

Currency Exchange Trading and Rogue Trader John Rusnak

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Introduction

In 1993, a foreign currency trader, John Rusnak, was hired by Allfirst bank in Maryland. Hiring Mr. Rusnak was the start of an idea that was forming in the mind of Allfirst's Treasurer Dan Cronin. The idea was to have a foreign exchange trading center at Allfirst. John Rusnak was hired to bring profits to Allfirst via proprietary foreign exchange trading. Prior to Rusnak's arrival, foreign exchange trading at the bank was limited to assisting bank customers in hedging against currency risk. Allfirst performed this service for companies that were dealing with overseas trades.

This decision would eventually incur a \$691 million loss for Allied Irish Bank, the owner of Allfirst bank. The story of this loss involves foreign exchange trading, bank organization, organizational politics, human dynamics, work ethic, inadequate accounting controls and more. This analysis will include a review of foreign currency trading concepts, the strategies that Rusnak employed to trade and to cover his losses, the findings of the Ludwig report and analysis of how this transpired.

Currency Markets

The currency market includes the Foreign Currency Market and the Eurocurrency Market. The Foreign Currency Market is virtual. That is, there is no one central physical location that is the foreign currency market. It exists in the dealing rooms of various Central banks, large international banks, and some large corporations. The dealing rooms are connected via telephone and computer and FAX. Some countries co-locate their dealing rooms in one center. The Eurocurrency Market is where borrowing and lending of currency takes place. Interest rates for the various currencies are set in this market.¹

Trading on the Foreign Exchange Market (FOREX) establishes rates of exchange for currency. Exchange rates are constantly fluctuating on the FOREX

market. As demand rises and falls for particular currencies, their exchange rates adjust accordingly. Instantaneous rate quotes are available from a service provided by Reuters. A rate of exchange for currencies is the ratio at which one currency is exchanged for another.²

The following are examples of currency rates from the Wall Street Journal on April 16, 2003:³

FX Summary	Prior US Close	6:45 ET
USD/JPY	120.16	120.29
EUR/USD	1.0815	1.0843
USD/CAD	1.4485	1.4474

This table shows the closing exchange rates from the Foreign Exchange market. For example, the USD/JPY value is the exchange rate for dollars to yen, that is, 120.16 yen per one dollar. The dollar is the base currency in this case, as it is one unit of a dollar per an amount of yen.

The foreign exchange market has no regulation, no restrictions or overseeing board. Should there be a world monetary crisis in this market; there is no mechanism to stop trading.⁴ The Federal Reserve Bank of New York publishes guidelines for Foreign Exchange trading. In their “Guidelines for Foreign Exchange Trading”, they outline 50 best practices for trading on the FOREX market.⁵ This document is not legally binding or regulatory in nature.

Exchange Contracts

The actual exchange of currencies is governed by contracts between the buyer and seller of the currencies. There are a variety of contract options available to investors. Mr. Rusnak focused on Spot and Forward contracts in his trading.

Spot Exchange

The spot exchange is the simplest contract. A spot exchange contract identifies two parties, the currency they are buying or selling and the currency they expect to receive in exchange. The currencies are exchanged at the prevailing spot rate at the time of the contract. The spot rate is constantly fluctuating. When a spot exchange is agreed upon, the contract is defined to be executed immediately. In reality, a series of confirmations occurs between the two parties. Documentation is sent and received from both parties detailing the exchange rate agreed upon and the amounts of currency involved. The funds actually move between banks two days after the spot transaction is agreed upon.⁶

Forward Exchange

The forward exchange contract is similar to the spot exchange; however, the time period of the contract is significantly longer. These contracts use a forward exchange rate that differs from the spot rate. The difference between the forward rate and the spot rate reflects the difference in interest rates between the two currencies. This prevents an opportunity for arbitrage. If the rates did not differ, there would be a profit difference in the currencies. That is, investing in one currency for a year and then selling it should be the same profit or loss as setting up a forward contract at the forward rate one year in the future. Investing in one currency would be more profitable than investing in the other. Thus there would exist an opportunity for arbitrage.⁷ Forward exchange contracts are settled at a specified date in the future. The parties exchange funds at this date. Forward contracts are typically custom written between the party needing currency and the bank, or between banks.

Currency Futures and Swap Transactions

Currency futures are standardized forward contracts. The amounts of currency, time to expiry, and exchange rates are standardized. The standardized expiry times are specific dates in March, June, September, and December. These futures are traded on the Chicago Mercantile Exchange (CME). Futures give the buyer an option of setting up a contract to exchange currency in the future. This contract can be purchased on an exchange, rather than custom negotiated with a bank like a forward contract.⁸

A currency swap is an agreement to two exchanges in currency, one a spot and one a forward. An immediate spot exchange is executed, followed later by a reverse exchange. The two exchanges occur at different exchange rates. It is the difference in the two exchange rates that determines the swap price.⁹ There is also something called a currency swap. This is a method to exchange an income stream of one currency for another.¹⁰

Options

A currency option gives the holder the right, but not the obligation, either to buy (call) from the option writer, or to sell (put) to the option writer, a stated quantity of one currency in exchange for another at a fixed rate of exchange, called the strike price. The options can be American, which allows an option to be exercised until a fixed day, called the day of expiry, or European, which allows exercise only on the day of expiry, not before. The option holder pays a premium to the option writer for the option. The option differs from other currency contracts in that the holder has a choice, or option, of whether they will exercise it

or not. If exchange rates are more favorable than the rate guaranteed by the option when the holder needs to exchange currency, they can choose to exchange the currency on the spot exchange rather than use the option. They lose only the option premium. Options allow holders to limit their risk of exposure to adverse changes in the exchange rates.

