# Société Générale:
# The Anatomy of a Fraud

## Paris, Monday the 24th of January, 2008:

**8, 00 AM - Société Générale announces that a broker has frauded the bank with 4, 9 billion Euros**, through various operations with derived financial instruments on the European market. Although the fraud had been discovered on the 20th of January, the announcement was made together with the publication of the previous year's results. This loss adds to the one of 2 billion Euros caused by the US sub-prime mortgage crisis, the two incidents causing a considerable profit diminishment, compared to 2006.

-as soon as the 4, 9 billion euros loss was announced, the Société Générale titles were suspended from transaction on the Paris stock exchange.

-a group of Société Générale stockholders filed a grievance against the bank: the attorney of about 100 Société Générale stockholders announced the deposal of a complaint against "fraud, breach of trust, forgery and abetting". The attorney stated that the plaintiffs are from France, Belgium and Holland and "have almost entirely lost their shares" reacting as a consequence "extremely rapidly".

-at lunch time the Société Générale titles resume transaction with a decline of 3, 64%. Within 10 minutes of the resumption, the titles drop another 4, 84%.

- Daniel Bouton, Société Générale Chairman and Chief Executive Officer, and Philippe Citerne, co–chief executive officer, announce their decision to forgo the bonus for 2007 and their fixed wages at least for the next 6 months.

- Société Générale files a lawsuit at the Nanterre Court of Justice, against Jérôme Kerviel, the employee involved in the fraud, accusing him of "creating fraudulent documents, using forged documents and making attacks on an automated system".

### The following days:

French police raided the Paris headquarters of Société Générale and Kerviel's residence.

Jérôme Kerviel is taken into police custody and he states that he will collaborate and give the investigators all the answers they need.

Monday, the 29th of January, the French Securities Regulator (AMF) reveals that on the 9th of January, **Robert Day**, member of the Société Générale board of directors, **sold shares worth 85, 7 million euros.** After this announcement, the attorney of 100 Société Générale shareholders filed a new complaint against "market manipulation and the use of privileged information"

Tuesday, the 30th of January, AMF announces that **Robert Day**, member of the Société Générale board of directors, who had already **sold shares** worth 85, 7 million euros on the 9th of January, sold again, on the 18th, shares worth 40, 5 million euros.

Société Générale immediately issues a press release stating that Robert Day "had not been informed of the losses caused by the Jérôme Kerviel fraud when he sold the shares".

Jérôme Kerviel is charged with "breach of trust", "creating fraudulent documents and using forged documents" and "informational fraud by attacking an automated data base" and is released from police custody but held under judiciary control.

**The French authorities raid the residence of Olivier Kerviel, Jérôme Kerviel brother.** Olivier Kerviel, a former broker, had been forced to resign his post at BNP-Paribas because of transactions made with the clients' money, without their consent, in order to attain personal financial gain.

## Who is Jérôme Kerviel?

Jérôme Kerviel, Société Générale employee since the year 2000, worked in the transaction monitoring department and in 2005 he was transferred to the Delta-One team, where he was in charge with future transactions, relying on the European trading index. From the data provided by the bank it is clear that Jérôme was not a "star", earning less than 100.000 euros per year.

The Lyon University, where Kerviel got his master's degree in Organization and Control of Financial Markets with the qualifier of "assez bien" , described him as an ordinary student, far from being anywhere close to "informational genius" as Société Générale portrayed him in order to explain how he had managed to deceive all the control measures.

Meanwhile, Jérôme Kerviel has become a star. 10 days after the scandal was triggered, he holds no less than 2.600.000 entries on Google: profiles on Facebook, Wikipedia entrees (in French, English, Spanish, Danish and even Chinese), video clips and numerous requests of domain purchase on the Internet: jeromekerviel.com, jerome.kerviel.com, jeromekerviel.net.

"Fans" can now purchase T-shirts with the inscription "Jérôme Kerviel's girlfriend", available in different colours at 17, 99 dollars a piece. Or they can enter the "Save Kerviel, the victim of an unprecedented media lynching" support committee. Let us not forget the Facebook groups, the "Fan Club Jérôme Kerviel" group and the charitable alternative – "If 5 billion people join this group and donate one euro each, we can save Jérôme Kerviel's carrier".

## How does Kerviel defend himself?

*"My first similar experience goes back to 2005. I took a stand on Allianz stock, making the bet that the market would drop. It just so happened that shortly after, the market dropped following the London attacks, and there it was, a €500,000 jackpot. I then came up with the idea of a deal to cover my position. I had mixed feelings about this, because I was proud of the result and altogether surprised.*

*It generates the desire to continue, there is a snowball effect"* he confessed to the police.

