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A personal view of the crisis

Confessions of a risk manager

Aug 7th 2008
From The Economist print edition

Why did banks become so overexposed in the run-up to the credit crunch? A risk manager at a large global bank—someone whose job it was to make sure that the firm did not take unnecessary risks—explains in his own words

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IN JANUARY 2007 the world looked almost riskless. At the beginning of that year I gathered my team for an off-site meeting to identify our top five risks for the coming 12 months. We were paid to think about the downsides but it was hard to see where the problems would come from. Four years of falling credit spreads, low interest rates, virtually no defaults in our loan portfolio and historically low volatility levels: it was the most benign risk environment we had seen in 20 years.

As risk managers we were responsible for approving credit requests and transactions submitted to us by the bankers and traders in the front-line. We also monitored and reported the level of risk across the bank's portfolio and set limits for overall credit and market-risk positions.

The possibility that liquidity could suddenly dry up was always a topic high on our list but we could only see more liquidity coming into the market—not going out of it. Institutional investors, hedge funds, private-equity firms and sovereign-wealth funds were all looking to invest in assets. This was why credit spreads were narrowing, especially in emerging markets, and debt-to-earnings ratios on private-equity financings were increasing. "Where is the liquidity crisis supposed to come from?" somebody asked in the meeting. No one could give a good answer.

Looking back on it now we should of course have paid more attention to the first signs of trouble. No crisis comes completely out of the blue; there are always clues and advance warnings if you can only interpret them correctly. It was the hiccup in the structured-credit market in May 2005 which gave the strongest indication of what was to come. In that month bonds of General Motors were marked down by the rating agencies from investment grade to non-investment grade, or "junk". Because the American carmaker's bonds were widely held in structured-credit portfolios, the downgrades caused a big dislocation in the market.

Like most banks we owned a portfolio of different tranches of collateralised-debt obligations (CDOs), which are packages of asset-backed securities. Our business and risk strategy was to buy pools of assets, mainly bonds; warehouse them on our own balance-sheet and structure them into CDOs; and finally distribute them to end investors. We were most eager to sell the non-investment-grade tranches, and our risk approvals were conditional on reducing these to zero. We would allow positions of the top-rated AAA and super-senior (even better than AAA) tranches to be held on our own balance-sheet as the default risk was deemed to be well protected by all the lower tranches, which would have to absorb any prior losses.

In May 2005 we held AAA tranches, expecting them to rise in value, and sold non-investment-grade tranches, expecting them to go down. From a risk-management point of view, this was perfect: have a long position in the low-risk asset, and a short one in the higher-risk one. But the reverse happened of what we had expected: AAA tranches went down in price and non-investment-grade tranches went up, resulting in losses as we marked the positions to market.

This was entirely counter-intuitive. Explanations of why this had happened were confusing and focused on complicated cross-correlations between tranches. In essence it turned out that there had been a short squeeze in non-investment-grade tranches, driving their prices up, and a general selling of all more senior structured tranches, even the very best AAA ones.

That mini-liquidity crisis was to be replayed on a very big scale in the summer of 2007. But we had failed to draw the correct conclusions. As risk managers we should have insisted that all structured tranches, not just the non-investment-grade ones, be sold. But we did not believe that prices on AAA assets could fall by more than about 1% in price. A 20% drop on assets with virtually no default risk seemed inconceivable—though this did eventually occur. Liquidity risk was in effect not priced well enough; the market always allowed for it, but at only very small margins prior to the credit crisis.

So how did we get ourselves into a situation where we built up such large trading positions? There were a number of factors. As is often the case, it happened so gradually that it was barely perceptible.

Fighting the last war

The focus of our risk management was on the loan portfolio and classic market risk. Loans were illiquid and accounted for on an accrual basis in the "banking book" rather than on a mark-to-market basis in the "trading book". Rigorous credit analysis to ensure minimum loan-loss provisions was important. Loan risks and classic market risks were generally well understood and regularly reviewed. Equities, government bonds and foreign exchange, and their derivatives, were well managed in the trading book and monitored on a daily basis.

The gap in our risk management only opened up gradually over the years with the growth of traded credit products such as CDO tranches and other asset-backed securities. These sat uncomfortably between market and credit risk. The market-risk department never really took ownership of them, believing them to be primarily credit-risk instruments, and the credit-risk department thought of them as market risk as they sat in the trading book.

The explosive growth and profitability of the structured-credit market made this an ever greater problem. Our risk-management response was half-hearted. We set portfolio limits on each rating category but otherwise left the trading desks to their own devices. We made two assumptions which would cost us dearly. First, we thought that all mark-to-market positions in the trading book would receive immediate attention when losses occurred, because their profits and losses were published daily. Second, we assumed that, if the market ran into difficulties, we could easily adjust and liquidate our positions, especially on securities rated AAA and AA. Our focus was always on the non-investment-grade part of the portfolio, especially the emerging-markets paper. The previous crises in Russia and Latin America had left a deeply ingrained fear of sudden liquidity shocks and widening credit spreads. Ironically, of course, in the credit crunch the emerging-market bonds have outperformed the Western credit assets.

