The Perfect Storm:
Société Générale and Jérôme Kerviel

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> "Daniel Bouton [Société Générale CEO]… initially presented the incident as a short-lived rampage by a rogue trader who was able to hack into the bank's computer systems. But interviews with SocGen executives, board members, investigators, and rival bankers--and Mr. Kerviel's testimony to French prosecutors -- have revealed a swaggering, hard-driving culture within SocGen that allowed even a mid-ranking employee in the least glamorous corner of the trading floor repeatedly to make enormous bets with the bank's money without being detected." [R1]
>
> *The Financial Times, February 7, 2008*

1. Introduction

The Incident

Question: What happens when you mix an ambitious young trader, with an intimate knowledge of front-to-back procedures, a supervisor who didn't know much about trading and an environment without the proper trading controls? Answer: A perfect financial storm worth billions of euros ... in losses.

This perfect financial storm is where Société Générale, France's second largest bank, found itself on January 24, 2008. According to the press release the bank published on their website early that morning:

" Société Générale has uncovered a fraud, exceptional in its size and nature: one trader, responsible for plain vanilla futures hedging on European equity market indices, had taken massive fraudulent directional positions in 2007 and 2008 beyond his limited authority. Aided by his in-depth knowledge of the control procedures resulting from his former employment in the middle-office, he managed to conceal these positions through a scheme of elaborate fictitious transactions. Given the combination of the size of the positions and the very unfavorable market conditions encountered, this fraud has a negative impact on Euro 4.9 bn...". [R2]

To be precise the amount is 4,915,610,154 euro [R3]. This figure is astronomical: it represents the largest trading loss in banking history. As a comparison, the loss incurred by famous rogue trader Nick Leeson, which sent Barings Bank into bankruptcy in 1995, was 850 million pounds sterling [R4]. Moreover, the notional of Kerviel's un-authorized trades amounted to 50 billion euro in January 2008 – far larger than the total market capitalization of the whole Société Générale at the time.

The Lone Gunman

The cause of the problem, as stated by the bank, was a rogue trader. On the same day that the announcement of the losses was made, unconfirmed press reports identified him as Jérôme Kerviel, a young junior trader working in an arbitrage equity desk.

Since the beginning, Monsieur Kerviel has recognized his participation in the trading activities that led to the loss, but insisted that SocGen management knew about them. He declared that [R5] "I accept my share of responsibility but I will not be made a scapegoat for Société Générale."

Kerviel has been variously portrayed in media reports.

On one hand, for example, the Bank of France Governor Christian Noyer described him as a "genius of fraud" [R6] and a “computer genius” [R7]. Daniel Bouton, Société Générale CEO added that he was a “terrorist” [R8] and an “evil genius” [R9].

On the other hand, Andre Tiran, Dean of the faculty at Lyon 2 University, where Kerviel earned his master's degree in middle and back office market operations, said "He is a student with whom we had no problems, who was completely a totally normal student, very hard-working and with very good results". [R10] Also, a psychologist who recently examined him described him as a “balanced adult personality’’ [R11]. Finally, a waiter at the Café Valmy next door to the Paris headquarters of Société Générale remembers Jérôme Kerviel as being different to many of the brash banking types that drank there. “He would normally drink a beer. He didn’t show off or anything by drinking champagne,” says the waiter. “You would have no idea he was playing with that amount of money. He just seemed a normal bloke.” [R12]

The Trading Floor

But perhaps to focus exclusively on Jerome Kerviel as a lone gunman, i.e. single mastermind and executor of the affair, is arriving at a hurried conclusion. Maybe to understand the financial storm we should enhance our perspective and consider not only the man, but his activities, his peers and the corporate atmosphere in which the events occurred.

“Who are you, Société Générale? Who are you? How do you create men like this?" Was the question raised by Oliver Metzner, defense lawyer for Mr Kerviel, on the last day of the proceedings in the courtroom at the Palais de Justice in Paris in June 2010. [R13] As explained by Chris Whalen, director of Institutional Risk Analytics, banks are increasingly moving away from traditional banking into riskier trading activities. SocGen's problem, in his view, was "a rogue business model, it's not a rogue trader." [R14]

This perception resonates with Kerviel’s own declarations:

“… dans une sale de marches, le modus operandi idéal tient en une phrase: savoir prendre le maximum de risques pour faire gagner la banque le maximum d’argent. Au nom d’une telle regle, les principes les plus elementaires de prudence ne present pas lourd.” [R15]

[“… on the trading floor, the ideal modus operandi can be stated in a single phrase: knowing to take the maximum risk to make the bank earning the maximum amount of money. On the name of such rule, the most elementary principles of prudence have no place.”]

How we got here?

In the meantime, many questions remain to be solved of the Kerviel affair. How one of the world’s largest and most prestigious investment banks, declared Derivatives House of the Year in 2007 by Risk Magazine, allowed a single junior trader to put at risk billions of euros and go unchecked for years? Why Mr. Kerviel managers ignored multiple warning signs that would have allowed them to stop the young trader long before he was able to do so much damage? What motivated Kerviel to take such large risks and not profit himself personally? Who is indeed Jérôme Kerviel? Who is Société Générale?

Table 1: Key People*

Jérôme Kerviel, junior equities trader at Delta One Listed Products (DLP)
Thomas Mougard, trading assistant to Kerviel
Eric Cordelle, n+1, direct supervisor of Kerviel in Delta One Listed Products (DLP) until Jan 2007
Alain Declerck, n+1, direct supervisor of Kerviel in Delta One Listed Products (DLP) from April 2007
Martial Rouyere, n+2, manager of Delta One
Jean-Pierre Mustier, director of the investment banking division (SGCIB)
Daniel Bouton, Société Générale CEO

*as of the time of writing, June 2010, all these individuals have left Société Générale.

