Inc. to become the world's largest wealth management firm for private clients. Three years later, all UBS business groups rebranded under the UBS name as the company began operating as one large firm. As a result of the rebranding, UBS took a \$1 billion write-down for the loss of goodwill associated with the retirement of the PaineWebber brand. (Write-downs represent a reduction in an asset's book value.) UBS is no longer an acronym but is the company's brand name. Its logo of three keys stands for confidence, security, and discretion. UBS has offices in the world's financial centers in 50 countries, and employs approximately 65,000.

In the late 2000s, UBS came under scrutiny for questionable practices. In 2008, Internal Revenue Service investigators asked for the names of some 20,000 American clients suspected of hiding as much as \$20 billion in assets to avoid at least \$300 million in federal taxes on funds in offshore accounts. The issue is complicated because using offshore accounts is not illegal in the United States, but hiding income in undeclared accounts is. However, Switzerland does not consider tax evasion a crime, and using undeclared accounts is legal.

The U.S. Justice Department subsequently filed a lawsuit against UBS, charging them with helping American clients open Swiss bank accounts to evade taxes. UBS agreed to pay \$780 million to settle the lawsuit in 2009. UBS also agreed to provide the Internal Revenue Service with nearly 4,500 names of American account holders. The measure was officially approved by Switzerland's Parliament a year later. While some herald the decision as a way to crack down on tax evasion, others oppose the measure as they believe this will put an end to bank secrecy.

However, tax evasion accusations were not the only problems UBS faced. Like other banks, it suffered from the subprime crisis due to its heavy dependence on derivatives and mortgage-related securities. By the end of 2008, the bank had been forced to write-down over \$46 billion in losses on bad mortgages and derivatives. The bank blamed weak risk controls and risky investment dealings for its loss.

In 2008, UBS appealed to the Swiss government, which doled out an aid package of approximately \$59.2 billion to the ailing bank. In exchange, UBS agreed to forgo nearly \$27.7 million in pay to the company's top three executives. From then on, the bank promised, bonuses would depend more on the bank's performance, a decision that came to the relief of those who had criticized what they saw as the bank's excessive pay for CEOs. Additionally, some CEOs who resigned promised to return some of the compensation they received. UBS appears to be taking the topic of compensation seriously, as evidenced by the fact that the bank reduced its bonus pool by ten percent after less-than-stellar profits in 2010. According to CEO Oswald Gruebel, UBS is working on striking the right balance between compensation, capital expenditures, and investor returns.

BEAR STEARNS

Unlike many companies that existed before the Great Depression of 1929, Bear Stearns thrived through much of the twentieth century. Unfortunately, in the early twenty-first century, Bear Stearns encountered another severe economic crisis that it did not survive. JP Morgan acquired the company in March 2008 after Bear Stearns lost billions in the subprime crisis.

Bear Stearns was a global investment bank and a securities and brokerage firm. Located in New York City, it was founded as an equity trading-house in 1923 by Joseph Bear, Robert Stearns, and Harold Mayer. With an initial \$500,000 in capital, the company thrived in the twenties and even in the post-stock market crash of the 1930s. In fact, the company did so well that while other banks were failing by the dozens, Bear Stearns was able to pay out bonuses. By 1933, the company employed seventy-five people and opened its first regional office in Chicago. About twenty years later, the company began operating international offices. Bear Stearns continued to grow and prosper, and in 1985 it formed a holding company known as Bear Stearns Companies, Inc. In 2002, while other firms were struggling, Bear Stearns was the only securities firm to report a first-quarter profit increase. It also began focusing more on the housing industry, which would spell out its doom a mere five years later.

In 2005, Bear Stearns was listed as *Fortune* magazine's "America's Most Admired Securities Firm" for the second time in three years. At the end of 2006, the company's total capital was \$66.7 billion and its assets totaled \$350.4 billion. The subprime crisis first hit Bear Stearns early in 2007. Previously, the bank had seen a fifty-two-week high of \$133.20 per share. By late 2007, two Bear Stearns hedge funds had collapsed, the company's third-quarter profit had decreased by 61 percent, and it had written off \$1.2 billion in mortgage securities. In 2008, the Federal Reserve attempted to bail out the company, but it could not save Bear Stearns. JP Morgan agreed to buy the company for a mere \$2 per share, which was a decrease of \$131 per share in about a year. After lawsuits and intense negotiations, JP Morgan raised the buying price to \$10 per share.

What caused a long-standing institution like Bear Stearns to fall? Its investment in subprime loans was a significant factor, but derivatives could also be a major reason. Since its failure, information has come out that Bear Stearns widely misrepresented clients' information on loan applications in order to make them appear more desirable mortgage recipients. Once these risky subprime loans were given out, the company packaged and sold the debt as securities to other institutions. In this way, Bear Stearns managed to keep the risky subprime lending debt off its books and moved the onus to investors. Bear Stearns had derivatives amounting to \$13.4 trillion at the end of 2007. These securities were backed by cash flow from the loans, but that only works when loan payments come in as they are supposed to.