Currency Hedging

It is common for currency options to be used to hedge cash positions. For example, if Company A is buying stereos from Japan, they will make an agreement to pay Company B for the stereo equipment in yen. The spot rate at the time of the deal is 119Y to the dollar. Suppose that the stereos are selling for \$100.00 each or ¥11,900 a piece. The company is purchasing 100 stereos. They need to provide ¥1,190,000 to the seller. If the stereos were purchased today, they would cost the company \$10000. The company would exchange \$10,000 for ¥1,190,000.

This deal will be transacted in three months. In three months, currency rates will change. If the dollar falls against the yen, for example, the spot rate for yen in exchange for dollars may be ¥100 to the dollar. In that case, in order to provide ¥1,190,000 to the seller of the stereos, the company must exchange \$11,900. The deal costs an extra \$1,900. However, if the yen falls against the dollar, the spot rate might become ¥130 per dollar. In that case, the ¥1,190,000 needed to close the deal will cost \$9154.00. The company has saved \$846.00.

Companies are not typically in the business of gambling with their profits on deals. It is in the company's best interest to lock in an exchange rate they can count on. They are motivated to insure that their profits are as expected. Two ways they might do this are to enter forward contracts or to buy options. Company A could choose to enter into a forward contract with a bank. They would settle on a forward rate that was acceptable to both parties. The contract would settle in three months when the delivery was due. The forward contract is a binding contract and they must make the exchange.

The company could assess the interest rates available in the U.S and in the Eurocurrency market. They could either invest \$10,000 in the US for 3 months, or exchange \$10,000 into yen and invest the ¥1,190,000 for 3 months.

Company A could also use options to reduce their exposure to currency fluctuation. The company will need yen to pay for the stereos. They could purchase a call option to exchange ¥1,190,000 with an expiry date of 3 months or more if it is an American option. They would select an exchange rate that would be acceptable but not too expensive. They might choose to buy a slightly out-of-the-money call option to cover them if the currency exchange rate falls. If it stays

the same or rises, they will exchange at the spot exchange rate at the time the payment is due.

Trading Strategy of John Rusnak

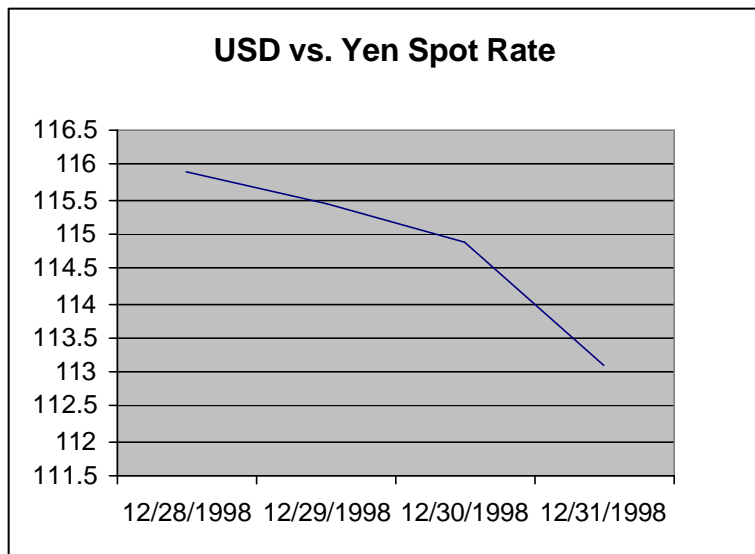
The foreign currency market is the market that John Rusnak gambled and lost in. He used spot transactions, forward transactions and options to amass losses of \$691 million. Mr. Rusnak had been employed in foreign currency trading beginning in 1986 at Fidelity Bank in Philadelphia. He worked at Chemical Bank in New York from 1988 to 1993. In 1993, he was looking for a less stressful position than what he had at Chemical Bank. Coincidentally, David Cronin, the Treasurer of AllFirst Bank in Maryland was looking for a new foreign currency trader. Mr. Cronin was originally from Ireland. He had come to the U.S. to represent the interests of Allied Irish Bank when they had purchased Allfirst. Allfirst was formerly known as First National Bank of Maryland.

Mr. Cronin was impressed with John Rusnak when he met him in 1993. Mr. Rusnak proposed a trading strategy that sounded new and inventive. He told David Cronin, "...he could consistently make more money by running a large option book hedged in the cash markets, buying options when they were cheap and selling them when they were expensive."¹¹ The Ludwig report, a report commissioned by AIB to determine the extent of John Rusnak's fraud, states that "Mr. Rusnak promoted himself as a trader who used options to engage in a form of arbitrage, attempting to take advantage of price discrepancies between currency options and currency forwards." In order to execute this strategy, John Rusnak would have had to buy options "...when they were cheap relative to cash (when the implied volatility of the option was lower than its normal range) and sell them when they were expensive (when the implied volatility is higher than normal.)"

