

A Rogue Trader at Societe Generale Roils the World Financial System

CASE STUDY

Societe Generale is one of the world's most respected corporate and investment banks and one of France's oldest and most highly regarded financial institutions. Founded in 1864 by Napoleon III, the company has over 130,000 employees and 22.5 million customers worldwide. The three core businesses of the company include corporate and investment banking, retail banking and financial services, and global investment management services. Known within the financial services industry as SocGen, the company's reputation was badly tarnished in early 2008 by the revelation that a rogue trader was responsible for losses totaling approximately 5 billion euros (\$7.2 billion).

In January 2008, SocGen discovered that one of its traders, 31-year-old Jerome Kerviel, had been making unauthorized trades over the course of the previous year that somehow went unnoticed by the bank's security and risk management systems. The losses represented the largest fraud in investment banking history at a time when world markets were already under pressure due to the U.S. subprime mortgage crisis. Kerviel was so successful in evading SocGen's internal controls that he was able to amass over \$73 billion in uncovered positions, well over the bank's total market capitalization of approximately \$53 billion, en route to the \$7.2 billion loss.

Kerviel himself was a quiet and unassuming trader with an unimpressive pedigree compared to many of his SocGen co-workers. He earned an advanced degree in trading from the University of Lyon before joining the company in 2000. By contrast, many of the bank's top officials and traders attended top French universities such as Polytechnique and Ecole Nationale d'Administration. He initially worked in the company's risk management office, which was scornfully nicknamed 'the mine' by the higher-level trading units. There, he gained familiarity with many of the company's security procedures and back-office systems. He was eventually promoted to a lower-level trading desk known as Delta One. Kerviel's desire to impress his fellow traders, who generally had more prestigious educational backgrounds, may have motivated him to abuse his knowledge of the company's trading transaction systems in his new role.

Kerviel's task at the Delta One desk was to trade index futures. He was entrusted to purchase one

portfolio of European stock index futures and at the same time sell a similar mixture of index futures of different value as a hedge. The goal was to produce a small, low-risk profit stream as a result of performing a large volume of these transactions over time. Kerviel was able to bypass nearly every control for the company's information systems to accomplish something quite different—amassing uncovered and unauthorized positions with the potential to either make or lose billions based on the market activity of that day. He accomplished this by performing legitimate transactions in one direction, but falsifying the hedges that were supposed to 'offset' the legitimate ones. Kerviel made his first fictitious transactions in late 2005, but took increasingly larger positions in 2006 and 2007 en route to his eventual \$73 billion in accumulated positions. How could Kerviel have possibly gotten away with this?

Kerviel's first task was to enter fictitious trades so that they would be undetectable against his real trades. To do this, he entered the false transactions in a separate portfolio, distinct from the one containing his real trades, and did so in such a way that no actual cash was required to exchange hands. When his books were checked together, the real portfolio and fake portfolio offset one another and appeared to be well within Kerviel's limit for acceptable risk. These actions made it possible for Kerviel's supervisors to see a balanced book when in fact he was exposing the bank to substantial risk. The limit for the entire Delta One desk where Kerviel worked was 125 million euros; using this method, Kerviel was able to place single positions worth over 600 million euros.

Kerviel still had to evade SocGen's more thorough internal checks on each trader's books, which would have revealed his fictitious portfolio. Because he knew the schedule of SocGen's internal controls, he was able to eliminate his fake trades from the system just minutes prior to the scheduled checks and re-enter them soon after. The temporary imbalance did not trigger an alert. He also used this tactic to cancel and enter new trades before confirmations of the trades were ever sent to other banks. Kerviel allegedly used other employees' access codes and user information to accomplish this, leading to reports that Kerviel had 'hacked' SocGen's systems to commit fraud. But it is as of yet unclear whether or

not Kerviel performed any complicated computer operations to get around SocGen's controls.

Finally, Kerviel had to somehow keep his schemes from co-workers and supervisors. A common practice among investment bankers is to take scheduled vacation days so that their portfolios can be scrutinized by other bankers while they are away. This increases the chances of uncovering the kinds of fraud Kerviel committed. Kerviel reportedly worked late into the night long after other traders had gone home and took only four vacation days over the course of 2007 to prevent this from occurring. And while his supervisors did spot mistakes in his books, Kerviel was able to cover his tracks enough to quickly 'fix' errors and then continue his fraudulent activities.

The extent to which Kerviel's co-workers and superiors had knowledge of his fraudulent activities while he was committing them is still unclear. SocGen maintains that Kerviel was acting alone, but Kerviel has expressed skepticism that his superiors could have been unaware of his actions. Some reports claim that Kerviel used the computer of his manager, Eric Cordelle, to execute several of his fraudulent trades with Cordelle looking on. Several other brokers supposedly responsible for entering some of Kerviel's authentic trades in full knowledge of his schemes have undergone questioning by police. Kerviel's defense lawyers argue that he acted with the tacit approval of his superiors during his more successful initial period of fraudulent activity, when he accumulated over \$2 billion in gains for SocGen that were never realized. Also, the bank ignored many warning signs that Kerviel was capable of this level of fraud. In 2005, Kerviel was reprimanded for exceeding his trading limits with bets on Allianz SE securities and was told he would be fired for doing so in the future. The bank also reportedly failed to follow up on 75 warnings on Kerviel's positions over the course of the past several years. SocGen dismissed the warnings, claiming that all traders amass similar amounts of warnings over time.

