Integrative Case 6

Alleged Rogue Trader at Allfirst Financial

In February 2002, the Allied Irish Bank Group (www.aib.ie) announced that its subsidiary Allfirst Financial of Baltimore (www.allfirst.com) had experienced a $691 million pre-tax loss. This loss was the direct result of the alleged fraudulent activity of John Rusnak, an Allfirst foreign exchange trader. John Rusnak was hired away from Chemical Bank in New York in July 1993 in an attempt by Allfirst to diversify its revenue stream arising from "directional" currency trading (simple bets that certain spot and forward exchange rates would move in a particular direction). Rusnak sold himself as a trader engaging in an arbitrage between spot and forward currency markets and currency options.

Especially interesting about this loss is that it occurred over several years and went unchecked by an assortment of controls in place to prevent such large trading losses. According to the investigators hired by the board of directors of the Allied Irish Bank Group, namely the Promontory Financial Group (www.promontoryfg.com), headed by Eugene A. Ludwig, former U.S. Comptroller of the Currency, and the New York business law firm Wachtell, Lipton, Rosen & Katz (www.wlrk.com), Rusnak's trouble began in 1997, when he bought Japanese yen forward, with the expectation that the yen would appreciate. This bet was wrong, and when the value of the yen declined, he incurred substantial losses. Recognizing that bank risk controls would soon force the liquidation of his position (and lock in a modest loss), Rusnak added bogus option contracts to his portfolio, creating the appearance that his forward currency position was hedged, when in fact it was not.

According to the Ludwig report (available at the bank's web site), Rusnak's bogus option strategy worked as follows: He would enter into Allfirst's trading system that he had sold a deep-in-the-money put option on yen, expiring on the same day it was written, and would claim that he had used the proceeds to buy an offsetting put option on yen, from the same international financial institution (in Tokyo or Singapore) and the same strike price, expiring about a month later.[1] At the end of the day, upon expiry of the one-day put, it would appear on Allfirst's books that Rusnak was long a deep-in-the-money put on yen, which would offer some protection in the event that Rusnak's forward yen position suffered further losses. Moreover, Rusnak managed to bypass all control and trading activities, designed to ensure the safety of Allfirst.

Suppose that you have applied for a foreign exchange trader position recently advertised by Allfirst Financial. You know about Rusnak's bogus options trading strategy and have also read the report prepared by Promontory Financial Group and Wachtell, Lipton, Rosen & Katz. Anticipating an interview with Allfirst Financial, answer the following questions.

1. Visit the website of the Federal Reserve Bank of St. Louis (www.stls.frb.org), click on *FRED*, and then on *Exchange Rate, Balance of Payments and Trade Data* to access an exchange rate series between the U.S. dollar and the Japanese yen.

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[1] A put option is said to be *in the money*, if at expiry the price of the underlying asset is less than the exercise price of the option.

- What are the fundamental determinants of exchange rates?
- What are the different ways that a foreign exchange rate can be quoted?
- What is the difference between spot and forward exchange rates?
- Present a time series plot of the 1997 observations of the yen per U.S. dollar and the U.S. dollar per yen exchange rates. Did the yen depreciate in 1997? By how much?

2. Suppose that you borrowed 10 million Japanese yen for one year.
   - What is your foreign exchange risk?
   - Describe how forwards, futures, options, and swaps can be used to hedge your foreign exchange risk.
   - What is the difference between an interest rate swap and a currency swap?

3. Discuss the different types of foreign currency options. Also,
   - What is the difference between buying a call option and writing a put option?
   - Explain why two option contracts similar in all respects but with different expiration dates would not trade at the same premiums.
   - Why would deep-in-the-money options never expire unexercised?

4. What changes should Allfirst Financial make to prevent bogus derivatives trading from occurring in the future?