

# FINANCIAL NEWS

## How the world's largest default was unravelled

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Roger Liddell, chief executive of LCH.Clearnet, looked remarkably perky for a man who had just managed the biggest and most complex default in clearing house history. Just two years ago he stepped away from a banking career at Goldman Sachs to join LCH.Clearnet – giving up the glamour of the former investment bank to take up his position as head of the dusty utility, then presumed by some in the industry to be something of a poisoned chalice.

But at 09:15 London time on Monday, September 15, he found a multi-trillion dollar trading book in his in-tray containing huge futures and options, swap, repo, equity and bond positions. Clearing houses are in the business of avoiding risk – from that point onward, Liddell's team would be managing it.

The collapse during the previous night of Lehman Brothers had thrown the financial world into a storm the likes of which it had never seen and which, four weeks later, has yet to abate. Lehman touched every part of LCH.Clearnet's business – it was in the eye of the hurricane.

Since then, neither Liddell nor many LCH.Clearnet staff have seen the light of day, several of them putting in 17-hour shifts and subsisting on takeaway pizzas.

That Monday morning, outside the company's headquarters the pavement was being dug up. Inside, construction work was taking place, causing a flood and two power outages. On the computer screens, the markets were gyrating wildly and the negative newsflow on the strength of some of LCH.Clearnet's large clearing members was unrelenting.

Amid this chaos, order emerged. In conjunction with members, exchanges, dealers and clearing firms, LCH.Clearnet has since successfully hedged out, wound down, transferred or auctioned off the risk pool. As of the end of last week

there was virtually nothing left of Lehman's legacy. If evidence were needed of the value of clearing, LCH.Clearnet has provided it in successfully managing the largest clean-up in clearing house history. But the process was a fraught one.

It had started the weekend before the unfolding of Monday's events. Because of Lehman-related worries, extra staff were called in to work on the Saturday and Sunday prior to Lehman's collapse, but as it happened a good many of the clearer's staff were scheduled to work, since the transfer of positions to the European arm of the IntercontinentalExchange had been scheduled to complete that weekend.

Contingency plans for this process had been put in place well before Lehman's problems began to escalate. It had been agreed that up until 18:00 on Sunday, systems would be restored to where they were on the Friday night – but from that point the positions would remain with LCH.Clearnet, while ICE's engines would run the clearing process.

Calls had been scheduled throughout the weekend to manage the transfer process and, each time, Lehman became an agenda item. But it was not until 18.30 on the Sunday, that the Financial Services Authority, ICE and LCH.Clearnet jointly agreed to "roll back".

Liddell said: "This decision was not based on anything specific. The transfer had worked well that far, it just seemed appropriate to remove any unnecessary strains from the system, even though we didn't know Lehman's eventual position at that point."

Staff, including Liddell, left LCH.Clearnet's offices about midnight, to return early the next morning. Chris Jones, head of LCH.Clearnet's 34-strong risk group, was back at his desk by 05:30 on the Monday. He spent the first few hours monitoring the newswires and taking in developments in Asia, as well as talking to offi-

cial from the Financial Services Authority, in preparation for what might lie ahead.

Jones and his group had spent a good portion of the weekend examining Lehman's positions and working out how they would macro-hedge the portfolio, were the worst to occur. The previous week they had also double-checked contact numbers, ensuring they had details for everyone from Lehman's futures head, traders and back office staff, to the officials at the Payment Protection System bank used by the US investment house.

"This is the sort of stuff that kills you – if you don't have that information you can't start any of the other processes," said Jones, who has been at the clearing house since 1993, and who has worked through two other defaults, Barings and Griffin Trading, as well as three near-misses, Enron Metals, Yamaichi International and Refco.

At 07:30 the London Stock Exchange suspended Lehman Brothers from trading, and it was clear action would need to be taken. But there were confusing messages. Lehman had met margin calls at Clearnet SA, LCH.Clearnet's Paris arm, at 07:00 central European Time. Would it be able to do so in London? It rapidly became clear that Lehman would be unlikely to meet its obligations and LCH.Clearnet acted accordingly.

At 09:15 LCH.Clearnet declared Lehman Brothers International Europe and Lehman Brothers Special Financing Inc in default. Access to trading for Lehman and its customers was immediately cut off and its payment systems shut down. The six SwapClear traders who were on duty were called into LCH.Clearnet's back-up facilities and by 09:40 had begun hedging the \$9 trillion (€6.6 trillion) swap portfolio.

In declaring Lehman in default, the clearing house had assumed all the bank's risk – including its client positions. It therefore needed to find a means of managing the risk swiftly. Part of Jones'

team guided the swaps traders who started on their hedging programme, while others tried to get in touch with the appointed administrators, PwC, as well as with Lehman's traders.

Daniel Gisler, managing director, risk and operations, took a team to Lehman's Canary Wharf offices to collect client records, while the sales and relationship staff remained at LCH.Clearnet offices answering calls from members.

At this point, trouble escalated. Normally the risk managers would expect to look at the portfolios of futures positions market by market, isolating the client positions ready for transfer to a new clearing member, and hedging the house positions before preparing to liquidate them. There was, however, a problem.

Jones said: "We had noticed from some information relating to positions on the London Metal Exchange that at least some client positions were mingled with Lehman's house risk. This meant we could only hedge out the directional risk and had to take a step back to access the books and records to see what was what."

Unable to contact the Lehman traders who were not answering calls, and unable to gain access to Lehman's offices, LCH.Clearnet had no way of establishing which positions were which. Liddell pressed for, and eventually secured, a meeting with PwC early on the Monday afternoon and was able to explain to the auditors what he needed to do and what assistance was required.