Two striking aspects of Kerviel's fraudulent activity are how simplistic his methods were, as well as how little Kerviel stood to gain personally from his trades. SocGen's controls were capable of detecting more complicated errors and fraudulent transactions than those committed by Kerviel, but in the end Kerviel's simple strategies were more than sufficient to bypass them. The manager of SocGen's investment banking division said of the fraud that "Societe Generale got caught just like

someone who would have installed a highly sophisticated alarm...and gets robbed because he forgot to shut the window." And while Kerviel may have been hoping to secure a larger bonus for himself through his fraudulent trading activity, it does appear that he was motivated primarily by "earning money for my bank."

If SocGen had performed random checks on the trading history of its traders, Kerviel would likely have been caught well before his losses spiraled out of control. Likewise, if SocGen had a system to track deleted or altered trades, Kerviel's methods would have been uncovered quickly and without incident. And if Kerviel's supervisors had bothered to investigate how a trader whose job was supposed to amass modest profits based on careful bets could have racked up billions in gains and eventually in losses, they could perhaps have lessened the damage done to a large degree. Kerviel himself has stated that his supervisors must have known that he was resorting to unusual tactics to earn such large sums of money, but that "as long as you earn money and it isn't too obvious, and it's convenient, nobody says anything."

Instead, SocGen was left with a mess on their hands and may have made things much worse with their handling of it. SocGen decided to unload Kerviel's positions soon after discovering the fraud, despite the fact that the market conditions at the time were decidedly unfavorable. When SocGen dumped Kerviel's positions into the weak world markets, it hastened an even larger plunge in late January 2008. On the Monday after the fraud was revealed, the DAX, FTSE, and CAC-40 indexes fell 7.2, 5.5, and 6.8 percent, respectively, with the DAX continuing to fall in the ensuing days. Their abrupt drop was believed to be a major reason for the Federal Reserve cutting interest rates in the U.S. soon afterwards. Soon after, the SEC launched an investigation into whether or not SocGen violated U.S. securities laws by unwinding Kerviel's positions covertly after the fraud was revealed as well as whether or not insider information played a role in the selling of SocGen stock prior to the announcement of the scandal. Some estimates indicate that the losses incurred by Kerviel amounted to closer to 2 billion euros, and the bank's handling of Kerviel's positions resulted in the remainder of the 4.9 billion euro loss.

The incident was the most glaring example among many of the failures of risk management controls at a prominent international financial institution. Together, these failures contributed heavily to the

subprime mortgage crisis and resulting credit crunch that victimized other investment banks.

So what does SocGen plan to do to prevent future fraudulent trades? The answer remains to be seen. Even if Kerviel is the malevolent genius that SocGen claims, his ability to accumulate positions larger than the bank's net worth indicates severe failings in the company's control systems. One former SocGen risk auditor, Maxime Legrand, called the control procedures used to monitor the activity of its traders a sham and that the management "pretend(s) to have an inspection to please the banking commission." In the wake of SocGen's fraud and other investment banking failures like the collapse of Bear Stearns, financial institutions will be under a great deal of pressure to improve their risk management systems and internal controls.

CASE STUDY QUESTIONS

1. What concepts in this chapter are illustrated in this case?
2. Describe the control weaknesses at SocGen. What management, organization, and technology factors contributed to those weaknesses?
3. Who should be held responsible for Kerviel's trading losses? What role did SocGen's systems play? What role did management play?
4. What are some ways SocGen could have prevented Kerviel's fraud?
5. If you were responsible for redesigning SocGen's systems, what would you do to address their control problems?

Sources: Natasha de Teran, "Market Targets Loopholes in Equity Derivatives," *Financialnews-US.com*, March 28, 2008; Brian Cleary, "Employee Role Changes and SocGen: Good Lessons From a Bad Example," *SCMagazineUS.com*, April 1, 2008; Nicola Clark and David Jolly, "French Bank Says Rogue Trader Lost \$7 Billion," *The New York Times*, January 25, 2008; Nicolas Parasie, "SocGen Discloses More Detail, Chronology of Alleged Fraud," *MarketWatch.com*, January 27, 2008; Andrew Hurst and Thierry Leveque, "SocGen Under Pressure as Rogue Trader Released," *Yahoo! News*, January 28, 2008; David Gauthier-Villars and Carrick Mollenkamp, "The Loss Where No One Looked," *The Wall Street Journal*, January 28, 2008; Randall Smith and Kate Kelly, "Once Again, the Risk Protection Fails," *The Wall Street Journal*, January 25, 2008; Adam Sage, "Ex-SocGen Risk Auditor Calls Systems a Sham," *The Times*, February 7, 2008; "Trader Says SocGen Bosses Had To Know," *The New York Times*, January 29, 2008; David Gauthier-Villars, Carrick Mollenkamp, and Alistair Macdonald, "French Bank Rocked by Rogue Trader," *The Wall Street Journal*, January 25, 2008; David Gauthier-Villars and Stacy Meichtry, "Kerviel Felt Out of His League," *The Wall Street Journal*, January 31, 2008; Heather Smith and Gregory Viscusi, "SocGen Threatened to Fire Kerviel in 2005, Court Document Says," *Bloomberg.com*, March 25, 2008.