Since its failure, the Bear Stearns scheme has been exposed as a risky "house of cards." Executives have been charged with misleading investors by concealing that hedge funds were failing as the mortgage market crumbled. Investors lost \$1.6 billion in assets. Executives Ralph R. Cioffi and Matthew M. Tannin were arrested. Although they were acquitted of criminal fraud charges, the two men face a civil lawsuit from the Securities and Exchange Commission.

LEHMAN BROTHERS

Another firm that had been around for a long time, more than 150 years in this case, found that it could not survive the subprime mortgage crisis either. In 2008, Lehman Brothers, the fourthlargest investment bank in the United States, filed for chapter 11 bankruptcy.

Lehman Brothers was founded by Henry, Emanuel, and Mayer Lehman, German immigrants who migrated to America in the mid-nineteenth century. It opened its first store in Montgomery, Alabama, in 1850. As cotton was the cash crop of the South, the brothers often accepted payment in cotton and began acting as brokers for those who were buying and selling the crop. The brothers' business expanded quickly, and they opened an office in New York in 1858. Soon they had transformed from brokerage to merchant banking, and Lehman Brothers became a member of the New York Stock Exchange in 1887.

The company continued to thrive even through the stock market crash of 1929. It advised and financed several other businesses, including Halliburton, Digital Equipment, and Campbell Soup. The firm opened its first international office in Paris in 1960. After going public in 1994, Lehman Brothers joined the S&P 100 Index in 1998 and watched its stock rise to \$100 per share by the early 2000s. In 2007, the year the subprime crisis began, Lehman Brothers was ranked as number one in the “Most Admired Firms” list by *Fortune* magazine. CEO Richard Fuld was placed on the list of the world’s thirty best CEOs. For its third quarter, Lehman Brothers possessed assets worth \$275 billion.

Then the subprime mortgage crisis came to a head. By late 2008, the company’s shares had lost 73 percent of their value. Even as the company asked for government aid, its executives continued to pocket millions of dollars in bonuses, an action that caused public outrage. The company filed for bankruptcy that year, with \$613 billion in debt. Company shares rapidly fell 90 percent to 21 cents per share. The bank received some relief after Barclay PLC agreed to purchase much of Lehman Brothers for \$1.75 billion. The purchase of Lehman Brothers was welcome news for some workers, as many of them thought they were going to lose their jobs. Yet this did little to help many shareholders, who had already seen their stocks reduced to nothing. Even CEO Fuld had lost \$600 million between 2007 and 2008.

What caused such a well-established company like Lehman Brothers to go belly-up? Its dependence on subprime mortgages was the central factor. Additionally, some are accusing the firm of unethical behavior in its dealings with First Alliance Mortgage, a company accused of “predatory lending.” Lehman Brothers helped bundle millions of dollars in mortgages into derivatives instruments for First Alliance and helped make them seem like appealing investment vehicles for Wall Street. When the loans defaulted, these investments contributed to the massive financial crisis.

Lehman Brothers had also acquired several credit default swaps (CDSs), a type of derivative contract. The company had acquired large amounts of subprime mortgage debt and other lower-rated assets when securitizing the underlying mortgages. Even though Lehman had closed its subprime mortgage division in 2007, it maintained much of its subprime mortgage liability through 2008, resulting in large losses from the collapse of the subprime market. Creditors of Lehman Brothers, AIG among them, had taken out CDSs to hedge against the case of a Lehman bankruptcy. The estimated amount of settling these swaps stands at \$100 to \$400 billion. Additionally, many major money market funds had significant exposure to Lehman Brothers. Lehman’s bankruptcy caused the investors in these money market accounts to lose millions.

Lehman Brothers has also been accused of ignoring warning signs from employees. A letter dated May 2008 from Lehman official Matthew Lee to finance chief Erin Callan claimed that Lehman Brothers was engaging in improper accounting practices. Lee was later fired from the company, although Lehman maintained that the firing resulted from workforce cuts.

Naturally, the collapse of Lehman Brothers has led to a string of lawsuits and investigations as officials struggle to pinpoint who is at fault. In March 2010, bankruptcy examiner Anton Valukas released a 2,200-page report suggesting some of the reasons for the collapse. The report identified Lehman Brothers’ extensive use of what was termed “Repo 105” as a major contributor. The use of repo trades allowed Lehman Brothers to move \$50 billion in debt off the balance sheet. New York’s former attorney general Andrew Cuomo filed a lawsuit against accounting firm Ernst & Young, which approved the transactions, for allegedly helping Lehman Brothers to hide the debt. Ernst & Young denied participating in any fraud and claimed that the transactions it approved were legal. Calpers, the largest pension fund in the United States, is also filing a lawsuit against Lehman Brothers, alleging that top executives misled the company about Lehman Brother’s financial health before the collapse.

These are just a few examples of how the fall of Lehman Brothers has had severe effects on businesses. Although Lehman Brothers has unveiled a plan to pay back creditors \$60 billion (which translates to about 18.6 cents on the dollar), the serious repercussions its conduct has had upon the business world leaves a negative legacy for this once great company.