Things seemed to be looking up, but what LCH.Clearnet actually gained access to on Monday night was reams of coded print-outs when what it really needed was digital records that it could use, as well as the information necessary to decode the data. Instead, the computer ports in Lehman offices had been blocked.

Liddell said: "We knew what we needed and we knew where it was, but we couldn't actually get our hands on it. Not being able to nail the data down and move on was hugely frustrating, especially with the markets moving so wildly."

LCH.Clearnet staff worked late into Monday night in the hope that the required information would be forthcoming and they could start transferring client positions.

By Tuesday afternoon, Mark Huglin, LCH.Clearnet's head of listed derivatives, managed to get a view on the data from New York, thanks to a call he had put through to the Lehman broker dealer still operating under Chapter 11. Together with the bank's back office staff in London, Jones' team was able to start identifying the customer positions, confirming earlier suspicions of the extent to which these had been mingled with Lehman's own.

Jones said: "We had lost about 36 hours, but on the Wednesday we started to make real inroads, transferring customer positions across to new clearing members. By this stage, the swaps team had also reduced the VaR significantly – and we were just beginning to breathe."

The reallocation of customer positions is more complex than it might seem at first glance. All positions for transfer requests have to be approved by the risk group, since the collateral cover held by the clearing house is calculated on a net basis. The group therefore had to assess the impact of each portfolio's movement on the residual risk portfolio and in some cases had to schedule multiple movements to ensure that the net position remained covered.

Throughout the process LCH.Clearnet's diversified spread of business was a help to the clearing house. The margin headroom could be actively managed across the various asset classes, giving comfort from a risk management perspective, and enabling LCH.Clearnet to hold on to the portfolios and take the time required to transfer out client positions.

Liddell said: "Without this degree of diversification it is doubtful whether we would have had the time to identify and transfer the client positions. Instead we would have had no option but to close out all the positions in the house account, leaving many clients unhedged."

While this work continued, others in the risk group began to package Lehman's house positions into portfolios prior to sending them out to clearing members ahead of an auction process scheduled for Thursday. The clearing firms, most of which are banks, were required to sign non-disclosure agreements before they could be sent the portfolio details. They then had just a few hours to assess the portfolios before deciding which suited their book and which they wished to bid on. When the auction process was completed, the winning dealers would be notified and would assume the positions with immediate effect.

Liddell said: "We decided to go straight into that process as soon as we could rather than put on more complicated hedges. The alternative was to go into the markets and start liquidating the positions ourselves, or to pay a dealer to wind down the book on an agency basis for us. These were valid alternatives, but we believed the auction process would be the lowest-impact solution – not least because we knew there was quite a lot of interest from firms."

LCH.Clearnet ran the Liffe equity product auction first, followed by ICE's energy book and finally the LME book. Jones said: "As the auction process began, we had more headroom and were able to reallocate the notional collateral cover to other markets. We had collateral cover throughout, but things eased considerably once the auctions had begun and by the end of the week we had very little risk."

At the same time open cash equity positions were settled through a buy-in process and Jones' risk group closed out the repo positions held in RepoClear. The hedged swap portfolios were then auctioned – a process that was completed by the swaps traders, on schedule 14 days later.

The entire Lehman clean-up process will become required study material for all clearing

houses worldwide, but the swaps clean-up will attract the most attention. The \$133 trillion portfolio of interest-rate swap risk in SwapClear has built rapidly since it was established in 2005 as a form of joint-venture between the OTCDerivNet consortium of dealers and LCH.Clearnet.

Qualifying dealers can novate bilaterally negotiated swaps trades to the clearing house, considerably reducing their counterparty credit risk exposure, gaining balance sheet efficiencies and substantial capital charge reductions. On joining the group, dealers have to commit to participate in any default management process, to allocate staff to the hedging and auctioning process, and to take on defaulting members' risk. Although routinely rehearsed, the default management process had never been tested.

Jones said: "We were very happy with the way the swaps side worked – and what was comforting was the commitment we had from member firms, not only from the traders that came into work with us, but also from desk heads who would eventually get their calls seeking to put on the hedges and run the auction process."

Frits Vogels, head of interest rates at inter-dealer-broker Icap added: "The entire marketplace is pleased with the way this has worked – it is a great success story in a time of unprecedented turmoil. The swaps market has had the least amount of headaches and has continued to function extremely well throughout."

Although several individuals have been privately critical of the administrators, as well as of the FSA, for not having taken a more authoritative stance toward them, there has been an almost total absence of criticism for LCH.Clearnet. Not only did it not have to tap the default fund, it never even came close to using up the initial margin that had been collected on the Friday morning prior to Lehman's demise.

Plaudits for the clearinghouse have come in from all over. Nick Carew Hunt, market secretary of Liffe, said: "We have absolutely no criticisms – the battles they had in getting the information were substantial and while they could just have closed everything out on the spot, they took full consideration of the whole picture and did the best thing for the market. What is more, they managed the process over what had to be a protracted period of time, but remained within the margin cover."

The highest praise came from Anthony Belchambers, head of the Futures and Options Association. Cognisant of the need to draw lessons from the events, he has put together a list of to-dos for the industry. LCH.Clearnet, notably, is not an item on this agenda.

He said: "As you might expect, unravelling the largest default in financial history has thrown up a few issues, but the feeling from member firms is that LCH.Clearnet did a very good job in difficult conditions and under a lot of pressure. LCH.Clearnet has been subject to a lot of criticism in the past, but they have come back in spades."

**For more information contact LCH.Clearnet at [www.lchclearnet.com](http://www.lchclearnet.com)**