# When Genius Failed Study Guide

### When Genius Failed by Roger Lowenstein

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## **Plot Summary**

When Genius Failed by Roger Lowenstein is the story of the Long Term Capital Management hedge fund from its creation to its fall. The fund was created by John Meriwether after he departed from Salomon Brothers and it resulted in tremendous wealth for Meriwether, the partners, and other investors while it lasted. When they fell, they fell hard and fast at the end.

The book gives a look into the world of international investment banking and bond and equities trading. Meriwether and his cronies developed the concept of arbitrage, or hedge trading. This was trading based on the fact that in well behaved markets, the spreads between cash and futures converge as the contracts come to expiration. As long as the markets behaved in this way, the traders made hundreds of millions of dollars. Arbitrage trading was considered to be very low risk.

Meriwether developed the Arbitrage department at Salomon Brothers, hiring academics to develop mathematical and computerized models to predict prices based on market volatility. When Meriwether left Salomon, he basically duplicated the set-up he had there and hired away many of the traders and staff to form Long-Term. The hedge fund was set up with a system of feeders as a Cayman Islands partnership and had a Long-Term Capital Management company which managed the investments of the partners.

Hedge funds were not subject to stringent reporting requirements at the time, so they operated without even letting their investors know what the portfolio's invested in or what their exposure was. The investors didn't really care because of the amount of money they were making. When it became difficult to place positions, some of the investors had to sell, which left the partners and a few others bearing the burden when the market spreads kept widening.

The book does a lot of explaining about how bond and equity markets function. Lowenstein explains the technical jargon and how positions like swaps were accomplished. He also explains the reasoning—who wins, who could lose, and why. All of these explanations of the working of the international capital markets are done within the framework of the story of the Long-Term hedge fund.

The book is interesting reading even though it is a little technical. It helps if the reader has some knowledge of financial markets, although it is not necessary. But it is a fascinating story of how a group of men went from fantastic wealth to near bankruptcy in five short weeks.



### Meriwether

#### **Meriwether Summary and Analysis**

"If there was one article of faith that John Meriwether discovered at Salomon Brothers, it was to ride your losses until they turned into gains" (Chap. 1, p. 4). When he was working at Salomon Brothers in 1979, a dealer from J.F. Eckstein & Co. came to them asking for help. He was trading Treasury bill futures, and in the kind of position he had, he needed a relative change in the two prices.

Eckstein had bought bill futures and sold the cash bills. The way this kind of arbitrage position works is the trader makes money on one position and loses money on the other position. As long as the futures price rises less than the cash price, the trader gains. But this time, for some reason, the future price rose more than the cash price. Thinking the market would behave in it usual way, he increased his position and the price gap widened. He was now confronted with margin calls.

The Salomon partners agreed to assume Eckstein's position because the prices had to converge before the contract expiration. The price gap continued to widen and Salomon experienced big losses. The group that made the deal was told they'd be fired if the prices didn't converge. They eventually converged and Salomon made a lot of money. Meriwether was made a partner and his group was given the authority to do spread trades.

In the early 1970s, bond trading was not exciting to traders. Bonds were usually held as an investment for the returns they offered until the international monetary crises of the early 1970s when they lost their value. Added to this was the Penn Central Railroad bankruptcy. When the system of fixed exchange rates and interest rates ended, exchanges developed many new trading contracts. The introduction of the computer facilitated all of this.

It is during this period that Meriwether arrived in New York and found that he liked the bond market. He traded government bonds for Salomon and made millions of dollars for them. In 1977, he founded the Arbitrage Group and specialized in convergence trades. The convergence had to occur but it might come too late for the trader.

Meriwether made the decision to hire smart traders, those who were professors with Ph.d's. They developed the computer models for the bond market. These models simplified the market relationships and were used by the traders to help in their decision-making. Meriwether's arbitrageurs felt confident in their trading because of these models.

Meriwether was liked by his staff. They dined together, played golf together, and vacationed every year in Antigua. They basically remained separate from the rest of the firm. He had faith in them and they had faith in him. Eventually Meriwether arranged a



compensation plan for them that was better than the rest of the firm. The Arbitrage Group felt that they were entitled to a bigger share of the profits since they made most of the money for the firm.

When a scandal occurred involving a former member of the Arbitrage Group, Paul Mozer, Gutfreund was forced to resign. Warren Buffet, a member of the Salomon board, became temporary CEO. John Meriwether was also asked to resign as a result of the affair, and he did. The members of the Arbitrage Group tried to have him reinstated. Eventually, Buffet agreed but Meriwether didn't.



## **Hedge Fund**

#### **Hedge Fund Summary and Analysis**

"And there were plenty of rich people about. Thanks in large part to the stock market boom, no fewer than 6 million people around the world counted themselves as dollar millionaires, with a total of \$17 trillion in assets. For these lucky 6 million, at least, investing in hedge funds had a special allure" (Chap. 2, p. 23).

Value funds were a popular investment during the 1990s. They were not subjected to most of the reporting requirements that mutual funds were. They didn't have to register with the Securities and Exchange Commission (SEC). Value funds function as investment pools for the rich and are not regulated. They must make reports to the Commodities Futures Trading Commission (CFTC).

The hedge fund is like a club of limited investors. Legally, there cannot be more than ninety-nine investors worth one million dollars each or five hundred with a portfolio of five million dollars. Investors can also be institutions. These funds were basically unknown to the public until the 1980s, when George Soros's Quantum Fund forced a pound devaluation in England and made over a billion dollars.

Hedge funds are lucrative for the managers who charge hefty fees and take a percentage of the profits. Hedge funds, like Long-Term, play the price difference between two markets, which is a low risk strategy. Since the markets move in the same direction, it doesn't matter if they rise or fall because the loss in one market is offset by the gain in the other market.

Meriwether worked with Merrill Lynch to raise the capital he required for Long-Term. His goal was to duplicate the set up of the Arbitrage Group. Meriwether needed to raise two billion five hundred dollars. They would charge high fees and take one quarter of the profits. Long-Term would also require their investors to commit for a minimum period of three years. J.M. then began to hire his old team away from Salomon. He hired Eric Rosenfeld, Victor Haghani, and Greg Hawkins. He also hired Robert C. Merton away from Harvard. Merton was considered the best in his field and developed the area of continuous time finance.

Long-Term planned to borrow by selling bonds to one group, and it would lend when it bought bonds from another group. Merton was not the only well-known academic ground breaker that J.M. hired. In 1993, he hired Myron Scholes, who developed the Black-Scholes model. Long-Term now had two of the most brilliant minds in the field of finance on their payroll.

They made sales calls in fall of 1993. The investors they saw were in different parts of the world—in America, Europe, South America, the Orient, and Middle East. Some institutions wouldn't participate because of the high fees and the minimum of \$10 million



per investor. There wasn't much interest among the potential investors so they next tried foreign banks who would invest one hundred million dollars. Merrill devised a plan where Long-Term would be able to solicit investors from other tax and legal domains. This would be a system of feeders.

