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MEMORANDUM

Event: Interview of Craig Broderick, Chief Risk Officer - Goldman Sachs

Date of Event: June 17, 2010

Team Leader: Robert Hinkley

Location: Goldman Sachs's offices, NY

Participants – Non-Commission: David Viniar

Participants – Commission: Robert Hinkley, Tom Greene, Tom Stanton, Carl McCarden,

Memorandum prepared by: Robert Hinkley

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Summary of the Interview:

This is a paraphrasing of the interview dialogue and is not a transcript and should not be quoted as such.

Tom Greene commenced the interview. In that connection he reviewed for Mr. Broderick the rules of the interview and introduced the FCIC personnel who were present. He then turned the interview over to Robert Hinkley to commence the questioning.

Mr. Broderick is Goldman's Chief Risk Officer. He has been in that role since 2007. After working for four years at Chase Manhattan Bank as a lending officer, he has worked his entire business career at Goldman, spending thirteen years in the GS London office (1986-1999). He returned to the New York office as Chief Credit Officer at that time.

GS's history of risk management goes back to the time when GS was a partnership (and the capital that was at risk was the partners'). When GS gets into a new business it does so slowly and learns the risks that are involved before it goes too far into the business. He used the swaps market as an example where they first only acted as an agent. Later, when they understood the risks better thay started trading as a principal. Only reluctantly take on risk after they know they can manage it.

Senior management group is distinctly experienced in understanding risks. They understand the dynamics of markets generally and build out a risk structure accordingly.

GS has consistently invested in risk management both in terms of people and systems. Nothing is perfect, but GS thinks it has risk management systems that are as good as anyone's.

Overwhelming practice is that when you go up GS's management chain respect for risk gets greater and it is unlikely that if you appeal to someone with higher authority (to override a risk) the initial decision to respect risk will be overruled.

There is a lot of cross pollination between revenue generating function and risk management functions. People cross over between these two groups all the time. It results in increased credibility for both groups. Everyone considers themselves to be responsible for protecting the firm through risk management. Mr Broderick has the specific title of Chief Risk Officer, but everyone helps.

Risk management personnel at GS (including the people carrying out the controller function described in the next sentence) are collectively referred to within GS as "The Federation." "Back office" is not a term that's used at GS. Risk managers are considered a vital part of the company's profit making business not a cost center which makes doing business more difficult.

In total the Federation (which includes legal, compliance, internal audit, controllers, operations, technology and risk management) accounts for about half of GS total personnel. They all report either to the General Counsel's office, Mr. Viniar or the Chief Administrative Officer. The Federation is completely separate and independent from the various business function groups.

The controller function has nearly 5,000 people worldwide. These people have responsibility for the marks which are the foundation for determining GS's daily P&L.

The Risk Group within risk management is divided broadly into those managing credit exposure (about 300 people who are mainly located in London and check customers' credit and set limits), managers of market risk (about 175 people in each of GS's major sales and trading offices around the world) and a small insurance group. We discussed the operations of those measuring and controlling both credit and market risk in some detail.

In that connection, he spent a good deal of time showing by various examples how a customer's credit risk might be assessed and how this would impact on the day to day operation of GS's business. GS has a constant eye on matching its assets and liabilities and how they are funded. This is an increasingly important issue for GS.

The credit group is not in the habit of looking at the underlying credit quality of instruments which come in under their normal trading activities. They will rely for the most part on the instruments rating, but they would take into consideration the instrument's volatility. The majority of trades which come in the salesperson and trader know what their risk management parameters are and what they can do for the client and what they cannot. For unusaly trades this may not be the case, but the company's systems assist in alerting traders to risk management obstacles which have to be cleared before a trade can take place.

Little was discussed concerning the insurance group because it wasn't relevant in terms of the financial crisis.

Mr. Broderick described the evolution of the risk management function at GS. [43 minutes]Before they get into a new business, they do their best to assess the risks involved and put adequate risk management systems in place first. These systems might be quite simple at first. In this case, GS tailors the amount and type of business they allow to proceed until they feel more comfortable that their risk management systems are adequate.

Not everyone at GS is terrific at risk management, but the most successful people at GS are all good at it and they have been promoted partially because of this.

He said they are learning about new risks all the time and constantly trying to improve their systems. His view was that if GS was making or losing money on its positions and didn't don't know why, then there was a risk that they didn't know about and weren't taking into consideration."

[46 minutes] Mr. Broderick took the FCIC's staff through how his risk managers were involved in the mortgage business at GS from the December 2007 meeting (which Mr. Broderick did not participate in). They were relatively long in mortgages generally. This was the result of largely reacting to clients needs. This is relative to the mortgage business historically, but not to all of GS. Part of the reason they were long was because they were relatively comfortable was because prior to that time mortgages had not been very volatile.