Table 2: Chronology

2000	June: Kerviel concludes Master of Finance, University of Lyons August: Kerviel joins Société Générale Middle/Back Office
2001	
2002	
2003	
2004	Kerviel promoted to Trading Assistant in the Front Office
2005	Kerviel promoted to Junior Trader in Front Office, First fraudulent positions for 150M EUR
2006	More directional fraudulent positions for 300M EUR?
2007	June: More directional fraudulent positions for 300M EUR, loss of 2.5 billion euro October: France’s banking regulator the Autorité des marchés financiers (AMF) warns Société Générale about weak risk management controls November: EUREX warning to Société Générale about Kerviel ignored December: Kerviel’s non-authorized trading results in a net end-of-year gain of 1.5 billion euro
2008	January: Discovery of fraud, unwinding of positions results in 6.4 billion EUR losses February: fraud charges against Kerviel dropped by French police July: AMF fined Société Générale 4 million euros for deficient internal controls May: Publication of Mission Green and PricewaterhouseCoopers reports
2009	August: Investigative magistrates decided that Mr. Kerviel must stand trial on criminal charges, including forgery of documents and illegal entry into company computer systems
2010	May: Publication of Kerviel’s book “L’engranage” June: Criminal trial takes place in Paris

2. Background

Société Générale

Société Générale - also known as "SocGen" in the international financial world - is one of the oldest banks in France. The original name was *Société Générale pour favoriser le développement du commerce et de l'industrie en France*. Founded in 1864 the company was owned by the French government. On July 29, 1987, the government sold its interest in Societe Generale, allowing the company to go public and its shares to be traded on the Paris Bourse exchange. The long term debt of the group is currently ranked A+ by S&P, Aa2 by Moody's and A+ by Fitch. [R16]

Société Générale maintains extensive activities worldwide, its headquarters are in the Tours Société Générale in the business district of La Défense in the city of Nanterre, west of Paris. It has 2,795 branches around the world and more than 40,000 employees.

Its three main divisions are Retail Banking & Specialized Financial, Corporate and Investment Banking (SGCIB) and Global Investment Management & Services. SGCIB was made up of three departments: Global Equities and Derivatives Solutions (GEDS), Fixed Income, Currency and Commodities (FICC), and Capital Raising and Financing.

Société Générale is developing its Corporate and Investment Banking businesses under the SGCIB brand name, which was introduced by the Group in 1998. Bolstered by a sound client base and a recognised capacity for innovation borne out by the league tables.

Starting in 1997, the Chairman of Société Générale was Daniel Bouton, a former cabinet director under Alain Juppé. In May 2008, the Chief Executive Officer became Frederic Oudea.

The Delta One Listed Products Desk

Jerome Kerviel worked as a trader for the Delta One Listed Products (DLP) a unit within Corporate and Investment Banking (SGCIB) division and the Global Equities and Derivatives Solutions (GEDS) unit.

In modern financial institutions traders work in the front office, by operating directly on the markets by placing orders. The middle office acts as the link between the front office and the back office. It standardizes the transactions conducted by the traders and sends them to the back office for processing.

Delta One products are a class of financial derivative which are non-optional and as such have a delta of one - that is a 1% move in the underlying results in a 1% move in the derivative. The activity of the Delta One desk involved arbitrage. This is done by acquiring a portfolio of financial instruments and at the same time selling a similar portfolio, but with a slightly different price. This is possible due to the difference in pricing of correlated assets. Traders then take a long position with a set of portfolio, and a short position on a similar set. When a slight difference. Because these differences could be very small, arbitrageurs operate on trades with very large notionals. In any case the arbitrage strategy is considered of low risk, as both portfolios (short and long) should more or less compensate each other.

Jerome Kerviel's activities in the Delta One involved trading: (1) Forwards and Futures, in which the underlyings were typically stock indices such as DAX, EUROSTOXX. (2) Options: Turbo Warrants (emitted by SG or others) which are a type of barrier options on the type down-and-out call or up-and-out put.
Joining the Delta One desk had been Kerviel's goal since joining the bank, according to his curriculum vitae, which stated his objective as: "Reach a position as retail listed derivative products trader, managing a volatility and Delta One book."

The head of Delta One at Societe Generale was Martial Rouyere, who led a staff of 24 traders, with eight traders covering the Delta One Listed Products (DLP) desk. In April 2007, Eric Cordelle joined the Delta One as desk head for Delta One Listed Products (DLP). He had experience of four years in the Tokyo office of Societe Generale working on structured products but not on trading. Before him the head of DLP has been Alain Declerck.

Jérôme Kerviel

Jérôme Kerviel was born on the 11 January 1977. He grew up in the small town of Pont-l'Abbé, in Brittany in northern France, in a family of modest means. His mother, Marie José, is a retired hairdresser and his father, Charles, who died in 2006, taught metal working.

Jérôme graduated in 2000 from University Lumière Lyon 2 with a Master of Finance specializing in organization and control of financial markets.] The university's financial program, which was initiated in the 1990s with the support of France's larger banks, was intended to prepare students for middle and back-office positions in the trading departments of financial institutions. Prior to that he received a bachelor's degree in Finance from the University of Nantes.

Kerviel was hired by Societe Generale on 1 August 2000 and assigned to various roles in the middle office, which monitors and manages the bank's risk exposures. In 2004 he was promoted to Trading Assistant, and in March 2005, he was promoted to Trader and Market Maker at the bank's Delta One trading desk. [R17]

3. The Deception: 2005-2008

The non-authorized activities Jerome Kerviel started at the beginning of 2005, just after having moved from the middle to the front office. Contrary to his official mandate he started to build-up a series of directional positions, i.e. non-hedged trades essentially betting on the direction of the movement of the market. These positions increased from a notional of 150M euro in 2005, 350M euro in 2006, 3 bn euro in 2007 and 50 bn euro in January 2008. Kerviel covered these positions with a combination of techniques using a false portfolio, creating the illusion that the risk in the real portfolio was hedged.

2005: The Allianz Stock Operation

Between September 2004 and January 2007, the line manager of Kerviel was Alain Declerck. In 2005, Declerck realized Kerviel had an overnight non-covered position for 15 million euro on ALLIANZ stock in the ELIOT – the computer trading database of Societe Generale.

When asked about this situation, Kerviel said to his superiors that he earned 200,000 euro in a single morning. Kerviel in fact understates the earnings which are really 500,000 euro - an attitude which he will repeat in the future and says that these are intraday positions.