He continued with these strategies, his superiors appearing not to observe it. Kerviel declared that he operated the transactions because he wanted his reputation as a trader to improve, not because he wanted to cause the bank damage. *"Above all, I wanted to earn money for my bank".* He admitted to concealing his actions from the superiors but he made it clear that **other employees trespass the bank set of rules as well.**

Kerviel decides to continue his gambling streak, covering it up with fake deals. *"In January 2007, I reduce the DAX [the German stock market index] position because I stat to think that the Asian market is changing and if this confirms I could lose my position, if the market raises… In February the Asian market suffers a small fall and I reduce my position. At the end of February I no*

*million Euros I am more than pride and satisfied".*

He bets on the U.S sub-prime mortgage crisis, in March-July he loses because the markets are still rising. Nevertheless, as of July, the American market starts to collapse and he wins 500 million euros. Once obtaining such a result he can not stop. In November he managed to win even 600.000 per day.

**In December he wins 1, 4 billion Euros and doesn't declare it to the bank. Hence he announces his supervisors that he won only 55 million euros, which brings him a 300.000 euro bonus.** The supervisors are surprised by the sum earned by Kerviel and question how he could raise such an amount.

"I provided fake receipts, I faked e-mails using the internal mailing system, everything I had to do to modify the contents" confesses Kerviel.

Not being careful enough, after the 2007 holidays, he finds himself in the midst of an internal control, initiated by the management. The control had been organized because, as Kerviel himself says, he didn't respect one simple rule: ***"A trader who doesn't take any days off is a trader who doesn't want to leave his book to another".*** The control lead to a great outrage inside Société Générale, but outside of it as well.

According to Kerviel, his supervisors were aware of his operations to dissimulate the transactions, which he qualifies as a "habit" inside the bank. *"My supervisors were turning a blind eye".*

As Jérôme Kerviel puts it, he dissimulated the operations with the implicit knowledge of the management. *"I admit taking very high positions which can be qualified as exceeding my mandate, and covering them up with a fictitious operation",* he admits, *"but I can not believe that my supervisors weren't aware of the sums I was operating with, it is impossible to obtain such large profits with small amounts. This confirms further more my conviction that as long as I was generating cash the supervisors were keeping quiet about the modus operandi and the sums involved"* he declared to the police.

## How was the fraud discovered?

Friday, the 18th of January during a routine control in the "market transactions room" the risk inspectors detect an anomaly. Kerviel committed an error sending a buying order without adding the fictitious guarantee. The bank management is alerted. The inspectors continue the investigations on Sunday the 20th and discover payment orders worth tens of billion euros that cause the bank to face a huge financial risk of 7 billion euros, as well as loss of stability and reputation.

## How did Société Générale manage the crisis ?

The Governor of the French National Bank is informed on Sunday, the 20th of January, together with the general Secretary of AMF (French Securities Regulator). A crisis committee is convened in order to elaborate a rescue plan. It is decided to keep the incident secret so that the bank can discreetly re-sell on the market the products that Kerviel had bought. The 48 billion are paid off in installments during the 21st -23rd of January interval.

## How was it possible?

According to the bank, for 12 months, the 31 year old Jérôme Kerviel had tricked all the security systems. The method of operation was basic: he would issue a payment order and he would hide it with another fictitious selling order. As a result the bank only saw the balance of threse two operations, meaning it saw nothing.

According to Der Spiegel, for some weeks, Jérôme Kerviel massivelly invested in the German stock market index, DAX, acquiring a total of 140.000 contracts. DAX dropped 600 points at the beginning of January and on the 18th of January; the trader lost about 2 billion euros only from these investments.

The French specialists are confused about the methods used by the Société Générale trader. Le Monde writes that they are bewildered and declare that the problems aren't of technical nature.

The investments made by the French financial sector in this area contradict as well the hypothesis. **Only in 2007 the sums invested by the French banks in the informational programs and services reached 12, 8 million euros.** "Ten years ago such a fraud would have been possible. But now, with all the control methods that are functioning we can't understand how it could happen. Today's technical solutions can even automatically warn if the amounts go over certain thresholds", declared a French IT specialist for Le Monde. According to the specialists quoted by the French press the premises of this fraud should be sought in the way the bank defined its risk control. "Some banks trust their employees very much, especially when they have proven their capacity to earn money", underlined the IT specialist quoted by Le Monde.