The feeders would allow individual investors as well as institutional investors. The money would then go to a central fund in the Cayman Islands called the Long-Term Capital Portfolio (LTCP). This was managed by the Long-Term Capital Management, the Delaware partnership owned by Meriwether. The partners were actually in Connecticut and London. They planed to diversify the fund so that no one part of the market could affect the total fund. The fund started to receive commitments for money in 1993, and Meriwether hired David W. Mullins away from the Federal Reserve System. This gave the fund more respectability among investors and the fund began to gain some large investors.



## On the Run

#### **On the Run Summary and Analysis**

In 1994, the Fed raised interest rates and bond prices fell more than they should have. The thirty year Treasury bond dropped sixteen percent, which raised its yield. There was panic in the markets and investors trying to sell widened the spread further. Michael Steindardt was one of the traders that was caught. "The real culprit in 1994 was leverage. If you aren't in debt, you can't go broke and can't be made to sell, in which case 'liquidity' is irrelevant. But a leveraged firm may be forced to sell, lest fastaccumulating losses put it out of business. Leverage always gives rise to this same brutal dynamic, and its dangers cannot be stressed too often" (Chap. 3, pp. 42-43).

With their style of trading, Long-Term was in a better position than most other firms. It made good trades so the company made money. Their assets were structured in such a way that one did not affect the other. They would buy one bond and sell another, waiting for the prices to converge. This kind of trading has a very low level of risk. The Long-Term style was to buy off-the-run bonds and then loan them to other Wall Street firms. This cash then is used as collateral on the bonds that it borrowed. These loans that are backed by collateral are called repo financing. Thus, it didn't use any of its own money. When people buy a bond, they pay one percent of face value. This is known as the haircut and it gives the seller a little protection if the bonds rise.

Long-Term had a policy of refusing to pay the haircut. If the firm wouldn't waive the haircut, Long-Term wouldn't do business with them. The banks held collateral and Long-Term settled every day, so they had no trouble getting money from the banks. When Long-Term placed a trade they did it by placing each leg with a different brokerage house. Its safest investments were convergence trades where convergence was a sure thing. Relative value trades were trades where convergence was expected but there was no guarantee.

In 1993, there was a great deal of refinancing in America, most of it in the mortgage market. Mortgage pools became popular at this time. They were grouped in interest payment pools and principal payments pools. The interest only securities, or IOs, fall when more people refinance and rise when fewer people refinance. With the surge in refinancing in 1993, the IOs fell in value. The Long-Term management bought them heavily for their own accounts.

Long-Term also bought IOs in 1994, based in their models which indicated they should buy. They bought two million dollars worth. Long-Term made several hundred million dollars on the deal and found that the best place to look for the kind of trades they specialized in was in international bond markets. These markets were basically unexploited and weren't as efficient as American markets which made more profit opportunities available. Haghani ran the London office, which was located in Mayfair.



Haghani did his biggest trading in Italy, where interest rates were high and there was fear that the government would default. The interest rate spread was eight points over German and there was a lot of interest in bonds there. They both fixed rate and floating rate bonds and strange tax laws and the Italian government had a lower rating than private banks did. It was a risky investment but if the political and financial situation straightened out, investors would make billions. Haghani bought fixed-rate government bonds and sold them on swaps. He also bought floating-rate government paper which was balanced.

The hedge fund was unregulated and Long-Term did not reveal the extent of their Italian position to their investors. They performed their own monitoring functions since there were no independent monitors. The monitoring function was performed by the risk-management committee, and as long as the models said that Italy was a good deal, the traders kept trading. Many of Long-Term's rivals were out of the Italian market before Long-Term began to trade there.



## **Dear Investors**

#### **Dear Investors Summary and Analysis**

"Long-Term earned 28 percent in 1994, its first year of operation. After fees to the partners, its investors' accounts rose by 20 percent. In a year in which the average investor in bonds had lost money, this was nothing short of phenomenal. In October, when it was clear that the fund would finish with impressive numbers, Meriwether warned his investors not to count on a repeat. Long-Term would very likely have years in which it lost money, J.M. stressed: 'It is clear that significant losses can occur even over a one-year horizon.' All good money managers write such letters. If they understand their business, they know they can have bad years. If they are honest, they let their investors know it or at least try to temper their expectations" (Chap. 4, p. 61).

In the letter, Meriwether even calculated the odds of a loss occurring. According to the letter, it was difficult to lose money on Long-Term investments. This was explained in quantitative terms. They based their calculations on the variance or volatility in bond prices. Risk and price volatility are quantifiable, so they constantly watched the numbers and made adjustment when they had to. Their big concern was limiting risk, and they did this buy buying and selling to maintain their target.

Black and Scholes viewed price changes as random events. This means that they didn't follow any patterns. It was believed that it was possible to derive the typical amount of change that would occur during a given period. This was done through the use of calculus and computer models. The underlying assumption of the Black-Scholes model is that volatility is constant and it is based on perfect arbitrage.

Rosenfeld and his friend Mitchell Kapor developed financial software for predicting prices and gambling outcomes. They formed a small company and made hundreds of thousands of dollars. Kapor went on to found Lotus Development Corporation. He had wanted Rosenfeld to join him but Rosenfeld was too interested in the financial markets.

Long-Term followed the Value-at-Risk models, as the Merton and Black-Scholes models are called. They would predict how much could be lost on an average day, but they couldn't tell you if the market was to collapse. The models were not imperfect, as the traders knew. But based on this philosophy of trading, Long-Term continued to grow and came through the Mexican crisis without any problems, and other investors were attracted to the Italian markets. The Long-Term Fund continued to take bigger positions in the market.



## Tug-of-War

#### **Tug-of-War Summary and Analysis**

"By the spring of 1996, Long-Term had an astounding \$140 billion in assets, thirty times its underlying capital. Though still unknown to 99 percent of Americans, Long-Term was two and a half times as big as Fidelity Magellan, the largest mutual fund, and four times the size of the next largest hedge fund. Meriwether, Hilibrand, Haghani, and company now controlled more assets than Lehman Brothers and Morgan Stanley and were within shouting distance of Salomon. Though they had only a couple dozen traders, their fund - barely two years old - was bigger than some of Wall Street's age-old institutions" (Chap. 5, p. 80).

Even though there were some reporting requirements that applied to the hedge fund, they were as stringent as with other traded items. This meant that not much was known about Long-Term. It was almost impossible to determine the assets of the fund. The banks and investors knew only their own exposure, but because they made between one hundred to two hundred million in fees, they were clamoring to be a part of Long-Term. Brokerage firms charged Long-Term lower fees hoping to obtain more of the fund's business.