In his trading, John Rusnak did not achieve these lofty goals. Mr. Rusnak executed simple directional trades on the spot and forward markets. He mostly traded in yen and euro. Occasionally, he would use complex options.¹² Mr. Rusnak placed large sum one-way bets that the yen would increase in value against the dollar. Specifically, he bought yen for future delivery, probably with forward contracts. As the yen declined, he could not go back on the forward contracts as they are binding, and was forced to take his losses. He did not hedge these bets with options contracts.

Mr. Rusnak's core trading belief was that the yen was going to rise against the dollar. His strategy throughout all his trading was to place bets in this direction. It is interesting to note what was happening with the yen during the time period Mr. Rusnak was trading. From 1990 – 1995, the yen appreciated. From mid-1995 to 1997, the yen was depreciating against the dollar. In April of 1997,

exchange rates were around 125 yen to the dollar. The Asian market crisis followed soon after causing further problems for the yen.¹³ From 1993 to 1997 at Allfirst, John Rusnak appeared to be doing well. Information on his trading practices prior to 1997 is not available. One may speculate that from 1990 – 1995, he was able to do well with his market view. However, as the yen depreciated, John Rusnak eventually began to have great problems with his one-sided trading.



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Concealment of Losses

At the end of 1997, John Rusnak had lost \$29.1 million by his wrong bets in trading. The jargon of gambling suits his activities well. After his losing bets and heavy losses, John Rusnak embarked on a path to cover up those losses. Instead of taking responsibility and reporting his losses immediately, he decided to hide them, buy himself some time and see if he could win back the money he had lost. Like those with a gambling addiction, John Rusnak thought if he could just place one more bet, place the right bet, he could win it all back. He used many complicated schemes to hide his losses. They included falsification of documents, misuse of office technology, fraudulent entries in accounting systems and intimidation of office personnel.

Bogus Options

The first technique John Rusnak used to hide his losses was to enter bogus options in the banking system. The purpose of these fake options was two-fold. The options appeared to hedge his directional trades. They also gave him a way to hide the losses with a bogus asset. At the end of his trading day, when Mr. Rusnak was entering his daily trades in the bank system, he would enter two false trades. He would enter two options that would offset each other. The options had the

same premium in identical currencies. They were for the same amounts of currencies and used the same strike price. The expiry dates on the options were different.

For example, Mr. Rusnak would enter a put option “sold” by Allfirst to a party in Tokyo. The option would allow the Japanese bank to sell yen at a certain strike price. This option would expire on the day it was written. He would also enter a call option written by the Japanese bank to buy yen at the same strike price as the other option. This option would expire months in the future. The put option would disappear off the books the next day, removing that liability from the banks records. The call option would stay on the books as a valuable asset that covered his losses.¹⁵

It was important to have the premiums of the two options exactly cancel each other out. If the options had not canceled out to zero, there would have been a payment due to either Allfirst or to the counterparty in Tokyo. All payments were required to go through the Allfirst’s Treasury Departments back office. Since these options were false, Mr. Rusnak did not want the back office involved. Keeping the premiums the same meant there was no net payment and thus no requirement for the back office to be involved in payment. Anyone who really looked at the options would have questioned the fact that the two options had different expiry dates but the same premium. That did not make sense. Also, the put option was a deep-in-the-money option. The holder of the option would make a profit by exercising it. The option went off the books in one day unexercised. That was unusual and did not make sense.¹⁶ It is probable that the call option was also deep-in-the-money.¹⁷ There were several of these options that the bank had “paid” high premiums for. The high premium indicates they were probably deep-in-the-money options. Their high value was necessary to cover the high losses that Mr. Rusnak was incurring. The fake option trades were written in the opposite direction of the losing bets he placed. This made it appear to Allfirst that he had offset his losses.¹⁸

With forward positions in yen, the deep-in-the-money calls would have created a payoff diagram that looked similar to:

Payoff Diagram



The diagram is based on an example with a forward contract at strike price ¥100 and a call option with strike price ¥100. The bogus put option that expires on the same day is excluded. John Rusnak was expecting Yen to fall against the dollar. He would have profited from an exchange rate of ¥77 for example. This portfolio appears hedged.

Falsified documents

The bogus options solved one problem, covering the losses; however, they created another problem. The Treasury back office was responsible for confirming all trades. The foreign exchange operation at Allfirst was operating on a shoe-string compared to what a large bank would have in place. Typically a true foreign exchange operation had research departments, dealing rooms, computer programs that automatically confirmed trades and a more sophisticated set-up. Allfirst was using telephone and fax to execute and confirm trades.