ETHICAL ISSUES WITH DERIVATIVES

Derivatives (especially swaps) expose investors to counter-party risk. For example, if a business wants a fixed-interest loan but banks only offer variable rates, the business swaps payments with another business that wants a variable rate, creating a fixed rate for the first business. However, if the second business goes bankrupt, the first business loses its fixed rate and has to pay the variable rate. If interest rates increase to the point where the first business cannot pay back the loan, it causes a chain reaction of failures.

Derivatives also can pose high amounts of risk for small or inexperienced investors. Because derivatives offer the possibility of large rewards, they are attractive to individual investors. However, the basic premise of derivatives is to transfer risk among parties based on their willingness to assume additional risk, or hedge against it. Many small investors do not comprehend this until they lose. As a result, a chain reaction leading to a domestic or global economic crisis can occur.

Warren Buffett, a well-known investor, has stated that he regards derivatives as “financial weapons of mass destruction.” Derivatives have been used to leverage the debt in an economy, sometimes to a massive degree. When something unexpected happens, an economy will find it very difficult to pay its debts, thus causing a recession or even depression. Marriner S. Eccles,

U.S. Federal Reserve chair from 1934 to 1948, stated that an excessively high level of debt was one of the primary causes of the Great Depression.

Some experts believe derivatives have significant benefits as well. Although it is always the case with derivatives that someone loses while someone else gains, under normal circumstances, derivatives should not adversely affect the economic system because it is not a zero-sum game—derivatives theoretically allow for absolute economic growth. In other words, while one party gains in relation to the other, both gain relative to their previous positions. Former Federal Reserve Board chair Alan Greenspan commented in 2003 that he believed that derivatives softened the impact of the economic downturn at the beginning of the twenty-first century, and UBS believed that derivatives were part of its future.

However, derivatives have a checkered history. In the 1900s, derivatives trading and bucket shops were rampant. Bucket shops are small operators in options and securities that lure clients into transactions and then flee with the money, setting up shop elsewhere. In 1922 the federal government attempted to stop this practice with the Grain Futures Act, and in 1936 options on grain futures were temporarily banned in the United States as well as in other countries. In 1972 the Chicago Mercantile Exchange (the Merc) created the International Monetary Market, allowing trading in currency futures, representing the first futures contracts associated with nonphysical commodities. In 1975 the Merc introduced the Treasury bill futures contract that was based purely on interest rate futures. In 1977 and 1982, T-bond (Treasury) futures contracts, Eurodollar contracts, and stock index futures were created. The 1980s marked the beginning of swaps and other over-the-counter derivatives. Soon every large, and even some not-so-large, corporations were using derivatives to hedge a wide variety of investment risks. Derivatives soon became too complex for the average person to understand, and Wall Street turned to mathematicians and physicists to create models and computer programs that could analyze these exotic instruments.

In the end, the ethical issues in using derivatives hinge on the managers and traders who use these highly complex and risky financial instruments. Derivatives are used in sales transactions where there is an opportunity of great financial rewards. However, managers and traders often do not take into account the level of risk for investors or other stakeholders. If the risk associated with a derivative is not communicated to the investor, this can result in deception or even fraud. It has become apparent that the use of derivatives such as credit default swaps became so profitable that traders and managers lost sight of anything but their incentives for selling these instruments. In other words, financial institutions were selling what could be called defective products because the true risk of these financial instruments was not understood by or disclosed to the customer. In some cases, these defective products were given to traders to sell without any due diligence from the company as to the level of risk.

CONCLUSION

While derivatives, including credit default swaps, were not the only cause of the failure of the banks discussed in this case, the use of these instruments by decision makers resulted in these banks taking enormous risks. In hindsight, these actions seem to be unwise and unfair to stakeholders. An ethical issue relates to the level of transparency that exists in using complex financial instruments to create profits for customers. If purchasers do not understand the potential risks and the possibility of the loss of their money, then a chance for deception exists.

In the banks examined in this case, there is no doubt that a number of key decision makers not only pushed the limits of legitimate risk-taking, but also engaged in manipulation, and in some cases fraud, to deceive stakeholders.

At this point, it is doubtful whether banks have learned enough about the 2008–2009 financial crises to avoid future failures. Investors and shareholders need to start looking beyond short-term results and understand the value of long-term thinking. CEOs and boards of directors need to develop a transparent business model that balances risk with market opportunity. The ethical risks of lower-level managers using deception and manipulation to create profits, often through loopholes and unregulated areas of decision making, are high. Through ethical leadership and compliance programs, all these risks can be minimized.

QUESTIONS

1. What are the ethical risks associated with derivatives?
2. What is the difference between making a bad business decision associated with derivatives and engaging in unethical conduct using derivatives?
3. What kinds of investment decisions drove Barings Bank, UBS, Bear Stearns, and Lehman Brothers to financial disasters?
4. How can an ethical corporate culture with adequate internal controls, including ethics and compliance policies, prevent future disasters in financial companies?

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