Long-Term negotiated with Chase to finance their credit. They really wanted a partner that would provide cash whenever they needed it. The fund wanted to buy a certain warrant, or option, from the bank but it was too risky for Chase. The bank's exposure would increase as the fund continued to grow and could only hedge by buying into the fund. The warrant would give the fund partners a way to leverage their own personal fortunes. They tried the Union Bank of Switzerland. There was some interest among the banks, but nothing was signed by the end of 1996. But Long-Term earned \$2.1 billion dollars that year.



## **A Nobel Prize**

#### **A Nobel Prize Summary and Analysis**

"Whether Long-Term wanted to admit it or not, the secret of bond arbitrage was out. By the late 1990s almost every investment bank of Wall Street had, to some degree, gotten into the game. Most had separate arbitrage desks, with traders specifically assigned to look for opportunities in every nook and cranny of the business. Lured by the scent of the fantastic profits being earned in Greenwich, other banks were reaching for the same nickels as Long-Term. Inevitably, they whittled away the very spreads that had attracted them; thus do free markets punish success" (Chap. 6, p. 96). It was harder to find good profit opportunities because of the number of people doing arbitrage trades.

Meriwether was encouraging his people to look for new territory. The firm with more than five billion dollars in equity in 1997 had to find new markets. They began to look at equities, or stocks and, in particular, paired-shares. This meant they compared ordinary stock with its preferred stock. One side of the pair usually traded at a discount relative to the other side. This represented an arbitrage situation, even though it wasn't a case of perfect arbitrage. They took positions in risk or merger arbitrage where the gamble was on whether the deal would actually close. Stock prices usually rise when a merger is announced. If the deal doesn't go through, the market takes back the gain so there are profits to be made for traders.

When Long-Term traded equities, it avoided the control of Regulation T, which set a fifty percent limit on borrowing, by trading in derivatives. For example, it would arrange a swap agreement with a bank and would pay a fixed yearly interest payment. The bank would pay the amount of profits Long-Term would have earned if it had bought the stock. They weren't violating any laws with these swaps and they avoided all of the disclosure involved in stock trading.

There was very little disclosure required on this kind of trading. Banks piled into the derivatives markets as did the investment banking firms. This began to worry the regulators in the mid-1990s. The hidden derivatives exposure was causing some banks to have financial problems, or to fail. There were no credit limits on hedge funds and this also worried the regulators. Fed Chairman Alan Greenspan favored the removal of all margin rules on the basis that there would be more liquidity in the market without the margin rules.

Wall Street was highly leveraged in the mid-1990s, at the ratio of twenty-five to one. They were making big profits and weren't very eager to limit lending to hedge funds. In fact, the Union Bank of Switzerland decided to give Long-Term the warrant that it wanted. Long-Term paid the bank a premium of \$289 million and the bank promised to pay them any profits that the \$800 million worth of Long-Term would make in the next seven years. The bank bought \$800 million of Long-Term as a hedge and also made a further investment in Long-Term.



Long-Term's model of arbitrage trading came from an academic model. Now some academicians were claiming that arbitrage trading was riskier than they thought. If there were a lot of noise traders or uninformed speculators in the market, they could cause the price to deviate significantly from the true value. This would force a liquidation of positions at market lows. A few weeks after Long-Term negotiated its warrant, market crises began in the currency markets. All of the Asian Tigers had problems in the markets.

Long-Term was told by Merrill Lynch that they would have to take back half of their money. There was excess capacity in the fund. Long-Term told some of their investors that they would have to take back their 1994 investment with interest and all funds invested after that date. This protected the investments of the partners. In October, when Merton and Scholes won the Nobel Prize for economics, markets were failing in Asia and Latin America. This eventually caused a crisis at the New York Stock Exchange and other American exchanges and the massive selling spread to Europe and other world markets. Long-Term broke even during this period instead of sustaining the losses the others did and increased their positions in the volatile Asian markets.

Long-Term moved into plush new headquarters in Greenwich. Right before Christmas, Standard & Poor's downgraded Russian debt.



## **Bank of Volatility**

#### **Bank of Volatility Summary and Analysis**

Long-Term began to short the market in early 1998. The fund maintained its basic trading strategy and this is what would lead them to destruction. The "equity vol" was the signature Long-Term trade and was based on the consistency of volatility. Option prices rise when markets are jumpy. Knowing the option price allows one to estimate the amount of market volatility.

When Long-Term expected prices to fall, they began to short stock index options. Long-Term and other hedge funds felt that prices were too high, so they were selling insurance against the expected falling prices. Long-Term tailor made private options contracts for long-term options that don't trade on exchanges, which increased their risk. Five years is a long time and Long-Term began to make more risky trades as it bet on the US stock market declining. Scholes, Merton, and others warned the firm about making these kinds of trades. Some internal turmoil began at this time.

Investment banking firms were selling bonds for Russia at the time. June, 1998 was the worst month Long-Term had ever had. The interest rate on a government's debt basically determines the swap rate in a country. It was high in the United States in April 1998 and Long-Term was caught off-guard when Salomon suspended its arbitrage operations. Other players did not fill the void as Long-Term had expected and they soon began to face a drain of reserves. July was another flat month for Long-Term's performance. The Russian market began to have problems in August.



## The Fall

#### The Fall Summary and Analysis

"Through the idle of August, Long-Term Capital had been having a bad year, but only a bad year such as any fund, or any capitalistic enterprise, must sooner or later suffer. Its reputation, like its capital, remained intact. Its overall record sparkled, and its name, among the members of the financial cognoscenti who truly knew the firm, often gave rise to the very term "genius". Long-Term was unknown to the general public, but that is how Meriwether and his boys wanted it, and that, of course, is how they expected the fund to remain. They could hardly have had a glimmer of the large, even historic, event in which they were to play a leading role, nor of how radically their fortunes could change. Much less could they have imagined the stunning swiftness with which such events would unfold" (Chap. 8, p. 143). The partners went on vacation with two fifths of \$3.6 billion fund being their own personal investments. They lost it in only five weeks.

The Russians declared a debt moratorium on August 17, shattering the market's belief that nuclear powers never default. Markets around the world began to collapse. There was massive selling, which cost Long-Term millions of dollars. People were shifting into the safer lower risk bonds. On August 21, the huge losses began as a merger arbitrage stock that was held had its merger postponed and the stock fell. That cost Long-Term one hundred fifty million dollars. The partners came home from all over the world.

With the amount of their investment, there was no way that Long-Term could unwind its positions without causing further movements in the market. Long-Term had faith that the spreads would converge but their losses were accumulating faster than their leverage. The partners had to raise money, so they began to make calls on August 24. On August 26, the spread widened further. Long-Term was in the position of not being able to liquidate positions and was losing money very rapidly. Since most of the market participants were trying to get off losing positions, there were few traders to take the other side of the positions.

There was very little trading in bonds at the end of that August. Smaller firms were withdrawing from the hedge fund market and banks were tightening their credit lines. The lack of credit forced the hedge funds to sell, which put more pressure on the markets. Banks began to reveal their losses in the Russian market, but Long-Term was silent on its position and maintained its veil of secrecy.