John Rusnak knew that the Treasury back office was going to need to confirm his trades. He used his PC to create false trade confirmation documentation. His PC was discovered to have a directory called “fake docs”. This directory contained logos and stationary from various banks in Tokyo and Singapore. Mr. Rusnak used these files to construct fake confirmation documents on his computer. He was able to convince the treasury back office to accept these documents from him, rather than confirming the trades themselves as required.¹⁹ Eventually, Rusnak was able to convince the back office to not confirm the trades at all. He was able to argue that since the trades netted to zero, they did not need to be confirmed. This argument was probably acceptable given confirming Asian trades with their system would have required night-time phone calls. There is also evidence of John Rusnak having a forceful personality that intimidated others. Some in the company say that it was a senior management decision to not confirm Asian counter party trades that netted to zero. The Ludwig report indicates that no evidence of this management decision could be found.²⁰

Prime Brokerage accounts

In 1999, with \$41.5 million lost, John Rusnak turned to prime brokerage accounts. He needed to increase the size of his trades so he could catch up on his losses. Prime brokerage accounts are typically used by high profile traders. They are very often used by hedge funds.²¹ The prime brokerage accounts provided John Rusnak with net settlements. Daily spot transactions were rolled into one forward transaction to be settled at a future date with the prime broker. This accomplished several things for Mr. Rusnak. Having all the daily spot transactions rolled into one net settlement meant that the Treasury back office could not track his daily trades as effectively. It was a means of obscuring what he was really doing.

Mr. Rusnak was able to expand the scale and scope of his trading to large volume high value currency trades.²² He needed to be able to do this to win back the large amounts of money that he was losing. Mr. Rusnak was able to convince David Cronin, the Allfirst Treasurer, that the prime brokerage accounts were a sound idea. He sold them as a way of growing Allfirst's foreign exchange operation. He also said that using the prime brokerage accounts would relieve the back office of the extra work they needed to do on his behalf. His false concern for the back office is quite interesting in light of how often he was at odds with that department over his trading practices. He told the banks setting up the prime brokerage accounts that he could increase his bonus by reducing his demand for the back office staff. John Rusnak used the prime brokerage accounts as another opportunity to enter fictitious trades. He could enter fictitious trades with the brokerage banks to further manipulate the bank's records. He would reverse these transactions by month end before the monthly settlement was done.²³

The prime brokerage accounts allowed John Rusnak to use a type of foreign exchange contract called a historical rate rollover. This type of contract was invented to assist companies in handling delayed shipments from foreign companies. It is a method to extend a currency contract in the event that a settlement of the contract would create a loss for the contract holder. For a purchaser of goods, when the goods are delayed, it can be convenient to extend a contract and wait to exchange funds until payment is required.

However, for a trader, these types of contracts allow losses to be rolled forward. If the trader's contract is due to be settled, and settlement would not be in his favor, he can delay settlement and keep the original rate of the contract. The New York Times reports "The rollover buys time for a trader who hopes that the currency rates will change in his favor in the future. The risk, of course, is that the losses will deepen..."²⁴ For John Rusnak, this was certainly the case. The

historical rate rollover is warned against in the Federal Reserve Bank of NY standard of conduct:

“Accommodation of customer requests for off-market transactions (OMTs) or historical rate rollovers (HRROs) should be selective, restricted, and well documented, and should not be allowed if the sole intent is to hide a loss or extend a profit or loss position. Counterparties should also show that a requested HRRO is matched by a real commercial flow.”²⁵

The Federal Reserve had been warning against the HRROs since 1991. The use of historical rate rollovers by Mr. Rusnak should have alerted his trading partners that something was suspicious.²⁶ No one reported him and no one questioned him.

Value at Risk calculations

John Rusnak avoided detection by manipulating the bank’s Value at Risk (VaR) calculations. Value at Risk is calculated using the Monte Carlo simulation technique. One thousand hypothetical exchange rate fluctuations are generated. Those rate fluctuations are applied to the trader’s portfolio. The tenth worst outcome produced is the bank’s Value at Risk.

The VaR is the main check used on traders to make sure they are not losing more than the bank can afford to lose. The VaR is the largest amount of money the bank can afford to lose if there are adverse trading conditions. For John Rusnak, the VaR was \$1.5 million. As of the end of 1999, Rusnak had lost \$90 million. He had clearly found a way around this check.

A trader is responsible for calculating and monitoring their own VaR. The VaR is also independently calculated by Treasury risk control as a check on the trader. The bogus options discussed earlier made John Rusnak’s open forward positions look as if they were hedged. This improved his VaR as it made his portfolio seem less risky. The fictitious prime brokerage account transactions he was entering also obscured his true VaR. He was able to convince the risk control group to accept a spreadsheet of his open currency positions from him with no confirmation. He altered the values in this spreadsheet to make his open positions seem less than they were. And since the risk control group did not confirm these values, he got away with this technique.