M. Kerviel admitted that he had been briefly racked by guilt when he hit the trading "jackpot" on the day that terrorist bombs exploded in London in July 2005. "I made €500,000 in a few seconds... I was jubilant. Suddenly I realized that I was having fun because people had been hurt by bombs. I ran to the toilet and vomited." [R18]

The situation came to light as Declerck, who had a background as a trader, logins remotely to ELIOT and checks the Kerviel trading station. In this way he realized that this is not an intraday position, that the 1 million euro daily limit has been breached and that the operation lasts for several days. Declerck notifies his superiors Mr Taylor (n+2 of Kerviel) and Mr Bonin (n+3) of the situation. There is a meeting that same night between the three of them. Kerviel is given an informal reprimand, after which the case is closed. There are no repercussions for the trader but surprisingly his daily limit is increased to 5 million euro [R19]

2006: The Equities Operations

In spite of the previous reprimands, Kerviel continues to take directional positions during 2006 for millions of euro. This occurs in spite of his manager capacity of checking his trading positions at any moment. Of course he is not capable of knowing the deceiving techniques used by Kerviel to hid his positions. The size of his fraudulent directional positions on equities increased, reaching a total amount of about 135 million euro in 2006. [R20]

2007: The DAX and EUROSTOXX Futures Operations

On the 26th January 2007, Alain Declerck leaves his position as DLP unit manager and is not substituted until 1st April 2007. Martial Rouyere, his superior, as manager of Delta One does not implement any monitoring of the trading activities in this period. It is in the interregnum that Kerviel will start his deception activities in earnest. He will subsequently declare "C'est surtout en fevrier que je suis monte" (declaration 197/5). [R21]

In the absence of a desk manager for two-and-half months, the monthly earnings of the unit are validated by the most senior trader, without any type of effective control. Kerviel himself validates his earnings during March. In this way in February Kerviel makes a gain of 28 million euro, in a position that he said to be between 1 and 2 billion euro. [R22]

In spite of the arrival of a new desk manager on April 1st 2007, Eric Cordelle, the controls remain weak. Between the 15th March and the 23rd July 2007 Kerviel took stronger short positions on European index futures. By 30 June 2007 the notional of the position on the DAX futures reaches 28 billion euro. In this period his trading volume reaches an average of 1700 contracts per day.

By June 2007, the news of the subprime crisis start circulating around the world. Most analysts think that this crisis will not affect Europe, but Kerviel believes that it will have a negative impact. The markets continue to climb and Kerviel’s positions correspond to a massive mark-to-market loss of 2.5 billion euro. Kerviel stands his ground and keeps his positions on, convinced that the market will eventually move in his direction.

At the end of July 2007, the financial markets worldwide start to crumble as the result of the fears if the US subprime crisis. This is the direction anticipated by Kerviel. He then unwounded his position during July and August 2007 and makes a profit of 500 million euros. [R23]

In the following months, between 11 September 2007 and 6 November 2007, Kerviel constructs a new set of short positions on the DAX (composed of 80,000 futures) and on the EUROSTOXX (composed of 350,000 contracts). The notional of the operation is for 30 billion euro – an amount similar in magnitude to the total market capitalization of Societe Generale.

Between the 7th November 2007 and 31st December 2007 Kerviel unfolds completely these positions, taking them down to zero, with a gain of circa 1 billion euro, which sums to the precedent gain of 500 million euros. Kerviel's realized profits of by the end of 2007 reach 1.4 billion euro, of which he declares only 55 million euro in his official profit and loss (P&L). [R24] "At this point, the situation is beyond me and I don't know how to tell the bank about it, this represents unreported cash of 1.4 billion. So I decided not to declare this to the bank and to cover up this amount, I create an offsetting fictitious operation..."

Thomas Mougard, Kerviel's trading assistant, writes him an email sent on 31st December 2007 whose subject is "Valo JK + EUR 1,464,129,513 E". This is exactly the value, to the last euro, of the earnings retraceable to his fraudulent activities of Kerviel in 2007. Given that the only way to be able to calculate this value is to know about all the deals in Kerviel portfolio, the email suggests a possible collusion between him and Kerviel. In spite of this, subsequent police enquiries will clear Mr Mougard of any wrong doing.

2008: The DAX, EUROSTOXX and FTSE Futures Operation

On January 2008 the market continue to descend but Kerviel believes that this to be a temporary situation. So between January 2nd 2008 and 18th January 2008, he constructs a new futures long position on the European equity indices DAX, EUROSTOXX and FTSE100 for 49.3 billion. To understand the enormity of this position, consider that the market capitalization of Societe Generale in 2008 was 34 billion euro.

According to Kerviel, the MTM value of these positions was zero at mid-day of January 18. In the afternoon, these positions start to generate losses. It is precisely in the period between 18, 19, 20 that the bank will put together various pieces of information and discover the facts. A decision was then taken by management to quicky and completely unwind these positions between the 21st and 23rd January. Because of the adverse market conditions, the unwinding results in losses for 6.3 billion.

Putting together the profits of 2007 (+1.5 billion euro) and the losses of 2008 (- 6.3 billion euro) we arrive at the famous figure of - 4.9 billion euro.

4. The Discovery: January 2008

In January 2008, Mr. Kerviel had to find a way to conceal both his new positions and his 2007 profits. "In In particular, in relation to profits, which totaled 1.4 billion euro, Mr. Kerviel used a number of concealment techniques, one of which would lead to the events being discovered. [R25]

Kerviel explains in his book [R26] that at the beginning of 2008 he envisaged a rise on the financial markets. The first he said he was convinced that the financial crisis was starting to recede, since the central banks and the governments were injecting massive liquidity in the economy which was giving confidence back to the markets. He supported this hypothesis on a historical precedent of the financial crisis of 1998. Secondly, he pointed out that the month of January is usually on a rise as a result of the behavior of large investment funds, which to net the balance sheets sell a lot during December. But when the new year arrives their repurchase policy pushes the markets upwards. I was thus expending significant bounce up.

Thursday January 3, 2008

On 3 January 2008, Kerviel changed the internal counterparty (ClickOptions) for eight fictitious forwards with an external counterparty (Baader, small German bank). These forwards were created by Kerviel with the intention of hiding the +1.5 billion euro earnings of 2007. Kerviel expects that choice of a small counterparty such as Baader will allow him to avoid a number of controls. This information will take a few days to arrive to the risk control department due to a technical problem ("transmission failure"). [R27]

Monday January 7, 2008

It is only until January 7, 2008 that the risk control unit received the up-to-date information about the new external counterparty. As a result of this the calculation of the CVaR increases in the daily dashboard position.

Kerviel does not understand why this is the case, since the operation produces a loss of 1,5 billion towards Baader. The operation has a notional of 80 billion and generates a counterparty risk of 3 billion. Contrast this amount with the total counterparty risk for the whole desk which on 31st December was 3.5 billion. He explanation to the risk managers is most cryptically, he says "This materializes the give up of puts made late; I owe money to the counterparty. It will be rebooked as soon as possible."