Long-Term's position continued to worsen and it had \$2.2 billion in capital as its capital dwindled. The fund was losing money faster than it had made it all these years. The partner's management company was also facing financial problems. Forcing their investors to take back their money was now haunting Long-Term, since they needed the cash now. The former investors now did not want to invest. Meriwether kept contacting people looking for money. When August ended, there was almost no trading in the bond markets.



### **The Human Factor**

#### **The Human Factor Summary and Analysis**

Meriwether wrote a letter to his investors at the beginning of September. "As you are all to aware, events surrounding the collapse in Russia caused large and dramatically increasing volatility in global markets throughout August. . . Unfortunately, Long-Term Capital Portfolio has also experienced a sharp decline in net asset value . . . it is down forty-four percent for the month of August, and fifty-two percent for the year-to-date. Losses of this magnitude are a shock to us as they surely are to you, especially in light of the historical volatility of the fund" (Chap. 9, p. 161).

The letter went on to say that the problems began when spreads began to widen in 1998 with Long-Term betting that the spreads would narrow. But panicking investors exited the market, which caused the spreads to further widen. He did not blame his traders for the positions they took during this period. A copy of the letter was obtained by Bloomberg, and it was published it immediately.

The fund still hoped to recover from the debacle. They considered the month of August to be a quirk even as the global crisis continued. Moody's downgraded Brazilian debt which put pressure on the Brazilian currency. The market was still erratic and this is what Long-Term people couldn't explain. Traders did not want to engage on long ranging trades and they more or less tried to stay away from Long-Term.

Bear Sterns notified Long-Term that they would stop clearing Long-Term trades if their assets fell below five hundred million dollars. Long-Term still had to raise money or they would lose their repo lines. The staff was nervous because of their own investments in the fund and that fact that the partners were not giving them information on what was happening. The partners were worried that the staff would begin to quit. The firm was not very liquid. They had to transfer \$38 million from the portfolio to the management fund in order to cover salaries through 1998. This was in the form of a loan. The partners were also borrowing against their investment in the fund.

Meriwether and some of the partners were still optimistic in September. There were some good investment opportunities but they didn't have the money to take advantage of the opportunities. Meriwether even authorized the lowering of fees in an attempt to attract investors.

Long-Term's trading problems weren't just in one market, they were worldwide. It had always assumed the riskier asset, and now that strategy was working against them. They were no longer making money. The only escape hatch open to Long-Term was the revolving credit from Chase. They had a \$900 revolver that they could tap. Most revolving credit agreements had a material adverse change clause, which meant the credit line terminated if there was a sharp deterioration in the borrower's financial situation. This clause had been omitted from the agreement with Long-Term. The



agreement could be terminated if there was a fifty percent decline in Long-Term's equity during an accounting period. Meriwether turned to Jon Corzine of Goldman Sachs for help.

Corzine was open to a deal with Long-Term, but on his own tough terms that amounted to a near take-over. Goldman would loan Long-Term one billion dollars so they could use the money to raise a second billion dollar amount. Long-Term had to pass inspection and Goldman had to raise the money. The inspection meant that Goldman people looked over all of Long-Term's books. Long-Term watched as the market moved further against them after the inspection and accused Goldman of front-running. Goldman was trading against Long-Term on the basis of inside information. Some of their traders were even bragging about it.

It wasn't just Goldman that was trading against Long-Term. The other traders were also. Squeezing Long-Term meant that they eventually would buy back their shorts and the others in the market would make a lot of money. This predatory behavior wasn't to the extent that Long-Term claimed. The other market participants were having financial problems themselves and trading to cover their own positions. The motivation didn't really matter in terms of the outcome for Long-Term. They were refusing to deal with Long-Term.

As the financial decline continued, tension increased within the firm. The partners blamed each other for their position and some weren't even on speaking terms. They were still trying to raise money and were still losing millions of dollars each day. Positions were being juggled to stay ahead of the \$500 million threshold at Bear Sterns, but they were losing ground.

There were three things that Long-Term was hoping for in September: more aid to the IMF, an IMF loan to Brazil, and a lowering of interest rates by the Fed. Long-Term hoped that the markets would turn if these things happened. Bankruptcy was out of the question for Long-Term since it would be seen as default. Derivative parties could still claim collateral.

Long-Term now needed four billion dollars as a rescue measure. Their capital was down to \$1.5 million. Even though they were beginning to make money trading, it was too little to help. Goldman notified Long-Term that they couldn't raise the money. Meriwether kept trying. He contacted Warren Buffet again. Buffet might buy the portfolio but he wasn't interested in the management or the staff.

Bear Sterns notified Long-Term that they would stop clearing trades as soon as they fell below \$500.



## At the Fed

#### At the Fed Summary and Analysis

In 1913 the Federal Reserve System was created as a private institution that was managed in the public interest. It was supposed to promote stability in the banking and monetary system. One of its functions is the adjustment of short-term interest rates. A group from the Fed traveled to the Greenwich headquarters of Long-Term. During the meeting, Hilibrand showed them the risk aggregator that summarized the fund's exposure in each market. The Fed representatives were shocked by the numbers that they saw indicating the extent of Long-Term's exposure.

The way the trades were orchestrated, the counterparties were supposed to be protected by their collateral. A failure of the fund meant that the counterparties would have to sell, which would further depress the market. The Fed team concluded that if Long-Term fell, many investment banking companies and banks would go with it. Bankruptcy would not help the situation, as they knew. Long-Term did not have enough money to make it through the next week.

They looked for other options. Buffet was still on vacation but was not willing to commit to a rescue effort. They considered talking to a group of banks but found problems with that option. Long-Term had another bad trading day on Monday, September 21, and they now had less than one billion dollars of equity. Its leverage was an amazing one hundred to one. This meant that a small market move of one percent would wipe it out.

Long-Term knew that Monday was a bad day by noon. They threatened to sue Bear Sterns if it stopped clearing trades and called Chase for its revolving credit. They provided \$475 million which kept Bear Sterns from stopping clearing trades. This bought Long-Term a few more days. In spite of this, Meriwether felt that the firm's trades were good if they just had a little more time.

The people from the Fed had a breakfast meeting with the big three banks and said they weren't worried about Long-Term's losses or the potential losses to other firms and banks. They felt the losses would be at a level that could be tolerated. They were concerned with the effects on the entire financial system, or what was known as systematic risk. The meeting ended with groups going to talk to Long-Term and to Merrill to consider the different approaches discussed at the meeting.

Long-Term now had enough money left to make it through the next day. The group with Merrill Lynch worked out a plan for a consortium that would require the support of most of the Wall Street banks. Sixteen banks would each invest \$250 million. That was all the banks agreed on. All the other terms were still being disputed. They held a meeting at the Fed that night and the Fed said they were trying to see if there could be a private solution without any chaotic liquidation. The meeting ended at 11 pm with plans to meet again the next day. The people at Merrill held meetings throughout the night.