We also trusted the rating agencies. It is hard to imagine now but the reputation of outside bond ratings was so high that if the risk department had ever assigned a lower rating, our judgment would have been immediately questioned. It was assumed that the rating agencies simply knew best.

We were thus comfortable with investment-grade assets and were struggling with the huge volume of business. We were too slow to sell these better-rated assets. We needed little capital to support them; there was no liquidity charge, very little default risk and a small positive margin, or "carry", between holding the assets and their financing in the liquid interbank and repo markets. Gradually the structures became more complicated. Since they were held in the trading book, many avoided the rigorous credit process applied to the banking-book assets which might have identified some of the weaknesses.

The pressure on the risk department to keep up and approve transactions was immense. Psychology played a big part. The risk department had a separate reporting line to the board to preserve its independence. This had been reinforced by the regulators who believed it was essential for objective risk analysis and assessment. However, this separation hurt our relationship with the bankers and traders we were supposed to monitor.

Spoilsports

In their eyes, we were not earning money for the bank. Worse, we had the power to say no and therefore prevent business from being done. Traders saw us as obstructive and a hindrance to their ability to earn higher bonuses. They did not take kindly to this. Sometimes the relationship between the risk department and the business lines ended in arguments. I often had calls from my own risk managers forewarning me that a senior trader was about to call me to complain about a declined transaction. Most of the time the business line would simply not take no for an answer, especially if the profits were big enough. We, of course, were suspicious, because bigger margins usually meant higher risk. Criticisms that we were being “non-commercial”, “unconstructive” and “obstinate” were not uncommon. It has to be said that the risk department did not always help its cause. Our risk managers, although they had strong analytical skills, were not necessarily good communicators and salesmen. Tactfully explaining why we said no was not our forte. Traders were often exasperated as much by how they were told as by what they were told.

At the root of it all, however, was—and still is—a deeply ingrained flaw in the decision-making process. In contrast to the law, where two sides make an equal-and-opposite argument that is fairly judged, in banks there is always a bias towards one side of the argument. The business line was more focused on getting a transaction approved than on identifying the risks in what it was proposing. The risk factors were a small part of the presentation and always “mitigated”. This made it hard to discourage transactions. If a risk manager said no, he was immediately on a collision course with the business line. The risk thinking therefore leaned towards giving the benefit of the doubt to the risk-takers.

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Collective common sense suffered as a result. Often in meetings, our gut reactions as risk managers were negative. But it was difficult to come up with hard-and-fast arguments for why you should decline a transaction, especially when you were sitting opposite a team that had worked for weeks on a proposal, which you had received an hour before the meeting started. In the end, with pressure for earnings and a calm market environment, we reluctantly agreed to marginal transactions.

Over time we accumulated a balance-sheet of traded assets which allowed for very little margin of error. We owned a large portfolio of “very low-risk” assets which turned out to be high-risk. A small price movement on billions of dollars’ worth of securities would translate into large mark-to-market losses. We thought that we had focused correctly on the non-investment-grade paper, of which we held little. We had not paid enough attention to the ever-growing mountain of highly rated but potentially illiquid assets. We had not fully appreciated that 20% of a very large number can inflict far greater losses than 80% of a small number.

Goals and goalkeepers

What have we, both as risk managers and as an industry, to learn from this crisis? A number of thoughts come to mind. One lesson is to go back to basics, to analyse your balance-sheet positions by type, size and complexity both before and after you have hedged them. Do not assume that ratings are always correct and if they are, remember that they can change quickly.

Another lesson is to account properly for liquidity risk in two ways. One is to increase internal and external capital charges for trading-book positions. These are too low relative to banking-book positions and need to be recalibrated. The other is to bring back liquidity reserves. This has received little attention in the industry so far. Over time fair-value accounting practices have disallowed liquidity reserves, as they were deemed to allow for smoothing of earnings. However, in an environment in which an ever-increasing part of the balance-sheet is taken up by trading assets, it would be more sensible to allow liquidity reserves whose size is set in scale to the complexity of the underlying asset. That would be better than questioning the whole principle of mark-to-market accounting, as some banks are doing.

Last but not least, change the perception and standing of risk departments by giving them more prominence. The best way would be to encourage more traders to become risk managers. Unfortunately the trend has been in reverse; good risk managers end up in the front-line and good traders and bankers, once in the front-line, very rarely go the other way. Risk managers need to be perceived like good goalkeepers: always in the game and occasionally absolutely at the heart of it, like in a penalty shoot-out.

This is hard to achieve because the job we do has the risk profile of a short option position with unlimited downside and limited upside. This is the one position that every good risk manager knows he must avoid at all costs. A wise firm will need to bear this in mind when it tries to persuade its best staff to take on such a crucial task.