John Rusnak was able to take advantage of technology and cost cutting measures to obscure his stop-loss limit. The stop-loss limit was an amount of loss, after which, Rusnak’s trading would have been shut down for the month. Mr. Rusnak could not afford to lose any time in trying to win his losses back. He had to find a way around the stop-loss limit because he was regularly exceeding it. Mr. Rusnak found that he could manipulate the currency exchange rates used by the bank to force calculations that made it look like he had not exceeded his stop-loss

limits. Again, he was able to provide his own spreadsheet with the exchange rate values. These exchange rates were supposed to be independently confirmed by the risk management office of the Allfirst Treasury.²⁷

Mr. Rusnak had convinced the computer operations department to download exchange rate data from Reuters onto his PC. He claimed he needed to have these rates downloaded to his system so he could monitor his VaR. From his PC, a spreadsheet was then forwarded to the systems in the treasury front and back offices. All of the bank's foreign exchange rates were passing through John Rusnak's hand before being fed into the computer system. This was a serious breach of the integrity of the bank's systems. One of the reasons this happened was that the bank did not want to pay \$10,000 for an additional feed from Reuters for the treasury back office.²⁸ This additional feed would have enabled the back office to independently confirm exchange rates and check John Rusnak's calculations.

Sale of options

By the end of 2000, Mr. Rusnak had lost \$300 million. He was getting pressure from his superiors to reduce his use of the company's balance sheet. The balance sheet of a company lists their assets, liabilities and stock holder's equity at a given time. It shows the resources the company has available to it for operating activities and investment.²⁹ David Cronin, head of treasury, was taking notice of the large amount of the balance sheet John Rusnak was using. Foreign exchange trading revenue was \$13.6 million. The net trading income, however, was only \$1.1 million. Mr. Rusnak was using more of the balance sheet but getting less in return. Cronin asked John Rusnak to reduce his use of the balance sheet.

John Rusnak needed large amounts of cash to continue his gamble to win back the money he had lost. Having his balance sheet usage restricted was somewhat of a blow. To get around this restriction and continue his quest to win back his losses, he came up with a plan. He would sell deep-in-the-money options at high premiums to finance his trading. The options he sold had deep-in-the-money strike prices. The strike prices were so deep, it was extremely likely that the options would be exercised. They were European options that expired in a year and a day. They were essentially loans from the counterparties to Allfirst, to John Rusnak. He received millions of dollars in premiums for the options. He would "pay back" the money when the option was exercised in a year.

As an example, in February 2001, Rusnak made an agreement with Citibank. For a premium of \$125 million, Rusnak wrote a put that gave Citibank the right to sell yen at a strike rate of 77.37 yen to the dollar. The exchange rate at the time was 116 yen to the dollar. The dollar would have to fall 35% for the option to go unexercised. The option was effectively a high interest loan. The loan payment

would come due as a lump sum with interest when Rusnak had to buy yen that Citibank wanted to sell in one year's time. Rusnak had found another way to buy time. However, it created a liability that was sitting on Allfirst's books. Rusnak entered a bogus deal with Citibank that made it appear that Allfirst had repurchased the option.³⁰ Rusnak repeated this process with Bank of America, Deutsche Bank, Bank of New York and Merrill Lynch.³¹ The options he sold totaled over \$300 million raising his total losses to \$691 million, when the yen depreciated further.

Losses Revealed

John Rusnak avoided an amazing number of situations where he could have been caught. He avoided detection over a period of five years. In my research I found 12 separate occasions where his activities were questioned by the Allfirst treasury back office, risk management department at Allfirst, the SEC, and the CEO of Allied Irish Bank. John Rusnak was able to avoid detection on all occasions.

A particularly involved scheme occurred during the one audit conducted at Allfirst during the five year time period of the fraud. Mr. Rusnak was asked to confirm an Asian trade that was bogus. He set up a FAX account at Mailboxes etc. in Manhattan under the name David Russell. He gave the FAX id code of that account to the auditors. The auditors faxed a confirmation request to that FAX id. John Rusnak then called the Mailbox etc. store, posed as David Russell and had them FAX a return confirmation. This worked.

At one point, the bank gave Mr. Rusnak Travel Bloomberg software so that he could trade from home and while on vacation. This was a direct violation of U.S. law. U. S. law requires that traders take 10 consecutive days off from trading every year.³² This is specifically so someone else takes over their duties and fraud can be discovered.

Finally in December of 2001, John Rusnak's luck began to run out. A treasury back office supervisor happened to look over the shoulder of one of their employees and saw that there were two trade documents from Asian trades that Mr. Rusnak executed that did not have attached confirmations as required.³³ The supervisor discussed with the employee that all trades had to have confirmations. The employee believed that any Asian trades that netted to zero did not need to be confirmed. The supervisor requested that the employee get the trades confirmed. In late January, the supervisor again found that Asian trades that netted to zero were still not being confirmed. The back office had become lax and given up after years of losing battles over concerns with Mr. Rusnak's trading. Unfortunately, they were not getting the backing they needed to do their job. The back office employee did not bother to seek confirmations.