There were meetings the next morning when they learned that Warren Buffet was willing to bid on the portfolio for \$250 million and had funds for stabilization. The Long-Term partners had until 12:30 pm to decide.

The way the offer was worded, Buffet would buy the Cayman Island partnership. Meriwether could not consent to this on his own because it was owned by different entities. He thought that Buffet should invest in the fund. He could still fire Meriwether and the partners this way. The bid had to be rejected.

The bankers met at the Fed again at 1 pm. They discussed the possibility of systematic collapse. Some participants were will to be a part of the consortium; others were not. At 3 pm that afternoon Haghani was told that the group was going to bail out Long-Term. They had raised \$3.65 billion for a bail out effort. Some had to go to the fund's partners since they would have to manage the money. The questions of how long the investment was for had to be worked out since the banks wanted their money back as soon as possible. The plan they established was to lower the fund's risk level, to return capital to the new investors, and to realize a profit. There would be a new spoke and the banks would receive ninety percent equity in the fund.

Even though the agreement was announced to the press, it wasn't solidified. There were still disagreements about the terms among the members. Their lawyers met and as they did, Long-Term's capital fell to four hundred million dollars. The Long-Term partners were not pleased with the contracts the lawyers offered them: \$250,000 per year with all kinds of restrictions. They refused to sign. There was a meeting between the partners and the consortium and Fed group. They eventually worked out enough of the details. "The partners were ready to sign. They stood in a knot at the far end of the room, a cathedral-sized space that seemed to dwarf the small band of diminished arbitrageurs" (Chap. 10, p. 218).



## Epilogue

#### **Epilogue Summary and Analysis**

The brunt of the Long-Term situation was on the partners. They had forced many investors out before the fall to protect their own position. This meant they were the remaining parties who bore the burden of the financial collapse, and it cost the partners about \$1.9 billion.

When the Fed lowered interest rates a week after the bailout, it did little to help Long-Term. The consortium lost \$750 in its first week. There was also a global audit by the IRS of the management company and its affiliates. This meant that the partners could have tax liabilities. During the year after the bailout, the partners gradually left the firm.

The government studied the problem caused with Long-Term. The results recommended more reporting and disclosure requirements for hedge funds, better bank credit and risk management and stricter regulatory requirements. The problems were the lax credit policies of the big banks. It just happened to be a hedge fund that was involved. The situation also proved that diversification can also fail as well as market models. Traders are human and they don't always do what the models predict they will do.

"Whether any mathematical system designed with a previous crisis in mind can ensure against future debacles is doubtful, but for Meriwether, the successful launch of JWM was yet another astonishing comeback, the sort for which Wall Street is justly famous. In December, fifteen months after he lost \$4.5 billion in an epic bust that seemed about to take down all of Wall Street and more with him, Meriwether raised \$250 million, much of it from former investors in the ill-fated Long-Term Capital, and he was off and running again" (Epilogue , p. 236)





#### **John Meriwether**

Meriwether was from the Midwest, born in 1947 in the Roseland section of the South side of Chicago. His father was an accountant and his mother was employed by the Board of Education. He attended St. John de la Salle elementary school and then Mendel Catholic High School. John was good in mathematics and won a National Honor Society scholarship and a Chick Evans scholarship to attend Northwestern. He also liked gambling and began trading stocks at the age of twelve. Meriwether taught math for a year after Northwestern, then earned a business degree from the University of Chicago. He worked at CNA Financial Corporation while in business school.

He moved to New York and began to trade government bonds for Salomon and made millions of dollars for the firm. Meriwether founded the Arbitrage Group in 1977, which became the model for Long-Term Capital. He became a successful Wall Street trader and was a partner at Salomon Brothers during the 1980s. He is the brainchild behind Long-Term Capital Management, which was the result of his forming a group of Ph.D arbitrageurs to form the fund. In 1981, he married Mimi Murray. He is nicknamed J.M. They moved to a \$2.7 million dollar estate in Westchester County.

#### Lawrence Hilibrand

Hilibrand was from Cherry Hill, New Jersey, and the son of an engineer. He had two degrees from MIT and was originally hired by Salomon's Research Department. From there, he moved to the Arbitrage Department and worked for Meriwether. When Meriwether formed Long-Term, he hired Hilibrand away from Salomon. Hilibrand was considered to be the smartest of the group and he was also one of the big losers at the end. He and his family lived in Greenwich on a \$2.1 million fifteen acre plot and were building a \$4 million house.

Hilibrand was a part of the small group with Meriwether, Rosenfeld, and Haghani, who comprised the dominant force at Long-Term. The group received more than half of the total amount of compensation paid by Long-Term. They had the authority and the voting control.

Hilibrand was extremely self-confident as a trader. He supported the models and the concept of arbitrage trading. He was respected by his colleagues and they all consulted him whenever they needed professional advice or a decision made.

#### Victor J. Haghani

Haghani was an Iranian American with a degree from the London School of Economics. He was hired by Meriwether and was a part of the Arbitrage Group. He was the son of a



wealthy importer-exporter and had an American mother. He had lived in Iran for two years with his father and spent time in the London and Tokyo offices of Salmon. He trained them in the style of trading of the Arbitrage Group. He worked in the London office for Long-Term Capital Management. Haghani was interested in European equity markets, which is one of the reasons that Long-Term became involved in equity arbitrage.

Haghani was a member of the small group of partners consisting of Meriwether, Rosenfeld, and Meriwether, who received the most compensation and had the most authority regarding decision making.

### **Eric Rosenfeld**

Rosenfeld was a professor at Harvard and had studied under Robert Merton. He was trained at MIT. He was a computer freak and the son of a Concord, Massachusetts money manager. He specialized in quantitative methods. He was hired by Meriwether to work in the Arbitrage Group. Rosenfeld became interested in the Black and Sholes model and had a friend write a computer program for investing and gambling. They formed a small successful company to market the software. Rosenfeld had an interest in equity arbitrage and led the firm into the European markets, along with Haghani.

Rosenfeld lived in a home on the waterfront in Westchester. He indulged in his passion for wine by having a private ten-thousand bottle French wine collection.

### **Robert C. Merton**

Merton was a Harvard faculty member that was hired by J.M. to help Long-Term raise the \$2.5 billion that it required. He was the son of Robert K. Merton, a well-know social scientist at Columbia University. He grew in the New York City suburb of Hastings-on-Hudson. Merton became interested in investments when he was an undergraduate at Cal Tech before transferring to MIT to study economics. He developed the field of continuous time finance. Merton, along with Scholes, won the Nobel Prize for Economics in 1996.