The meeting was called because Mr. Viniar became concerned that GS had lost money in this business for 10 straight days. At the meeting they determined that volatility had come into the mortgage market which had not appeared before. As a consequence they decided to flatten GS's amount at risk. Until that time the average "value at risk" ("VaR") for the mortgage department was that with 95% confidence they were certain that the most they would lose on their net mortgage portfolio on any one day was around $12 to $13 million. This did not indicate a huge long position, but they decided to reduce it even further.

He summarized the meetings conclusions as follows: It looks like there is more volatility here than we normally expect. This is a low margin business. We shouldn't be taking too much risk to earn low returns. So let's flatten our risk generally. Let's get down [GS's exposure] across the mortgage business.

This was an irregular meeting, but we had a lot of irregular risk meetings. This one just happened to get the attention of the press and took on a life of its own.

He cautioned they did not tell the mortgage traders to cut back on their market making and they did not say to short the market. They wanted to reduce risk. He didn't recall if there were any reductions to risk limits imposed at or around the time of the meeting.

On the credit risk side, over the next several months they did take steps to reduce exposure to and weed out some of their mortgage originators.

[56 minutes] The risk management really had no idea how the sustained mortgage issue was going to be or how far it was going to deteriorate. GS did not understand what products or counterparties would be impacted either. Starting in January 2007, they watched the market deteriorate first in subprime and then in lower credit quality tranches of structured products.

Mr. Broderick said the first trip wire that triggered GS interest in there might be something wrong in the mortgage business were recurring daily the losses. GS's daily profit and loss ("P&L") statement is a wonderful risk management tool. Marking all assets and liabilities to market every day allows GS to produce a *meaningful* daily P&L and if they were losing money consistently something was wrong. Volatility was the second thing that tipped GS off to the potential problem.

GS eagerly without hesitation use all sources of input into our risk management information and decision making, including rating agencies, reports from pundits, etc. . They try to get as much data as possible to help decide risk management issues (get the facts and range of possibilities). There was an increase in the amount of noise about the subprime market in the press. Goldman's own research was not positive but not dispositive. There were plenty of people at GS saying yes the market was down, but this represented a buying opportunity.

[63 minutes] Mr. Broderick recalls pretty specifically that GS senses were heightened, we were at greater alert, but had not fundamental understanding how this would deteriorate further in subprime and extend to Alt-A, prime and commercial real estate. Not to say they were oblivious. We very quickly turned our attention to what could go wrong next. Subprime mortgage originators were already out of business, but we turned to what contagion could be if the situation continued. Risk management strategy was to continue to reduce risk wherever it manifested itself.

Not as successful in reducing risks in leveraged loans. By December 2007 GS still had a lot of this risk.

[68 minutes] Mr. Broderick stated that there was some question about whether GS thought they were long or short in mortgages over the 2007 period. The signals were relatively more mixed than the press would indicate.

Mr. Broderick says he couldn't recall whether GS came to any conclusions that the ratings on structured products were over optimistic. In retrospect they clearly were. The Credit Risk group was not responsible for reviewing rating agencies work. GS did try to avoid holding left over tranches of unsold deals.

Mr. Broderick said the actual sequence of events took place in a short period of time between when we realized the subprime market was in dire straits and the time when everything just closed down. So there wasn't a lot of time to consider the how we should rethink the market.

Subprime originators were done in early 2007 and we already in risk reduction mode.

[76 minutes] Mr. Broderick said that GS did not have perfect visibility as to what was going to happen, but to be effective risk managers you don't have to have perfect visibility. As long as you don't have excessive risk, you can survive downturns that you didn't anticipate.

To avoid excessive risk you have to understand the full components of the risks you take. He said "Don't kid yourself about having laid off $100 million of risk on a portfolio if you have kept $2 million of the first loss risk portion of it."He said the industry (presumably ex-GS) was not really good about recognizing all the risks it was carrying, particularly when various structures hid that risk. He specifically mentioned the use of SIVs by other banks which Goldman did not employ. These structures may have worked to for accounting purposes, but did not really get rid of risk.

When they decided to reduce risks in December 2007, the trading desk was responsible for implementing it. GS has received a lot of criticism because the overall reduction of risk involved going long and short at the same time. He pointed out that they were pretty close to home because some of their metrics showed them being short during the year while at the same time other metrics showed them being long.

GS views themselves as being in the moving business rather than the storage business. We don't leave stuff untraded. GS has systems to ensure it turns over its inventory.

When trading desk bids for a book of mortgages they have to take the risk protocols into consideration. GS did not take any shortcuts in order to buy new product. Some firms that did were kidding themselves and losing sight of their true risk positions.

[84 minutes] GS never had complaints from traders that GS protocols kept them from successfully bidding for book of mortgage securities that were being auctioned. Mr. Broderick stated that would have been totally foreign to the risk management culture that prevails at GS.

With regard to an August 2007 email from Robert Berry, Mr Broderick said at that time there was some confusion about whether they were actually short or long. The VaR model said short, but the Credit Widening Scenario method said they were long. He said the email was a great email because it shows how hard it is to sometimes figure out if you are long or short.