Around this time, David Cronin, the Allfirst treasurer, noticed that Mr. Rusnak's use of the balance sheet had spiked up to \$200 million in January. Mr. Cronin had directed that it stay under \$150 million. Also, David Cronin discovered that the foreign exchange trading volume for the bank had been at \$25 billion for the month of December. He decided to shut down John Rusnak's trading positions for a month. Meanwhile, the back office requested Mr. Rusnak's help in obtaining confirmations for the Asian trades. John Rusnak was able to stall for time and offer to get the confirmations himself. He resurrected his fake documents file and created false trade confirmations on his computer. When the trade confirmations were shown to his supervisor, the supervisor noticed that they looked suspicious.³⁴

For the next week, John Rusnak stalled. There was a day or two where the bank thought that he had disappeared. It later turned out that he had been conferring with his family, a lawyer and finally the FBI. He essentially turned himself in and cooperated. His most important task at that time was convincing the FBI that he had not embezzled the money, that he did not have it hidden anywhere. It had all been lost on the foreign exchange market. Executives at AIB and Allfirst were staunch in believing that Mr. Rusnak had not acted alone. Whether or not he acted alone reflected on the bank. If he had not acted alone, the bank could position itself as a victim. If he had acted alone, the bank would have shoulder the blame of not catching the fraud. Mr. Rusnak had acted alone. He was charged with seven counts of bank fraud and entering false entries in bank records.³⁵ He plead guilty and was sentenced to 7 ½ years in prison and a \$1 million fine.³⁶ He will not profit from any book or movie deals. He maintains that he will not write a book or sell rights to a movie for the sake of his family.

The Ludwig Report

Shortly after Mr. Rusnak's fraud was discovered, the Allied Irish Bank (AIB) Board of Director's authorized an investigation by Eugene Ludwig of Promontory Financial Group LLC of Washington DC. Mr. Ludwig had been Comptroller of the Currency from 1993 to 1998 under President Bill Clinton.³⁷ He had a strong background in bank regulation. The Board of Director's needed to bring in an impartial party to investigate. They needed to restore the confidence of their shareholders.

When the news of John Rusnak's fraud was reported, shares of AIB fell from €13.62 to €1.36 on the first day. AIB had been the largest capitalized company on the Dublin Stock Exchange at a capitalization of €12 billion.³⁸ In one day they fell to €10 billion, losing €2 billion in capitalization. AIB employed 30,000 people in Ireland. There was a fear in the market that AIB would collapse like Barings Bank. That was not the case. AIB had been about to announce a

profit of €1.4 billion (\$1 billion) for 2001. The discovery of John Rusnak's fraud reduced this to €12 million (\$426 million).³⁹ There were rumblings at the time, "Was this another Barings Bank?" There were interviews with Nick Leeson, the trader whose losses had caused the fall of Barings Bank. Although there were many similarities to the two stories, AIB was able to absorb the loss.

Early in the discovery of the fraud, executives at Allfirst and AIB believed that Rusnak had coconspirators. Finding that there was collusion to achieve the fraud would absolve the bank of blame. If he had not had people helping him that meant the bank's self-regulating and monitoring procedures had failed miserably.

Eugene Ludwig's team investigated Allfirst and John Rusnak's fraud beginning on February 8, 2002. They published their report on March 12, 2002. The Ludwig team discovered what John Rusnak had done to conceal his losses. They determined that he had worked alone. They identified the following failings in control at Allfirst and AIB that taken altogether, allowed Rusnak to commit fraud⁴⁰:

- "The failure of the back office to attempt to confirm bogus options with Asian counterparties"
- "The failure of the middle and back offices to obtain foreign exchange rates from an independent source."
- "In 1999, an internal audit of treasury operations took no samples of Rusnak's transactions to see if they had been properly confirmed."
- "In 2000, the internal audit sampled only one trade of Mr. Rusnak's to check if it was properly confirmed."

In addition to these failures of control, the bank missed opportunities by ignoring problems raised by the treasury back office. Employees in the back office raised issues ranging from problems confirming trades, problems with Mr. Rusnak's personality to warnings that there was a possibility that Mr. Rusnak could be manipulating foreign exchange rates. John Rusnak was showing a yearly profit for 5 years straight. He became untouchable in organizational politics because he appeared to be so good. The back office staff eventually gave up raising flags on his trading practices as they were continually shot down by management.⁴¹ With executive backing, the treasury back office could have performed a very valuable function and assisted with detecting John Rusnak's fraud.

John Rusnak's supervisors were not experienced in foreign exchange trading. They did not adequately supervise his activities. A knowledgeable supervisor would have seen that the deep-in-the-money bogus options expiring on

the same day they were purchased was odd. The sheer size of Rusnak's positions warranted closer scrutiny. No one was monitoring John Rusnak's daily profit and loss (P&L) figures. They were not reconciled against the general ledger.⁴² If this step had been taken, questions would have arisen as to why his daily P&L swung so widely from profit to loss and back.

There were many who had an opportunity to be aware of the size of Rusnak's positions. In 1999, a risk assessment auditor questioned the size of Rusnak's over limits. Citibank contacted AIB's Group Treasurer to confirm that AIB could cover a net settlement of \$1 billion on John Rusnak's Prime brokerage account. The SEC 10k filings of Allfirst showed the size of Mr. Rusnak's positions. Credit limits were exceeded by Rusnak. In May 2001, AIB's CEO was contacted by a market source and questioned about the size of John Rusnak's positions. There was a trader that worked with Rusnak who could have noticed the size of his positions and questioned it but didn't.⁴³ The traders at the prime brokerage accounts also knew his positions. All traders should be aware of the Foreign Exchange trading guidelines. These guidelines outline suspicious trading activity. For example, the use of historical rate rollovers (HRRO) expressly states that HRROs should not be used to cover losses.⁴⁴ The two banks providing prime brokerage accounts for John Rusnak should not have provided this service and could have taken the step to pursue his conduct with his superiors. Those who were watching the forex market came to recognize Rusnak's trades.⁴⁵ There were many who knew or could have guessed the size of his positions and raised an alarm.