Christophe Pérignon, professor at Hautes Etudes Commerciales from Paris doesn't believe that Jérôme Kerviel could have done everything by himself, given the huge sums of billion of euros he manipulated. He continues by saying that Société Générale is known as a trademark institution concerning risk management and financial engineering. It is equipped with mandatory control systems, multiple and redundant, so that nothing gets past them. But these systems are provided with information by the traders, so if Jérôme Kerviel introduced false data the system couldn't help but believe him. This was possible because, for a number of years, before he became a trader, Jérôme Kerviel used to work in transaction monitoring and he knew the procedures very well.

It is known that, when a working day ends, banks have to calculate the risk value (anticipation of maximum loss) and that Société Générale had a tendency to exaggerate its risks, applying the caution principle. Having this in mind, it is curious why nothing about this case was observed.

Making a long story short: Jérôme Kerviel was working with a bond portfolio. Mainly, he had the mission to buy shares and sell them at a higher rate. All the traders have a limit fixed by the risk control department that depends on the decisions made by the general director. The limit is fixed according to the experience of each trader.

But no trader, not even a senior one is authorized to engage such high risks. It is impossible. Every order he issues is registered by an informational system that sets off an alarm, if the invested amounts are exceeded. This means that the trader found a way to fool the system. For instance, maybe he issued orders in the name of his colleagues. He worked for a long time in the middle-office, the service in which the orders are registered. This rarely happens. The dealers usually enter the front office directly and don't get a hold of the very complex informational system that registers the orders. He knew when and how to act. In the critical moment when the buyer could alert the bank, he would erase and replace the order with another. The mechanism was almost perfect. It is assumed that he had modified the control system in order to create the impression that he took positions to cover himself, meanwhile he was sending bigger and bigger buying orders. He manipulated the informational system; he used access codes that weren't his, everything to camouflage a part of the transactions he was making and to make them seem less risky than they really were. Kerviel accumulated positions of over 50 billion euros, an amount that is outrageous and exorbitant for a bank with an exchange capital of 35, 9 billion euros.

## Dissimulation techniques

Jérôme Kerviel explained to the investigators what the "mattress" technique was, an illegal procedure used by traders to dissimulate hyper speculative positions. When a manager estimates that the profit–loss objectives have been reached, he can decide to report the remaining amounts in the next exercise, dissimulating it through different methods. "As long as we earn and it doesn't show too much, as long as it's convenient, no one says anything" says Jérôme Kerviel, stating that his superiors encouraged risk taking. Describing the hypocrite attitude of his supervisors he ends: "As long as it doesn't show it's all right. If you get caught you are hung".

## Red flags

Kerviel sustains that his firs motivation was to earn money for the bank not for himself. Nevertheless the possibility of earning a bonus also motivated him. He admitted declaring the 55 million euros at the end of November in order to negotiate a bonus.

He is certain that the superiors were aware of the positions he took because there had been alerts from the bank's control system and his colleagues were being questioned. In November 2007, on intra-day successive operations, he went back and forth on the DAX [the German stock market index] and seeing it was juicy, took positions from coworkers' automated machines at the same time and this everyone saw and knew. On that day alone, he made 600,000 euros.

Another warning sign was the ratio between the 55 million euros result reported for 2007 and the number of operations Kerviel had processed.

In November 2007, Eurex Germany asked Société Générale information for the second time about the operations Jérôme Kerviel was processing. He was questioned by the bank and justified all the operations. In January 2008 he exceeded his limit and was sent emails with questions. For validation he forged an email.

Why didn't the bank's internal risk control system try to stop him? Kerviel thinks that it was in the bank's interest as well to let him make money. If anything had been discovered the entire team would have been fired, including his supervisors. **In other words, even if he won or lost, it was in the bank's interest to turn a blind eye.**

**The similarities between Jérôme Kerviel and Nick Leeson**, the trader who caused Barings Bank a loss of 850 pounds (about 1,3 billion dollars).

-they both had remarkable performances which enabled them to act freely, when in fact these performances should have raised suspicions.

-they both managed to hide information from the banks. Nick Leeson could dissimulate the information mainly because he was located in Singapore.

Jérôme Kerviel managed to cover up information too, but this is where the similarity stops. He wasn't geographically isolated, he was in Paris and, in the last 15 years, the transparency of the financial markets has increased considerably and internal controls have become trickier.

## The Irony

Only a few hours after the announcement of the historical 7 billion euros loss, **Société Générale is named by Risk Magazine "Equity Derivatives House of the Year".**

## Opinions

**Nick Leeson**: *"The banking system hasn't learned its lessons from my adventure. It is the exact same story as Barings 1995. The gaps in the system have not been* *covered. The banks are only preoccupied with earning money, not with protecting. These risk zones don't hold enough interest. The banking system is as vulnerable as it was in my time. Illegal operations probably happen every day, but the banks don't make them public because it would cause the clients to lose their trust. Even so, I find it extremely hard to believe that such a fraud was possible".*

**Jean-François Copé**, president of the parliamentary group UPM (Union pour un Mouvement Populaire) states the necessity of bank regulations that forbid the movement of "back-office" employees to "front-office" and creating a psychological observation system of the company's personnel.