This data is anyway transmitted to the accounting and regulatory team who needing to close the accounting for year 2007, ad were used to calculate the Cooke ratio, which is a measure of the capital requirements. Subsequently, Mrs. Legaud from this unit will declare that “he was surprised that these transactions created a counterparty risk and I think he wasn’t familiar with counterparty risk issues.” [R28]
The discovery of the events would originate from this flaw.

Wednesday January 9, 2008

On January 9th a compliance officer asks Kerviel to clarify the situation. At this point Kerviel decides to eliminate the eight forwards that have caused the problems. To continue to hide his 1.4 billion gains, he asks his assistant Thomas Mougard to use the "flux pro" concealment technique to insert provisions for that amount. The day after the warnings have disappeared from the system and the middle office agents considers the problem to be resolved.

In the subsequent days the accounting and regulatory and reporting team proceeds to do the calculations for the capital requirements, as required by the regulators. However the calculations are done using the data from the 8th January in which the eight forwards had not been cancelled. Their presence makes the Cooke Weighted Assets and Risk Weighted Assets ratios to jump.

The team in charge interrogates a middle office agent about the size and notional of the eight forwards. This employee explains that these operations have been already cancelled and forwards the email sent by Kerviel. This agent then asks Kerviel directly about the situation. At this point the agent asks about what has replaced these operations, since an operation cannot really disappear but can only be replaced by another operation or cash. Kerviel however remains evasive and simply says that the operation must be treated as an "undue earnings payment".

During the following days, agents from the Finance division, the Accounting and Regulatory reporting, risk management and the back and middle office attempt to reconstruct what happened. The various departments share information and in this way finally a number of inconsistencies, forged emails and false documents come to light.

Kerviel's explanations continue to be incomprehensible and so on the 17th January further meetings are organized between the Finance division, the SGCIB and others.

Kerviel realizes that there are doubts regarding the eight cancelled forwards with Baader as counterparty. The operation has a notional value of 80 billion. But for a small bank such as Baader this operation seems too high, but it would seem possible for counterparty such as JP Morgan or Deustche Bank. Kerviel then decides to cancel the provisions of the flux pro, re-insert the forwards but this time using as counterparty Deutsche Bank. This change in counterparty had the immediate effect of decreasing significantly the Cooke ratio. In order to explain this change, Kerviel says that Baader has been the broker and not the counterparty of the operation.

Friday January 18, 2008

The crisis for the bank started with a phone call on Friday, January 18, when Jean-Pierre Mustier, head of investment banking, was told compliance officers had uncovered problems with a 30 billion euro trade in the bank's equity derivatives division. The trade -- a contract based on future movements in Germany's DAX stock exchange index -- had aroused suspicions because it was far too large for the supposed counterparty, a medium-sized German brokerage called Baader. [R29]

When executives including Martial Rouyere challenged Mr. Kerviel, he claimed to have made a mistake and produced a forged e-mail indicating that the counterparty was instead the much bigger Deutsche Bank. Still suspicious, the officers late on Friday made several fruitless attempts to reach Deutsche Bank in Frankfurt. They then called the bank's offices in New York . The response was chilling: Deutsche Bank did not recognize the trade.

In the words of Rouyere: “I managed to contact Mr. De la Celle (of the Deutsche Bank) by telephone. He told me he had not had any contact with Mr. Kerviel for a number of months and had not conducted transactions with him. These statements contradicted Mr. Kerviel’s explanations and proved that he had lied in his statements up until then.”[R30]

Saturday January 19, 2008

On Saturday 19 January 2008, Kerviel was heading to Normandy for a romantic weekend with his girlfriend to celebrate his birthday (31 years on 11 January 2008). On arriving on a small hotel near Deauville Kerviel received around 11am a phone call from Martial Rouyere. He asked him for the passwords of his computer, because he said he wanted to confirm certain counterparties. He called an hour later and setup a conference call with superiors, who were rather dubious. After lunch, the head of the trading floor Luc Francois called on him mobile phone. He said that the counterparty had not confirmed, so Kerviel have lied. "Yes, to hide the gains". He then asked Kerviel to return immediately to Paris in the next train. Kerviel and his partner arrived towards the evening on Gare Saint Lazare. It was around 6pm when he entered the headquarters of Societe Generale. Royere accompanied him to meet Luc Francois in person and a long interrogation starts. [R31]

Later that day Jean-Pierre Mustier meets Kerviel who is confronted with the answer from Deutsche Bank. Kerviel admits to have done non-authorized operations and to have logged fictitious transactions. Kerviel attempts to convince Mustier that he has discovered a new type of trade to make enormous gains. Kerviel admits to have inserted the flux pro operation in order to hide the 1.5 billion gains from 2007.

Mustier will declare "I kept him in front of me for a long time. But I don't think there was any financial motive. I just think he had no sense of financial reality and had no idea of the scale of what he had done".

Sunday January 20th 2010

Kerviel's interrogation continue and this brings to light the existence of positions for 50 billion euro (30 billion on the Eurostoxx, 18 billion on the DAX and 2 billion on the FTSE). On that date (20th Jan) the net position amounts to a loss of 1.2 billion. Kerviel says that in spite of this the markets will bounce and the position will turn into profit. [R32]

The CEO of the bank Daniel Bouton is informed. He in turn will notify the Audit Committee (“Comité des Comptes”) on 20 January of these positions and his decision to close them as soon as possible. Bouton will also notify the Governor of the Bank of France and the Secretary General of the AMF who supports the idea of a quick unwinding.

In addition, in line with article 233-2 of the AMF general rules the information about the fraudulent positions of the trader will be disclosed only on the morning of the 24th Jan, on the opening of the market and at the same time the shares of SG will be suspended from trading. This is expected to help to solve the crisis.

Subsequently, Gérard Rameix, former general secretary of the AMF, the stock market regulator, will declare that SocGen was obliged to unwind the positions once it had discovered them. It had been allowed to keep the process secret for five days until it was completed because of the "exceptional" circumstances. The sell-off was "perilous", he said, because the speculative positions had been taken when the market was high but had to be unwound when they were falling. [R33]

On that day, Maxime Kahn, a senior trader from Societe Generale is contacted and asked to come to headquarters. On arrival he is told that there is an emergency sell-off operation on behalf of a client that the management would like him to handle starting on the next day. Mr Kahn will later declare: “from the faces I saw, I knew the client was Societe Generale”. He is asked not to trade more than 10% of the market daily volume.