### **Myron Scholes**

Myron Scholes is a famous economist and son of an Ontario dentist. When he finished college he worked at the University of Chicago as a computer programmer and then stayed on as a student. He developed the Black-Scholes Model with Fischer Black. The model determines the economically correct price of a stock. He was also hired by Meriwether to work at Long-Term. Scholes' strong point was testing models. He, along with Merton, won the Nobel Prize for Economics in 1996. A week after the bailout, he married a San Francisco lawyer.



#### Warren Buffet

Warren Buffet is an Omaha millionaire and a member of the Salomon board of directors. He was the largest stockholder in Salomon and eventually sold for nine billion dollars in stock. When Long-Term was collapsing, they appealed to Buffet through Goldman Sachs. He came through with a paltry offer that they rejected.

#### **David W. Mullins**

Mullins was vice chairman of the Federal Reserve System when Meriwether hired him. He was second in command to Alan Greenspan and commanded a lot of respect among bankers and central bankers. His father had been the president of the University of Arkansas and had taught at Harvard.

#### Jon Corzine

Corzine is the son of a Southern Illinois grain farmer. He married a girl he knew in kindergarten. He was a bond trader at Goldman Sachs who rose through the ranks and became a financier. He was involved in negotiating a rescue package for Long-Term to keep the financial markets from collapsing.

#### John Gutfreund

John Gutfreund is the managing partner at Salomon Brothers. He threatened to fire Meriwether and others if the firm lost money on the Eckstein position. He was forced to resign as a result of a scandal involving Salomon employee Paul Mozer.

### **George Soros**

Soros is a currency speculator and head of the Quantum Fund. This is the group that forced the Bank of England to devalue the pound in 1992 and made more than a billion dollars in profit on the event.

#### Alan Greenspan

Alan Greenspan was the Chairman of the Federal Reserve System.



## **Objects/Places**

### Chicago, Illinois

Chicago is the birthplace of John Meriwether.

#### **Cayman Islands**

The Cayman Islands in the Caribbean is where the Long-Term Capital Portfolio was established as partnership.

#### **New York**

New York City is where Meriwether moved after graduate school and became a broker for Salomon.

#### Wall Street

Wall Street is the financial area of New York, also known as 'The Street".

#### London

London, England is where many of the investment banking firms, including Long-Term, had offices. Long-Term offices were in Mayfair.

### The City

The City is the financial area of London.

#### Westchester County

Westchester County is where Meriwether and his wife moved after opening Long-Term.

### Greenwich

Greenwich in on Long Island Sound and is the location of the offices of Long-Term.



### Waterville

Waterville is an Irish golf course where Long-Term held week-end gold outings.

### Russia

Russia is the country that had a market collapse that caused Long-Term's disaster.



## Themes

### **Risk-Taking**

The theme of risk-taking runs throughout the book. Risk-taking is what participating in financial markets is all about. Investors are willing to risk their own money in the hopes of making a profit. Money making for taking risks is what financial markets are all about.

All of the characters in the book are risk-takers. They risked their own money to become partners at Long-Term in the hopes of making money. And money is what they made until the end, when the spreads kept widening instead of converging. They were all willing to bet on new kinds of swaps in bonds and equities. They used mathematical and computer models to predict prices and based their positions on the models.

The kind of arbitrage trading that hedge funds engage in was considered to be low risk trading, even if the instruments involved were risky instruments. The arbitrage trading made them rich and worked as long as the spreads converged. When the spreads widened, they lost their millions and billions within a five week period. That was the risk they took.

#### **Functioning of Markets**

Another theme of the book is the functioning of markets. A great deal of the book is devoted to explaining the different instruments, like bonds, and how the markets for these instruments function. One must understand how markets function in order to understand what happens when markets don't behave the way they are expected to.

Lowenstein explains the function of markets and the different kinds of positions and deals, like swaps, in the course of telling the story of Long-Term. Some of these deals are rather complicated and the reader must understand them in order to understand what happened to Long-Term and how they lost billions of dollars in a five week period.

In explaining how markets functions, Lowenstein shows how the international capital markets function, how the pieces in each of the different countries fit together so they all function as one big market. What happens in one country affects what happens in another country, which is how the Russian collapse caused the downfall of Long-Term.

#### Value of Disclosure

The whole story of Long-Term indicates the value of disclosure. Throughout the book the secrecy of Long-Term's positions and exposure is expressed and emphasized. Even the investors in the hedge fund did not know what positions it took or what the extent of those positions were. There were few reporting requirements that applied to hedge funds and little regulation. Even Regulation T, which applies to margin requirements, did



not apply to hedge funds because of the way they did their swaps. This means that there was basically no limit on the amount of borrowing the fund could do. The banks were willing to loan them hundreds of millions of dollars because they were making so much money on them.

In the five week period when the spreads kept widening, the extent of Long-Term's exposure wasn't known until the end. Then it was feared that there would be a rippling effect through the financial markets because of the extent of bank exposure. This is why they bailed out the fund at the end.

Disclosure on that part of hedge funds would have prevented this situation. Watchdog agencies like the SEC and CFTC would have stepped in to prevent the huge exposure that Long-Term had. There would have been limits on the credit that was extended to the fund. They wouldn't have brought the financial markets to the brink of disaster.



# Style

#### Perspective

Roger Lowenstein is very well qualified to write a book of this nature. As a reporter for the Wall Street Journal for more than ten years, Lowenstein wrote the column on stock markets called "Heard on the Street" and then "Intrinsic Value". After leaving the Wall Street Journal, he wrote a regular column for Smart Money. He has also written for The New York Times and The New Republic in addition to other publications.

Lowenstein's knowledge of markets is obvious in the book. He is able to explain the different instruments, how markets function, and how the various deals are made and how they function. He has to have a good knowledge of the markets and trader's mentality to do this. The reader benefits from his knowledge of the markets and his ability to explain the details in everyday English to make it understandable for the reader.

### Tone

The book is written from the third person point of view, with the narrator being the author, Roger Lowenstein. The reader benefits from Lowenstein's knowledge of financial markets and how they function. The book does not have the limitations that would exist if the book was written in the first person. The reader can learn information and events that take place away from the main character.

For the most part, the book is written in an objective tone, with Lowenstein explaining the details of markets and deals and telling the story of Long-Term. At times he is critical of some of the decisions that were made, especially by the Federal Reserve. When Lowenstein disagrees, he lets the reader know about it. This also has to be appreciated by the reader because it represents Lowenstein's knowledge of finance, economics,k and markets. He informs the reader of why he disagrees. It also causes the reader to think about the situation and why Lowenstein disagrees.

#### Structure

The structure of the book is divided into two parts, with five chapters in each part. The first part is concerned with the rise of Long-Term; the second part is concerned with the fall of Long-Term. The first five chapters provide the background information on the major characters, explain the basics of arbitrage trading and how the group formed at Salomon, and where Meriwether developed and ran the Arbitrage Department. When he left Salomon he formed Long-Term, and the growth of Long-Term is the subject of the remainder of the first five chapters.



The second part of the book tells the story of the decline. It covers a period of five weeks following the crisis in which spreads kept widening as the fund lost billions of dollars. This is the most logical structure for the book.