Following are some highlights of the Ludwig report findings on what contributed to the fraud:

- “The architecture of Allfirst's trading activity was flawed.” They had one lone trader trying to essentially implement a hedge fund. He had none of the “specialized knowledge, scale, diversification and specialized expertise” that his competitor's had.
- Senior management in Baltimore and Dublin did not focus sufficient attention on the Allfirst trading operation.
- Mr. Rusnak was unusually clever and devious. He knew the banking systems well from his experience at Chemical Bank so he was able to circumvent their controls. However, given that the controls were weak; this did not take so much cleverness as it did desperation.

- Mr. Rusnak's activities may have been facilitated by individuals at other firms. Investigation after the report has not found this to be true.
- Treasury management weaknesses at Allfirst also contributed to the environment that allowed Mr. Rusnak's fraud to occur. The Allfirst treasurer had a dual reporting structure. David Cronin reported into Allfirst through a variety of different managers. He also reported into AIB. The CEO of Allfirst thought AIB was managing Cronin and vice versa. Therefore, the treasury operation was not managed as thoroughly as it should have been.
- Senior management at both Allfirst and AIB thought their control structures, auditing, etc. were more robust than they actually were. The risk reporting processes needed to be more robust. The risk management team needed to be more proactive in finding problems rather than dealing with what was presented to them.⁴⁶

Analysis

The Ludwig Report provides great detail into what happened at Allfirst and the various areas of laxity, weakness and fault that contributed to John Rusnak's ability to pull off this fraud. This story shows the darker side of corporate operations, what can go wrong. The most significant were the failures in technology, the disorganization and politics, the auditing and monitoring failures and John Rusnak's addictive style of trading.

Technology

As the Ludwig report highlights, Allfirst was running a foreign exchange trading operation without the full backup needed to sustain the levels of trading John Rusnak was involved in. Banks that trade in the volume Mr. Rusnak was trading in typically have a large support staff. There are individuals backing up the trader by doing market research. Traders are working in groups where it is more difficult to commit fraud. In particular, larger trading organizations use the Crossmar Matching System to confirm trades. This system can confirm trades in effect instantaneously. Traders enter their trades in to Crossmar Matching System. The system automatically confirms the trades for both parties. Instead of using this state of the art computing system, Allfirst was using a system of telephone and fax communication. At the time John Rusnak was trading, FAX and telephone confirmations were behind the times for large trading organizations. John Rusnak used the loopholes present in the out of date system.

The system suited a small state bank that traded occasionally to assist its clients when they needed a currency hedge. It was inadequate for the volume and size of the positions Mr. Rusnak was taking. The inadequate system left openings for John Rusnak to fake FAX communications and create fake confirmation letters. It is of interest to note that Allfirst felt the Crossmar matching system was too expensive to implement for only two foreign exchange traders.⁴⁷ This was seen as a sound business decision given the faith that was placed in the VaR monitoring system and the faith placed in the head of Treasury.⁴⁸ However, it had a long term cost in the losses that John Rusnak incurred that would have been much harder to conceal with such a system.

A glaring technology and design lapse was the use of John Rusnak's spreadsheet to feed exchange rates from Reuters to the bank's system. The Treasury Operations department allowed Mr. Rusnak to have the only feed from Reuters for exchange rates. The operations department designed an information system that included an employee's personal computer. This is a serious breach of good system design practices. It was a security hole. John Rusnak was able to insert himself into the bank's information system and change data. Once this problem was identified, it took one year before the problem was rectified. Allfirst had been unwilling to spend an additional \$10,000 to install a second feed from Reuters to confirm exchange rates. That \$10,000 feed would have secured their system.

John Rusnak was given Travel Bloomberg Software for his laptop. This software enabled him to trade at home and while on vacation. U.S. Law requires that traders take 10 consecutive trading days off per calendar year.⁴⁹ The technology providers in a bank system should be cognizant of the regulations on the use of its systems. Although this is not a traditional role for such a department, there is an opportunity for advanced operations in partnering with risk management and auditing departments in banks to strengthen control. There would have been value in this case in particular in someone in computer operations saying, "No. We can't give you that software. It's illegal." Integration of regulations and good business practices is essential in all departments of any corporation.

Organizational Politics

The Ludwig report has several examples of organizational politics contributing to the environment that permitted the fraud. In particular, David Cronin, the Treasurer, had a dual reporting structure with Allfirst and AIB. It was unclear who was really monitoring his activities. Unfortunately, the CEO of Allfirst and executives at AIB did not communicate well. Susan Keating the CEO of Allfirst, was not in the loop on the Treasurer's activities. She should have been as the CEO. However, her knowledge of Treasury was weak. She wanted to make

organizational changes to place David Cronin, the head of treasury under the CFO, however, her perception was that AIB would not approve.⁵⁰ When the AIB CEO was alerted to some problems with Rusnak's trading, he went to his old colleague David Cronin for explanation. He did not involve Susan Keating. There was a pattern of miscommunication, this being one example. There was a sense of Allfirst wanting to run itself, be independent. This led to unclear demarcation of responsibilities. When it is unclear who are responsible, chances are no one will be.