**Ion-Marc Valahu**, trading chief at Amas bank, Switzerland: "I'm sorry, but it's very hard for me to believe that a trader, on his own, could cause a loss of 4,9 billion euros without anyone noticing".

**Nicolas Sarkozy**, French president (aiming at Daniel Bouton, PDG Société Générale): *"When something like this happens it can't remain without consequences responsibility-wise. Everyone has to question their own responsibility. I don't like to judge people, especially when they are in difficulty, but we are part of a system in which we are remunerated extremely well and, without any doubt, legitimately, but when something as serious as this turns up, you can't exonerate your responsibility."*

**François Chérèque**, general secretary of CFDT (Confédération Française Démocratique du Travail)*: "I emphasize the fact that the Société Générale employees of the stocks: they are the bank's largest stockholder. The 58.000 employees of the French bank will individually lose between 8.000 and 10.000 euros, because if there is no profit, there is no profit participation as well."*

**Christian Noyer**, Governor of the Banque de France, declares that such an incident must never happen again and that the processes that have failed will be thoroughly examined and conclusions regarding the dysfunctions of the internal control will be drawn. He pronounces himself **for the creation of a "Chinese Wall" between the traders and the back-office where their actions are controlled and validated.**

**Laurent Fabius**, ex prime minister, estimates that the SG incident has an impact similar to "***the mad cow disease and the toxic cloud of Chernobyl cumulated".***

**PCF (the French Communist Party)** representatives estimate that announcing a loss of 7 billion of which 4, 9 billion were lost by a single employee, Société Générale invents the **"Dreyfuss-trader"**, hinting to capitan Albert Dreyfuss, accused of espionage and afterwards rehabilitated.

## The Lagarde Report

On the 4th of February, 2008, the French Minister of Finance, Christine Lagarde, presented the prime minister, Francois Fillon, with **an official report on the 4, 9 billion euros fraud at Société Générale caused by Jérôme Kerviel.** It wasn't an inquiry report, its purpose being to find solutions in order to prevent similar situations. It is the first of three documents requested by the prime minister, Francois Fillon. Another report will be published by the Central Bank and yet another by the independent directors of Société Générale.

The report is considered to be extremely harsh towards the French bank and reveals **the lack of employee control, security issues concerning the informational computerized system but also the lack of a management-alert mechanism concerning the transactions of individual traders.** Lagarde shows six errors discovered in the internal control mechanisms of the second largest French bank, five of which belonging to the middle-office's attributions. **The errors are of informational, but also of human nature.** It refers especially to Kerviel's superiors' attitudes, who have neither considered the Eurex warnings, nor observed the fact that in the past year the trader had not taken any days off, and in the last days of each month –when he had report to the Central- he always seemed frantic.

## Famous cases of financial fraud

### Nick Leeson

In 1995, the trader Nick Leeson caused the Barings bank, for which he was working in Singapore, a loss of 850 million pounds (1, 3 billion dollars). He made speculative operations with the clients' money, loosing extremely large sums and causing, all by himself, the collapse of an important investment bank. For three months, Leeson had been buying over 20.000 futures contracts, worth about 180.000 dollars each (136.243 euros). About three quarters of the 1, 3 billion dollars loss he caused Barings, came from these contracts. When the bank's management discovered the amplitude of the loss, it informed the British National Bank that Barings was bankrupt. A few days after Nick Leeson's arrest in Frankfurt, on the 2nd of March, 1995, Barings Bank was sold to the Dutch financial giant, ING, for the symbolic sum of one pound, the British bank's 230 year history. The bank was renamed ING Barings, but after ING dropped Barings the logo remained ING. Leeson was sentenced to six years and a half in jail and fined 70.000 pounds for embezzlement and forgery. He was released in 1999 after he became ill with colon cancer of witch he was finally cured. The ex trader even wrote a book called "Rouge Trader" which has been made into a film, "The Trader", the main character being played by Ewan McGregor. Presently, Nick Leeson coaches soccer at the Irish club Galway United.