There are also some graphs and charts in the book. This helps the reader who does not have a background in areas like statistics to better understand what he is thinking about. There is also an extensive section on Notes for each chapter showing where the author obtained his information from. This makes it easy for readers who want to check sources or obtain further information.



## Quotes

"The source of the trouble seemed so small, so laughably remote, as to be insignificant. But isn't it always that way? A load of tea is dumped into a harbor, an archduke is shot, and suddenly a tinderbox is lit, a crisis erupts, and the world is different. In this case, the shot was Long-Term Capital Management, a private investment partnership some forty miles from Wall Street. LTCM managed money for only one hundred investors; it employed not quite two hundred people, and surely not one American in a hundred had ever heard of it. Indeed, five years earlier, LTCM had not even existed." Introduction, p. xviii

""By buying the bill futures and shorting (that is, betting on a decline in the prices of) the actual bills, Eckstein really had two bets going, each in opposite directions. Thus, he would expect to make money on one trade and lose it on the other. But as long as the cheaper asset - the futures - rose by a little more (or fell by a little less) than did the bills, Eckstein's profit on this winning trade would be greater than his loss on the other side. This is the basic idea of arbitrage." Chap. 1, p. 4

"Of course, there was no way Meriwether would settle for such a qualified homecoming. The Mozer scandal had ended any hope that J.M. would take his place at the top of Salomon, but it had sown the seeds of a greater drama. Now forty-five, with hair that dipped in a wavy, boyish arc toward impenetrable eyes, J.M. broke off talks with Salomon. He laid plans for a new and impendent arbitrage fund, perhaps a hedge fund, and he proceeded to raid the Arbitrage Group that he had, so lovingly, assembled." Chap. 1, p. 22

"The implicit logic is that if a fund is open to only a small group of millionaires and institutions, agencies such as the SEC need not trouble to monitor it. Presumably, millionaires know what they are doing; if not, their losses are nobody's business but their own." Chap. 2, p. 24

"J.M.'s design was staggeringly ambitious. He wanted nothing less than to replicate the Arbitrage Group, with its global reach and ability to take huge positions, but without the backing of Salomon's billion in capital, credit lines, information network, and seven thousand employees. Having done so much for Salomon, he was bitter about having been forced into exile under a cloud and eager to be vindicated, perhaps by creating something better." Chap. 2, p. 27

"Merrill moved the fund-raising forward by devising an ingenious system of 'feeders' that enabled Long-Term to solicit funds from investors in every imaginable tax and legal domain. One feeder was for ordinary U.S. investors; another for tax-free pensions; another for Japanese who wanted their profits hedged in yen; still another for European institutions, which could invest only in shares that were listed on an exchange (this feeder got a dummy listing on the Irish Stock Exchange)." Chap. 2, p. 32



"The Gods smiled on Long-Term. Having raised capital during the best of times, it put its money to work just as clouds began to gather over Wall Street. Investors long for steady waters, but paradoxically, the opportunities are richest when markets turn turbulent. When prices are flat, trading is a dull sport. When prices begin to gyrate, it is as if little eddies and currents begin to bubble in a formerly placid river. This security is dragged with the current, that one is washed upstream. Two bonds that once journeyed happily in tow are now wrenched apart, and once predictable spreads are jolted out of sync. Suddenly, investors feel cast adrift. Those who are weak or insecure may panic or at any rate sell. If enough do so, a dangerous undertow may distort the entire market. For the few who have hung on to their capital and their wits, this is when opportunity beckons." Chap. 3, p. 40

"Long-Term, with trademark precision, calculated that owning one bond and shorting another was one twenty-fifth as risky as owning either bond outright. Thus, it reckoned that it could prudently leverage this long/short arbitrage twenty-five times. This multiplied its potential for profit but - as we have seen - also its potential for loss. In any case, borrow it did. It paid for the cheaper, off-the-run bonds with money that it borrowed from a Wall Street bank, or from several banks. And the other bonds, the ones it sold short, it obtained through a loan, as well." Chap. 3, pp. 44-45

"Long-Term dubbed its safe bets convergence trades, because the instruments matured at a specific date, meaning that convergence appeared to be a sure thing. Others were known as relative value trades, in which convergence was expected but not guaranteed." Chap. 3, p. 52

"For all its attention to risk, Long-Term's management had a serious flaw. Unlike at banks, where independent risk managers watch over traders, Long-Term's partners monitored themselves. Though this enabled them to sidestep the rigidities of a big organization, there was no one to call the partners to account." Chap. 3, p. 58

"The secret of this magical foretelling was breathtakingly simple. Just as the key number in the dice bet was the typical variance from 7, the key number for Long-Term was the usual variance, or volatility, in bond prices. By plugging tens of thousands of bond prices into its SPARC computers, Long-Term's traders knew the historic volatility - that is, how much bonds had fluctuated in the past. And that one number (calculated over thousands of daily, monthly, and yearly intervals and for numerous types of bonds) was the basis of their assessment of risk in the future. Peter Rosenthal, Long-Term's press spokesman, glibly explained, "Risk is a function of volatility. These things are quantifiable,' Meriwether, Merton, Scholes, and company had no more earnest belief." Chap. 4, pp. 63-64

"But markets have memories. Sometimes a trend will continue just because traders expect (or fear) that it will. Investors may slavishly follow the trend for no other reason than that they think enough others will do likewise. Such momentum trading has nothing to do with logically appraising securities; it doesn't fit the ideal of rational investors in efficient markets. But it's human. After three bad 'flips' in the market, the fourth flip in the market may no longer be completely random. Some traders may have taken losses and



be forced to sell; other investors, looking over their shoulders, may panic and decide to beat them to it - as happened with Treasury bonds during Long-Term's inaugural spring. Whenever the human spirit is present, the little runs that Fama noticed, and even big, Black Monday-sized runs, are possible." Chap. 4, pp. 73-74

"What's more, they stressed that Long-Term expected its returns to be negatively correlated from one period to the next, meaning that a down month would likely be followed by a good month would likely be followed by a good month and so on, thus making sustained losing streaks even less likely. 'A low return in any one quarter may be more likely to be followed by a higher return in the subsequent quarter,' Merton and Scholes argued. Over time, that was logical, because over time markets do correct their mistakes. Otherwise, there would be no point in buying mispriced securities. But what if, before prices corrected, they go further - drastically further - out of line, as had happened to Eckstein in the 1970s? " Chap. 4, p. 76

"But the banks were fighting to do more hedge fund business, not less. Five years into a bull market, the banks were awash in liquidity, and the hedge fund trade was a lucrative way for Wall Street to employ its surplus capital. The banks accomplished this by a practice known as 'renting out the balance sheet' - literally, transferring their enormous borrowing power to hedge funds with lesser credit ratings, a service for which they charged mere pennies on every \$100 of credit. Long-Term, which was easily the Street's biggest hedge fund customer, was reputed to be throwing off \$100 million to \$200 million in fees to Wall Street each year, and each of the banks wanted as big a share of the money as possible." Chap. 5, p. 82