By this time Mr Kerviel is suspended pending dismissal procedures.

Monday January 21 2008

With the greatest discretion, Maxime Kahn, starts the unwinding operation. For this purpose a separate office is arranged for him, outside the normal trading floor. The unwinding is done on dates 21, 22 and 23 Jan.
Mr Khan will later declared that he agreed with the unwinding operation as "It was not possible to wait because the bank was in potential failure… The order of grandeur was such that it would have eaten up all of the bank's equity capital." [R34]

On the Monday 21 January 2008 Daniel Bouton contacted certain investment banks, such as JP Morgan and Morgan Stanley, who agree to participate in a capital increase operation of about 5.5. billion euro.

Tuesday January 22nd 2010

US stock markets reopen after Monday's public holiday and start to fall sharply. The Federal Reserve unexpectedly cuts interest rates by 0.75% to 3.5%, helping stabilize the market.

Wednesday January 23rd 2010

After trading to close Kerviel's position is completed, SocGen calculates its final total loss is 4.9 billion euros.
In this regard, the Banking Commission (“Commission Bancaire”) concluded as follows:

“Operating in a very unfavorable stock market context, […] the rapid liquidation of long positions nevertheless led to a substantial loss: while the latent ‘market-to-market’ result of the fraudulent futures positions initiated by Jérôme Kerviel was EUR -2.7bn, the sell-side transactions the following week caused additional losses of EUR -3.6bn, for a total loss of EUR -6.3bn. In its financial communication, the institution reported a loss of EUR -4.9bn, which corresponds to the sum of the 2008 loss and the profits realized in 2007 (EUR +1.4 bn) on fraudulent futures positions taken by Jérôme Kerviel.” [R35]

On that day, Christian Noyer, Governor of the Bank of France, informs the French government. SocGen's Board of Directors rejects Chairman Daniel Bouton's offer of resignation.

Thursday January 24 2008

At 7am on Thursday 24 January 2008 Societe Generale publishes an online press release to inform the public of the situation.

5. The Aftermath

In the months following the discovery of Kerviel's fraudulent activities, a number of investigations, both internal and external, were conducted in order to establish the facts of the event. These include three internal reports commissioned by SG and an investigation done by the French police through the Paris investigating magistrates.

The Interim Preliminary Report (February 2008)

Following Kerviel incident, the Board of Directors of Societe Generale decided at their meeting of January 30, 2008, to form a Special Committee composed exclusively of three independent directors chaired by Jean-Martin Folz, the former head of Peugeot. The Committee was instructed [R36] to ensure:

(i) that the causes and sizes of the trading loss announced by the bank have been completely identified
(ii) that measures have been, or will be, put in place to prevent the reoccurrence of incidents of the same nature,
(iii) that the information communicated by the bank faithfully reflects the findings of the enquiry
(iv) that the management of the situation is conducted in the best interests of the company, its shareholders, its clients and its employees.

After a month of work, the Committee concluded that bank's huge losses were caused by a rogue trader's efforts to subvert controls and a lack of diligent supervision [R37]. The report also determined that Kerviel began making unauthorized trades as early as 2005 and that the bank's internal controls failed to uncover his activities.These consisted in small amounts in 2005 and 2006, and in larger amounts in March 2007. By January 2008 Kerviel had exposed the bank to 50 billion euro.

The report also stated that Societe Generale missed 75 warning signs on the activities of rogue trader. Jerome Kerviel, an independent report has found, as France's second-largest bank posted a 82 per cent fall in last year's profit. Even though risk control procedures were followed correctly, compliance officers rarely went beyond routine checks and did not inform managers of anomalies, even when large sums were concerned. Nor were follow-up checks made on cancelled or modified transactions. "No inititiative was taken to check JK's assertions and corrections he suggested, even when they lacked plausibility," the report said. "When the hierarchy was alerted, it didn't react." [R38]

Mission Green Report (May 2008)

On January 24 2008, prior to the creation of the Special Committee, the bank's General Inspection department was given the responsibility of performing of an investigation.

After three months' work, "The conclusions of the report show that the trader's maneuvers and skill in concealing his positions, risks, and earnings allowed him to evade detection of his massive directional positions." [R39] The report also blames Kerviel's managers, and a lack of proper company controls, for the breach. "The fraud was facilitated -- or its detection delayed -- by weaknesses in the supervision of the trader and in the controls over market activities". [R40]

The report, furthermore, identified five points of failure [R41]:

First, Kerviel was able to start building his positions because he had no direct supervisor. The old one had resigned and no replacement yet appointed.

Second, once a new manager was appointed, he was inexperienced, and his superiors didn't give him the necessary support to offset that.

Third, Kerviel was allowed to take unauthorized intraday positions, albeit small ones.

Fourth, red flags were repeatedly ignored by higher management at France's second-largest banks. The report reckons there were 39 occasions when Kerviel's actions should have raised suspicion. It also says 1,071 false trades were missed.

Fifth, Kerviel was able to use his previous experience in the middle office to circumnavigate controls. Both the back and middle office lacked the resources and the seniority to hold traders in check, the report found. Their priority was ensuring that trades were properly executed rather than within the rules.

PricewaterhouseCoopers Report (May 2008)

According to the PricewaterhouseCoopers (PwC) report, there was a "mismatch between the resources allocated to support and control functions and the level of front office activities", at a time of rising trading volumes in the equities division. Specifically, Kerviel's immediate supervisor lacked trading experience and "demonstrated an inappropriate degree of tolerance in relation to the taking of intra-day directional positions. [R42]

The report also alluded to a fragmentation of controls between business units and an insufficiently precise division of tasks, which led to Kerviel's actions not being escalated to the appropriate levels of management.
Intriguingly, the bank claimed to have "discovered indications of internal collusion involving a trading assistant, a middle-office operational agent". The assistant made nine provisions of more than 50 million euro in 2007 and 2008, and one provision (on January 10, 2008) of 1.5 billion euro, which the bank claims allowed Kerviel to cover up earnings generated in 2007.