GS had lots of different kinds of instruments and cash positions. At the end of the day the determinant of the question (whether GS was long or short) has a lot to do with nuances and unpredictability of the market. Mr. Berry was saying depending what happens in the market you could be long when you think you're short and vice a versa. A certain amount of this issue has to do with being close to zero. Mr. Broderick reiterated that you don't have to have perfect visibility you have to have an awareness of what you know and what you don't know and take that into consideration.

[92 minutes] It's clear derivatives played a role in the financial crisis.

When asked what caused the financial crisis, Mr. Broderick replied (i) poor lending standards across multiple areas; (ii) aggravated by increased leverage arising from derivatives and securitization; (iii) some lack of transparency and (iv) the use by some (not GS) of off balance sheet treatment which hid true risk positions.

Mr. Broderick didn't think that by any measure derivatives was a majority contributor to the financial crisis. Look at the losses and try to get a sense of the percentage which were derivatives related. He stated, if we being honest, you have to focus on the macro policies which gave rise to the reduction of lending standards.

Derivatives did create leverage and reduce transparency.

He said lack of transparency in derivatives did lead to risk management issues. He said he thought at some financial intermediaries the traders were aware there was additional risk to what they were doing, but a good way of putting it was that they were able to ignore such risks because their controllers/risk managers were not aware.

Mr. Broderick said he felt that, at the end of the day, derivatives trading was the "cherry on the tip of this hellish sundae rather than the ice cream or whipped cream"

[100 minutes] Tom Stanton questioned Mr. Broderick about the circumstances of the BP privatization which Goldman was involved in when he was in London in 1987 (during another financial crisis). Mr. Broderick said that GS concluded the right thing to do was complete the underwriting for the British government (which they did).

In 1994 Goldman had trading losses vastly in excess of what they expected and this was the birth of the risk management culture that is at GS today. Partners decided to have to put in place first class risk management systems. GS hired some really well known professionals in this area to help GS build a risk management infrastructure.

Mr. Broderick said GS risk management was not perfect, but there are some specific references He said if you are designing a risk management system you have to go back to basics. Marks have to be independently arrived at. He said it was terrible to read how some of competitors had risk management systems in place, but, as a matter of governance did not implement them well.

[110 minutes]Mr. Broderick quoted a Jerry Corrigan as saying good risk management is all about getting the right information to the right people at the right time. He said you can't base your marks on a hold to maturity model. They must be based on where you can trade right now. Its necessity is so obvious, but for some it is difficult. He drew a distinction with Citibank which he said was a serial acquirer of businesses. This necessitated they always had to bring its risk management culture to newly acquired subsidiaries. He said when you are a serial acquirer you can always be behind the curve in terms of getting the personnel and systems at the new subsidiary up to speed.

Mr. Broderick commented that mark to market is so important because if a bank is not pricing its positions properly then it is setting itself up to be the dummy in the market.

Everyone at GS takes first hand responsibility for reputation risk.

GS has meetings on risk management on a very regular basis. Most are just part of an ongoing series of dialog about developing issues. The December meeting on mortgages was the first of many meetings on mortgages that followed. In the end, they just marked the portfolio further down and sold it. Subsequently, the market rebounded and we could have second guess ourselves that we should have held the positions longer, but that's not our philosophy.

[116 minutes] GS has had similar meeting in leveraged financed, municipal finance and others in other areas.

[120 minutes] Mr. Broderick described the process for setting ICR's regarding customer's creditworthiness. GS does its own due diligence based on a number of factors. They set the ICR which is a rating which then ties into the amount of credit risk they are willing to take and how they are willing to take it. Risk management does not share the ICR with other parts of GS due to confidentiality considerations.

In assessing a client's creditworthiness, GS has no real way of knowing the client's current position is with regard to derivatives. Sometimes clients will tell GS. Lots of times they won't.

When the CDSs with AIG were put on (2004 and 2005) GS had no idea of what AIG's overall positions were. With regard to AIG, GS's internal ratings (ICRs) tracked the rating agencies ratings pretty closely.

AIG had higher trigger arrangements regarding collateral calls. This resulted in higher exposure. GS was uncomfortable with the total amount of risk to AIG not because of AIG just because it was so big. Back in 2005, GS made the decision to offset its net exposure to AIG below the trigger. Ultimately, this proved wise, but originally it seemed like GS's caution was costing it money needlessly.

Mr. Broderick stated that there were other entities that GS hedged similar risk for, but didn't get to specifics.

Mr. Broderick stated that GS carried about $70 billion of exposure for derivatives on its books. Its largest exposures are not the big commercial banks in NY because they zero out their exposure with those banks every night.

He said GS doesn't like to run out of credit capacity with a customer. If they are up against their limits, then that keeps them from being able to offer help when the client needs it. That's a reason for GS to hedge some exposure in order to maintain a cushion

During the course of 2007, we thought we were getting to a position where we were shorter than we would have liked. We said told the traders "flat means flat" and get back closer to home (don't go short).