"The arbitrageurs were blind to the value of contributions that didn't drop straight to the bottom line; only financial points counted. Perhaps this was one reason they were so intent, well after they had any need, on maximizing their personal net worth. They simply wouldn't give up on Schole's warrant idea, the main point of which was to leverage their personal fortunes. And the warrant became an obsession with them." Chap. 5, p. 91

"This did not augur well. Since spreads on Long-Term's existing trades had already narrowed, such trades offered less potential for profit in the future. Moreover, the fund had not been able to find new trades quickly enough to keep pace with the growth in its capital. Rather humbly, J.M. all but predicted that the rocket would return to earth: 'Our current, but necessarily imprecise, judgment is that the net return for 1997 is likely to be materially below the 1996 return, although actual results may be considerable above or below our expectations including potential for loss." Chap. 5, p. 95

"One attractive point was that equity arbitrage would (he supposed) be uncorrelated with bond arbitrage. Ever Merton's disciple, Rosenfeld wanted random investment dice, and it was hard to imagine that the spreads between stocks would widen at the same moment as the spreads between mortgages or the spreads between European bonds. Equities seemed of a different world. By definition, this would not be a small extension of the business but a radical, risky experiment." Chap. 6, p. 98



"A bit of liquidity greases the wheels of markets; what Greenspan overlooked is that with too much liquidity, the market is apt to skid off the tracks. Too much trading encourages speculation, and no market, no matter how liquid, can accommodate all potential sellers when the day of reckoning comes. But Greenspan was hardly the first to be seduced by the notion that if only we had a little more 'liquidity,' we could prevent collapses forever." Chap. 6, p. 106

"At year-end, when Long-Term returned \$2.7 billion to investors, its leverage ratio skyrocketed from 18 to 1 to 28 to 1 (as always, not including derivatives). Thus, though the firm's prospects looked bleaker than ever, the partners had raised their leverage back to the level prevailing during the business's salad days. With derivatives, it may have been even higher." Chap. 6, p. 120

"There is no stock or security known as 'equity vol,' no direct way of making a wager on it. But there is an indirect way. Remember that, according to the Black-Scholes formula, the key element in pricing an option is the expected volatility of the underlying asset. As the asset gets jumpier, the price of the option rises. Therefore, if you knew the price of an option, you could infer the level of volatility the market was expecting." Chap. 7, p. 124

"Like Salomon, Long-Term had shorted a simple swap spread, a number that is derived from the interest rate on a standard, widely used trade. The swap rate is, at any given moment, the fixed rate that banks, insurers, and other investors demand to be paid in exchange for agreeing to pay the LIBOR rate, a short-term bank rate. The twist is that the LIBOR rate floats; no one knows where it will go in the future. Typically, swap rate in each country trade at a slight spread above the interest rate on the country's government debt. Thus, this swap spread is a basic barometer of credit market anxiety; it is the premium that investors demand for taking the risk of being exposed to rate fluctuations in the future." Chap. 7, pp. 136-37

"Even in seemingly unrelated markets, Long-Term suffered a drubbing. The riskier Russian and Brazilian bonds that Long-Term owned plunged, and by far more than the safer Russian and Brazilian bonds that he had sold short as the hedges that were supposed to have made its bets so safe. In fact, nothing in any market went right that day." Chap. 8, p. 146

"For the first time, Meriwether sounded worried. 'What are you talking about? We still have two billion. We have half - we have Soros.'

"Mattone smiled sadly. 'When you're down by half, people figure you can go down all the way. They're going to push the market against you. They're not going to roll [refinance] your trades. You're finished."' Chap. 8, p. 157

"This was no longer purely coincidence. As it scavenged for capital, Long-Term had been forced to reveal bits and pieces and even the general outline of its portfolio. Ironically, the secrecy obsessed hedge fund had become an open book. Markets, as Vinny Matone might say, conspire against the weak. And thanks to Meriwether's letter, all Wall Street knew about Long-Term's troubles." Chap. 9, p. 164



"And Long-Term had bet on risk all over the world. In every arbitrage, it owned the riskier asset; in every country, the least safe bond. It had made that one same bet hundreds of times, and now that bet was losing." Chap. 9, p. 168

"Corzine had been intrigued with the idea of joining forces with Meriwether before, and now he could deal with his rival from a position of strength. He agreed to provide capital, but at a price; he demanded half of the patterns' management company, full access to Long-Term's strategies, and the right to set a limit on the fund's exposures. The congenial financier was proposing nothing short of a takeover. However, Corzine was offering \$1 billion of Goldman's and its clients' money, as well as a promise to help Long-Term raise a second billion. And merely informing the world that Goldman was in Long-Term's corner might stop the bleeding. Meriwether could not say no." Chap. 9, p. 172

"But in this case, Rickards explained, bankruptcy would not stop anything; it would merely ring the bell for counterparties to start going after their collateral. And the Drexel crisis had involved only bonds, not derivatives. Long-Term's case was far more complex. It would be hopeless to try to unravel all those overlapping swaps, Fisher knew. Furthermore, finding a buyer for the firm was out of the question. Nobody would touch positions such as equity volatility. 'So this is a new paradigm,' Gensler said unhappily." Chap. 10, p. 189

"After talking with the banks, Fisher concluded that Wall Street would be willing to participate in a rescue, but given the bankers' mutual distrust and competitive predispositions, none would take the risk of initiating one. That would leave it to the Fed. Corzine, still hedging his bets, had the same though. Should Goldman's exclusive bid fall through, he wanted to avoid a competitive free-for-all. He would much prefer to join hands under the Fed's protective banner. And Herb Allison was pushing Fisher to bring some banks together on neutral ground. Sensing that time was running out, Fisher invited the big three banks to breakfast at the Fed." Chap. 10, p. 194

"Long-Term's debacle was a tragedy for its partners. Motivated by insatiable greed, they had forcibley cashed out their outside investors only months before, leaving themselves to withstand, virtually alone, the brunt of the collapse. The wizards of Wall Street personally lost \$1.9 billion." Epilogue, p. 218

"In the year following the bailout, unhappy partners gradually (and with the consortium's permission) left the firm. Most would able to tap past connections and resume a normal working life. No stigma was attached; second acts on Wall Street are as common as they are in politics. Perhaps one cycle, be it an election cycle or an economic cycle, is the extent of the public's memory." Epilogue, p. 226



## **Topics for Discussion**

What is a hedge fund?

Why was Meriwether forced out of Salomon?

What is the meaning of the word convergence?

What was the basic strategy of Long-Term's trading?

Explain how an equity swap works. Why was there no violation of Regulation T involved in these swaps?

What caused the market to turn on Long-Term?

What was the outcome of Long-Term?