### John Rusnak

Another important case of fraud is the one of Allfirst bank. The central character of the fraud was John Rusnak, currency trader. Through a sophisticated scheme spread over a period of almost five years, he lost 691 million dollars (430 million pounds). As in the Barings case it was discovered through an error in the organizational structure of the treasury department. The illegal activities started in 1997 and their purpose was to cover the losses caused by the purchase of forward yen contracts. Furthermore in 1999, Rusnak made preferential deals with some financial institutions, including Bank of America and Citibank. In January, 2003, John Rusnak was found guilty and sentenced to seven and a half years in prison.

### National Australia Bank

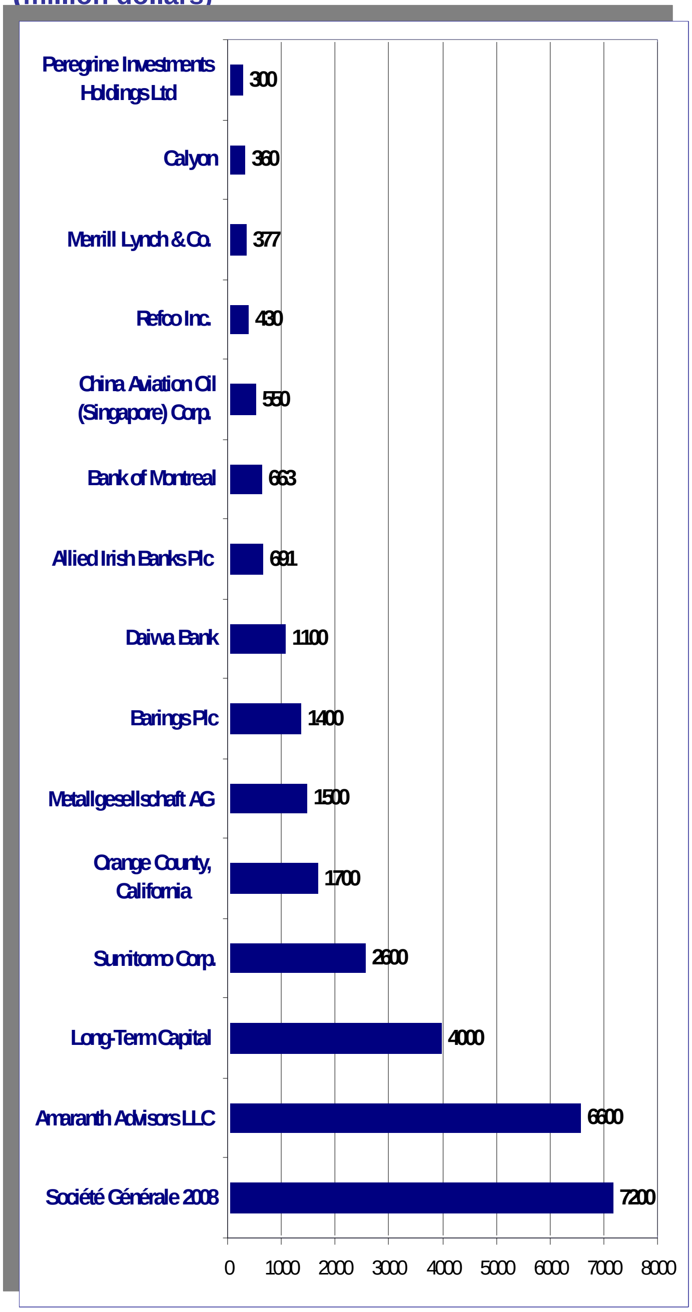
The largest Australian bank suffered in 2004 a loss of 360 million Australian dollars after four of its dealers got involved in fictitious “FX options” operations.
David Bullen, one of the four, published a book with confessions, describing the foursome he was part of as very well paid and lightly supervised, which took enormous risks with the bank’s money.
“We could take any kind of risk, for any sot of amount, without anybody supervising us” he came clean. Finally a new employee gave the warning and the incident was exposed, putting an end to Frank Cicutto, Chief Executive Officer La National Bank of Australia.

### Sumitomo, the Japanese house of commerce, (1986-1996)

Yasuo Hamanaka, called “the king of cooper”, chief copper trader for the Japanese trading company Sumitomo Corp., lost 2,6 billion dollars effectuating fraudulent transactions for a decade. He forged the signatures of his two supervisors so that he could be able to make transactions on the cooper market and to make financial transactions.

**Clayton, the American corporate and investment banking entity**, branch of Crédit Agricole, (September 2007)
The unfortunate investment of an American trader, from Clayton’s New York branch, causes a gap of 250 million euros. He intervened on the credit markets with abnormally high amounts taking excessive risks, acting without authorization and exceeding the limits established by the bank.

### Top 15 financial frauds around the world (million dollars)

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