The report also confirms that a series of action have been taken by the bank to improve the risk management controls it currently has. These “Ten Initial Actions” as called by the report include:

1 Control over the nominal, value and cumulative value of transactions: The objective of this control is to monitor significant size transactions and the cumulative nominal value of position.
2 Improvements in monitoring of vacations: The objective of this action is to upgrade the procedure to monitor the minimum number of consecutive vacation days taken by employees.
3 Control over initial margin requirements (IMR) and margin calls for listed futures
4 Control over transactions cancellations and modifications: The objective of this control is to identify and to validate any modifications to, or cancellations of, transactions that have already been recorded.
5 Control over deferred start date transactions: The objective of this control is to ensure that transactions with a deferred start date are genuine and reasonable.
6 Confirmation of internal and intercompany transactions: The objective of this control is to confirm that internal transactions are reconciled and transactions with other group entities are formally confirmed.
7 Regular change of passwords for sensitive applications: The objective of this action is to ensure that passwords for users of the most sensitive applications are changed regularly.
8 Reinforcement of access controls for the most sensitive applications (Biometry).
9 Cancellation of front office "write access" rights for middle office applications
10 Development of an escalation procedure for red flags arising as a result of control procedures and update of distribution lists

Investigating Magistrates Report (August 2009)

Judges Renaud van Ruymbeke et Francoise Desset have conducted a year-long investigation on the incident. Their report was used by state prosecutors to decide whether or not to recommend that Jerome Kerviel should stand trial. The two judges assigned to Kerviel’s case refer the trader to the criminal courts, saying they believe he had “gone beyond his limited authority and taken financial positions outside of the standard market”. [R43] Kerviel is accused of breach of trust, fabricating documents and illegally accessing computers.

6. The Trial

On 8 June 2010 the criminal trial against Jerome Kerviel started on the Palais de Justice in Paris, where justice has been dispensed since mediaeval times. Judge Dominique Pauthe, leading the three-judge panel at the tribunal correctionnel (criminal court). According to the French legal system there is no jury for this type of trial. The first words pronounced by Judge Pauthe were: "Who are you, Jerome Kerviel? Answer the question."[R44]

The offences about which Mr Kerviel was accused are:

(1) Fraudulent introduction of data into an automated processing system

This charge relates to the fictitious entries made by Mr. Kerviel. Mr. Kerviel acknowledged these facts. They were fraudulent, as their sole objective was to conceal his positions and results, and to mislead Société Générale's control departments.

(2) Forgery and use of forgeries

This count was only admitted for the false e-mails fabricated by Mr. Kerviel, which he used during the controls to which he was subjected.

(3) Breach of trust

This count related to the taking of extraday positions, i.e. spanning more than one day, that were both exorbitant and concealed. Mr. Kerviel did not comply with the mandate the bank had assigned of €125 million on the Delta One desk.

Witnesses for the Prosecution

Daniel Bouton

Daniel Bouton said "It's a catastrophe, its not an issue of losses or amounts. The trust that should existed between us is shattered… I cannot believe for one second any of Jerome Kerviel's supervisors were aware (of his bets)". [R45] Bouton further added that Kerviel's unathorised trading as being "outside any remit" and the mark of "an evil genius, but a genius nonetheless". [R46]

Eric Cordelle

Eric Cordelle stated that "Jerome was always able to come up with reasons, convincing explanations. He lied from start to finish and every time he said something, it was believable… I didn't have the resources or the knowledge to do it. I didn't necessarily understand the trader lingo" [R47]. Mr Cordelle further confirmed that the desk's 125 million euro trading limit "was, on this team, fairly frequently exceeded", with up to 200 million traded on some days. [R48] Also, he said that there was no risk-reporting system for traders on the Delta One trading desk when he joined the team in 2007, and implementing regular reporting "was not a priority". One of his priorities included recruiting staff for the very busy desk. "I remember a trader who broke his nose one evening and came to work with a broken nose the next day because he did not have the choice – there was too much work". Cordelle concluded by saying that "I did not see the orders he was placing… To check every one of the operations, you had to suspect fraud… no one talked about fraud."[R49]

Maxime Kahn

Mr Kahn said "It was impossible to wait… There was a potential for the bank to go bankrupt". [R50]

Jean-Pierre Mustier

Jean-Pierre Mustier, the former head of Societe Generale's investment division in which Kerviel worked on the "Delta One" trading desk, told the court "I still don't understand why Jerome Kerviel did it ... and he has never said sorry," he added. "How can he say he did it for the good of Societe Generale, to earn it money? He is lying, like he has always lied." [R51]

Antoine Delorme

Antoine Delorme, former colleague trader of Kerviel, told the court that he thought Kerviel was taking positions that were "completely crazy". [R52]

Martial Rouyere

Rouyere said Kerviel was one of three traders on the Delta One desk he "relied on." He said he'd thought Kerviel could help train Cordelle, who said he had no trading experience when he arrived on the desk in April 2007. "I had faith in Jerome," said Rouyere, who left the bank in August 2008. "He was someone serious, professional."

When the bank began to uncover Kerviel's bets and faked hedges, Rouyere said the team reviewing his transactions didn't immediately understand what he'd done. Before the weekend of Jan. 19, "I had no idea it could be a fraud, a fraud of such magnitude," Rouyere said. "We weren't sensitized to the risk of fraud". [R53]

Witnesses for the Defense

Jerome Kerviel

Kerviel said that he made "errors" and regretted them, but blamed his bosses for encouraging him. "I am conscious of having gone too far", Kerviel said. The former trader has previously admitted building up fake covering positions to give the appearance of balancing out risky one-way bets, but he said this was for appearance sake and must have been known to his superiors. [R54]

Kerviel said that his bosses at SocGen encouraged him to take risky market positions. "The encouragement of my superiors did not slow me down". He said that he worked 7am to 10pm bank holidays included with only a brief break to eat a sandwich at his desk. Lawyers also read a transcript of a conversation between Kerviel and SocGen ex-investment bank chief Jean-Pierre Mustier when the scandal broke, in which Mustier reportedly said "if you won 1.4 billion euros, that means that you are very good. What you did was a pain, but it's not a big deal". [R55]

The treasury reports "to me represented a reflection of my activities". "Every week I made a report and sent it to Eric Cordelle and Martial Rouyere", his supervisors. The treasury worked like a small bank for the traders. Kerviel said He borrowed billions to supplement the 25 million he was allotted, based on his trading desk limit. In summer 2007 he said he borrowed 1.2 billion dollars while he was in a losing position, then, but in July he was ahead again. "None of my supervisors asked questions" he said. They "could see exactly what was in the treasury of each trader". [R56]