The politics between the front, middle and back offices of the treasury caused problems. The back office personnel were often discounted in favor of John Rusnak. They came to find that in a disagreement, upper management would support Mr. Rusnak. John Rusnak was permitted to bully the back office. He had a reputation for being difficult to work with. The discounting of the back office personnel in favor of the trader, Rusnak's bullying and his management's condoning his behavior took the power of control from the back and middle office and moved it to the front office. The back and middle offices should have been the check on John Rusnak's trading. They were hampered in their work by favoritism shown to Mr. Rusnak. Also, the three branches of the treasury reported into David Cronin. It is customary in banks to separate the reporting of these branches as the back and middle offices are to be a check on the front office. Having the three branches report into David Cronin created a conflict in that he had goals to achieve with trading in the front office and he was supposed to monitor the activities of that office as well.

Accounting Practices

The lack of audits and inadequacy of audits, the failure to review profits and loss, the practices of not confirming trades, not independently confirming exchange rates, not checking VaR independently with independent data allowed Rusnak to get away with fraud. Many of the techniques that Rusnak used were in direct violation of the Guidelines for Foreign Exchange trading. In particular, trades are expressly recommended to be confirmed as soon as possible.⁵¹ The practices that John Rusnak used would not have been effective if regular audits were conducted, if data used for calculations was independently verified, if trade confirmations were made. Also, if the risk management departments had strong executive backing, they could have been much more effective.

Addictive Behavior

John Rusnak's story has many parallels to gambling addiction. He loses money and continues to repeatedly lose money. He thinks that if he just has more time, he can win it back. He exhibits wishful thinking and arrogance. He deludes himself as the losses rise in to the hundreds of millions. His choice to cover up his actions rather than come forward and face the consequences leads him into a downward spiral. All his actions are focused on not being found out. He began having drinking problems and was obsessively trading after hours to try to win back the money.⁵² He was bullying other employees, using anger to drive people away and hide his activities. The Guidelines for Foreign Exchange trading activities warns against substance abuse and gambling in traders.⁵³ Human resources and managers that were better educated in the warning signs of addictions may have been able to recognize that Mr. Rusnak was having a problem. Greater awareness of addictive behavior would behoove trading institutions.

Conclusion

John Rusnak did perpetrate this fraud alone. He had no direct accomplices. However, there were many indirect accomplices. All those mentioned who did not report what they saw, allowed him to talk them out of doing their jobs, and trusted the status quo rather than ask questions to get to the truth assisted John Rusnak. Allfirst experienced problems that many corporations have. They had organizational political conditions influencing decisions. The fact that Allfirst was owned by a foreign company introduced some additional complexity in politics. Decision making in corporations can be based on budget and money at the expense of other important considerations. Some decisions are made by looking at short term cost, rather than long term. Employees don't always follow the standards set by the company. And supervisors are can be too busy to enforce the standards. How a corporation and the people in it address these challenges is the differentiator between failure and long term success and satisfaction.

Albert Einstein is quoted as saying "Insanity is doing the same thing and expecting different results." John Rusnak was a person who got himself in trouble and then kept using the same methods to get himself out of trouble. He kept placing the same types of bets hoping for the same outcome: that the dollar would fall against the yen. John Rusnak created a crazy situation that resulted in loss of family stability, position, self-respect and the respect of his community. He has full responsibility for his actions. The corporation has responsibility also. AIB and Allfirst allowed an environment where he could commit his fraudulent actions.

In the case of AIB and Allfirst, the suggestions of the Ludwig report were implemented. The company hopefully learned quite a bit from the analysis and

suggestions in the report. Corporations are ultimately made up of people. People have foibles and imperfections. However, when you bring people together, their strengths can be combined and they can help each other with their weaknesses. They can achieve more together than they might have alone. This is the highest goal of business, a goal it is important not to forget in light of stories like this one.

Epilogue

John Rusnak pled guilty to the charge of bank fraud in October 2002. He was facing a sentence of up to 30 years in prison and a \$1 million fine. Through the plea bargain process, in January 2003, it was negotiated that Mr. Rusnak would serve a seven and a half year sentence in Federal prison at Fort Dix, N.J. He was ordered to repay the \$691 million he lost for the bank. Mr. Rusnak will repay \$1000.00 per month through his five year probation period after the sentence is served for a total of \$60,000. Details for payment plan after probation have not been determined. David Irwin, lawyer for John Rusnak, requested that his client be able to enter drug and alcohol rehabilitation program while in prison. The judge has ordered that Mr. Rusnak enter substance abuse and gambling recovery programs while he is on probation. He is also ordered that he cannot work for a bank for the rest of his life without obtaining permission from the federal government.⁵⁴

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