Valérie Rolland

On June 14, Valérie Rolland, a Société Générale supervisor who was in charge of monitoring the company's trading practices at the time, explained that her position gave her access to all transactions carried by Mr. Kerviel and his colleagues. Asked how the bank failed to spot Mr. Kerviel's one-way bets of €30 billion in 2007 and €50 billion in January 2008, positions that generated huge cash transfers, she said: "Frankly, I've no idea; I don't know." [R57]

Benoit Tailleau

"Direct superiors could not have been totally ignorant of Jerome Kerviel's activities", said Tailleau who was a trading desk supervisor at SocGen until 2006 and now works as an interior designer. "For me that's a certainty. It is even obvious". Even though Tailleau did not think the bank would have known the precise sums involved, he said it would have been obvious Kerviel had significantly breached the desk's trading limits. "He maybe guilty, but he isn't the only one". [R58]

Professor Jean-Hubert Blanchet

Professor Blanchet, finance professor at the University of Paris II, said that Kerviel never took holidays and worked long hours which represents and industry problem. "This makes the trader structurally more dangerous: the mad trader becomes the zombie trader", Blanchet told the courtroom in the Palais de Justice. [R59]

Professor Catherine Lubochinsky

Professor Lubochinsky, finance professor at the University of Paris II, told the court that Kerviel's trading P&L, which veered between 2.5 billion euros in the red and 1.4 billion euros in the black, should have alerted his superiors. "They are all guilty – both parties" said Lubochinsky referring to Kerviel and SocGen. [R60]

Prosecution and Defense Closing Statements

Prosecutor Jean-Michel Aldebert termed Kerviel a "manipulator" and a "cheater" for having built up unauthorized bets worth 50 billion euros that nearly brought French bank Societe Generale to its knees. Aldebert told the court Kerviel should spend at least four years behind bars while the fifth year could be suspended. [R61]

"Who are you Societe Generale?" was the last question formulated by Olivier Metzner, Kerviel's defense lawyer, during his closing plea during the last day of the trial on Friday June 25th 2010. Metzner has argued that Kerviel was just a pawn in a mind-boggling financial system that pushed him to take risks. Casting Kerviel as a humble "Breton boy" who was corrupted by SocGen, a bank that thrived on risk, Metzner told the court the real mystery was not Kerviel's huge risky bets but the wider financial system. [R62]

The Verdict

The court announced that the verdict of the Kerviel trial was to be known on October 5, 2010 at 10am. [R63]

On that date, Mr Kerviel was found guilty of all three charges – abuse of trust, forgery and computer abuse. Mr Kerviel was sentenced to three years in prison and ordered to pay €4.9bn in damages to Société Général, who welcomed the ruling, saying it acknowledged "the considerable moral and financial prejudice suffered by the bank and its employees." [R64]

ACKNOWLEDGEMENTS

I would like to thank the support of the DIVISIONE RICERCHE “CLAUDIO DEMATTE” within the framework of the case collection SDA Bocconi initiative. The author would also like to thank Prof Gino Gandolfi (University of Parma) and Miss Laura Rubiani (author of the thesis "Il Caso Kerviel: Un’analisi su Internal Controls e Risk Management di Société Générale", University of Parma, 2010) for their valuable comments during the preparation of this work.

REFERENCES

[R1] Martin Arnold, Peter Thal Larsen, Peggy Hollinger, John O’Doherty and Richard Milne, "How Kerviel exposed lax controls at Société Générale", Financial Times, February 7 2008
[R2] Societe Generale Press Release January 24, 2008, http://www.societegenerale.com/sites/default/files/documents/CP_24_jan_2008_gb.pdf
[R3] Heather Smith,Kerviel Seeks to Show at Trial That SocGen Knew of Trading, Bloomberg.com, 8 Jun 2010
[R4] Soane, E; Nicholson, N; Audia, P; The Collapse of Barings (A): The Events, London Business School, Case Study, ECCH: 401-020-1, 2001.
[R5] Kerviel refuses to be 'scapegoat', BBC News, www.bbc.com, 5 Feb 2008
[R6] Jerome Kerviel: "genius" or mediocre backroom boy?, Reporting by Sudip Kar-Gupta; Editing by Andrew Hurst and Michael Winfrey, www.reuters.com, Jan 26, 2008
[R7] SocGen rogue trader was unremarkable, hardworking, Writing by Francois Murphy and James Mackenzie; Additional reporting by Brian Rohan and Benoit Tessier in Paris, Pierre-Henri Allain in Rennes and Jonathan Saul in Dublin; Editing by Charles Dick, www.reuters.com, 26 Jan 2008
[R8] Ex-SocGen boss says trading scandal caused by Kerviel's 'lies', www.france24.com, 22 Jun 2010
[R9] UPDATE 2-Ex-SocGen CEO brands Kerviel an "evil genius", Reporting by Thierry Leveque; Writing by Lionel Laurent; Editing by David Cowell and Will Waterman, www.reuters.com, Jun 22, 2010
[R10] SocGen rogue trader was unremarkable, hardworking, Writing by Francois Murphy and James Mackenzie; Additional reporting by Brian Rohan and Benoit Tessier in Paris, Pierre-Henri Allain in Rennes and Jonathan Saul in Dublin; Editing by Charles Dick, www.reuters.com, 26 Jan 2008
[R11] Angela Doland, ‘Who are you?’ is trial’s big question for rogue trader, The Boston Globe, www.boston.com, 9 Jun 2010
[R12] Martin Arnold, Peter Thal Larsen, Peggy Hollinger, John O’Doherty and Richard Milne, "How Kerviel exposed lax controls at Société Générale", Financial Times, 7 Feb 2008
[R13] Kerviel lawyer blasts SocGen as trial verdict expected October 5, Writing Lionel Laurent and Matthieu Protard, Editing by Mike Nesbit and Erica Billingham, www.reuters.com, 25 Jun 2010
[R14] Société Générale's Fraud: What Now?, Writing Carol Matlack, With reporting by Mark Scott in London and Jennifer Fishbein in Paris, www.businessweek.com, 24 Jan 2008
[R15] J Kerviel, L’engrenage: Mémoires d’un Trader, Flammarion, page 14
[R16] http://www.societegenerale.com/
[R17] Renaud Van Ruymbeke, Francoise Desset, Ordonnance de Renvoi devant le Tribunal Correctionnel et de Non-Lieu Partiel, Cour d’Appel de Paris, Tribunal de Grande Instance de Paris, 31 Aug 2009. Accesed via http://www.la-croix.com/illustrations/Multimedia/Actu/2009/9/2/ordonnance.pdf
[R18] “Jérôme Kerviel: Secrets of the rogue trader”, The Independent, 23 January 2009.
[R19] Renaud Van Ruymbeke, Francoise Desset, Ordonnance de Renvoi devant le Tribunal Correctionnel et de Non-Lieu Partiel, Cour d’Appel de Paris, Tribunal de Grande Instance de Paris, 31 Aug 2009. Accesed via http://www.la-croix.com/illustrations/Multimedia/Actu/2009/9/2/ordonnance.pdf, Page 21
[R20] ibid, page 22
[R21] ibid, page 8
[R22] ibid, page 23

[R23] ibid, page 23
[R24] ibid, page 23
[R25] Summary of the Committal Order, Website: http://www.societegenerale.com/
[R26] Jerome Kerviel: L'engranage: memoires d'un trader, Flammarion, page 28
[R27] Summary of the Committal Order, Website: http://www.societegenerale.com/
[R28] ibid
[R29] The outsider, Martin Arnold, Peggy Hollinger, Richard Milne, John O'Doherty and Peter Thal Larsen, www.ft.com, 8 Feb 2008
[R30] ibid
[R31] Jerome Kerviel: L'engranage: memoires d'un trader, Flammarion, page 43-46
[R32] Summary of the Committal Order, Website: http://www.societegenerale.com/
[R33] ibid
[R34] Scheherazade Daneshkhu, Kerviel trades put SocGen at risk of 'failure', www.ft.com, June 23 2010
[R35] Summary of the Committal Order, Website: http://www.societegenerale.com/
[R36] PricewaterhouseCoopers Report, Page 2, accesed via link in "PWC's analysis of SocGen's action plan", www.efinancialnews.com, 23 May 2008
[R37] Renee Boucher Ferguson, Report Suggests Société Générale Bank Controls Subverted, www.eweek.com, 21 Feb 2008
[R38] Christine Seib, Societe Generale missed 75 warnings on trader Kerviel, Times Online, February 21, 2008
[R39] PricewaterhouseCoopers Report, Page 2, accesed via link in "PWC's analysis of SocGen's action plan", www.efinancialnews.com, 23 May 2008 and Mission Green report, May 20, 2008, accessed via Website: http://www.societegenerale.com/
[R40] Vivek Ahuja, SocGen finds over 1,000 rogue trades in Kerviel probe, www.efinancialnews.com, 23 May 2008.
[R41] Societe Generale Doubly Damned By Kerviel Scandal Reports, www.forbes.com 23 May 2008
[R42] Rob Davies, Reports highlight SG weaknesses, Risk magazine, www.risk.net, 01 Jun 2008
[R43] Renaud Van Ruymbeke, Francoise Desset, Ordonnance de Renvoi devant le Tribunal Correctionnel et de Non-Lieu Partiel, Cour d'Appel de Paris, Tribunal de Grande Instance de Paris, 31 Aug 2009. Accesed via http://www.la-croix.com/illustrations/Multimedia/Actu/2009/9/2/ordonnance.pdf
[R44] Angela Doland, Who is Jerome Kerviel? Court tries to crack case, www.forbes.com, 8 June 2010
[R45] Ex-SocGen CEO: Kerviel bets were 'a catastrophe', Reporting by Thierry Leveque; Writing by Lionel Laurent; Editing by David Cowell, www.reuters.com, 22 June 2010
[R46] Thierry Leveque and Lionel Laurent, UPDATE 2 – Ex-SocGen CEO brands Kerviel an 'evil genius', www.reuters.com, 22 June 2010
[R47] Thierry Leveque, Rogue trader Kerviel fooled me, says ex-boss, www.reuters.com, 21 June 2010
[R48] Scheherazade Daneshkhu, Kerviel team 'frequently' broke limits, www.ft.com, 21 June 2010
[R49] French ex-trader's bosses tell court they knew nothing, www.france24.com, Jun 21, 2010
[R50] Kerviel Could Have Bankrupted SocGen, Trader Says (Update1), www.businessweek.com, 22 June 2010
[R51] Ex-boss brands Kerviel liar at fraud trial, www.france24.com, 10 June 2010
[R52] ibid
[R53] Heather Smith and Carol Matlack, Kerviel, Once 'Relied On,' Now 'Pathetic' to Ex-SocGen Bosses, www.businessweek.com, June 21, 2010
[R54] Thierry Leveque and Lionel Laurent, UPDATE 2 – Ex-SocGen CEO brands Kerviel an 'evil genius', www.reuters.com, 22 June 2010
[R55] Lionel Laurent and Thierry Leveque, Rogue trader Kerviel says ex-bosses encouraged him, www.reuters.comm, 8 Jun 2010
[R56] Heather Smith and Carol Matlack, Kerviel Tells Court SocGen Received Weekly Reports of His Trading Accounts, www.bloomberg.com, 15 Jun 2010
[R57] David Gauthier-Villars, Prosecutors Seek Prison for Ex-SocGen 'Trickster', www.wsj.com, 25 June 2010
[R58] Clement Guillou and Matthieu Protard, SocGen would have known of Kerviel bets – ex manager, www.reuters.comm, 11 Jun 2010
[R59] Kerviel cast as "zombie" trader; Bouton to testify, Writing by Lionel Laurent; editing by Simon Jessop, www.reuters.com, 17 Jun 2010
[R60] ibid

[R61] UPDATE 2-Prosecutor calls for 5-year Kerviel sentence, Reporting by Lionel Laurent; Editing by James Regan and Michael Shields, www.reuters.com, 24 Jun 2010
[R62] Lionel Laurent and Matthieu Protard, Kerviel lawyer blasts SocGen as trial verdict expected October 5, www.reuters.com, Jun 25, 2010
[R63] Kerviel verdict due Oct. 5 - judge, Reporting by Lionel Laurent; Editing by James Regan, www.reuters.com, Jun 25, 2010
[R64] Kerviel found guilty in SocGen scandal, Scheherazade Daneshkhu, wwww.ft.com, Oct 5, 2010