Japanese CDS records busiest trading year

Trading volumes in the Japanese credit derivatives market rose sharply in 2007, according to figures from Deutsche Securities in Tokyo. The number of Japanese single name default swap trades in the six months to November was 71% higher than the previous period, while trading volumes were up 82%, according to figures from the bank. Volumes were 93% higher than 2006 figures, without accounting for the last few weeks of trading before year-end.

Hedging of bank loan books accounted for some of the uptick. Even before the sub-prime crisis, Japanese banks were expanding their hedging of loan portfolios.

“We had a huge gain in trading volume from around March, when the major Japanese banks started buying protection to reduce regulatory risks under Basel II,” says Takashi Yamaji, a manager at Mizuho Securities.

Not surprisingly, general market trading volumes surged from the summer onwards, particularly for consumer finance and bank names. Volumes peaked in August at twice the two year monthly average, according to Jekai Kouchi, chief trader for credit products at Mitsubishi UFJ.

“Japanese bank capital and credit default swap spreads have widened along with global comparables and because the domestic banks have significant refinancing needs,” says Aaron MacDougall, head of credit trading at Deutsche Securities, the investment banking arm of Deutsche Bank in Tokyo. “The volatility has driven two-way volume coming from hedging activity as well risk taking.”

Cross-border M&A activity, such as Japan Tobacco’s takeover of UK cigarette manufacturer Gallaher, also boosted activity in a market that is typically much less eventful.

Index trading accounts for around one-third of overall credit derivatives activity in Japan. The most active name-specific strategies have included trading bank default swaps against bank bonds.

Quants get jumpy with release of bottom-up credit model

Two academics will shortly publish a paper outlining a new credit portfolio model that could mark a significant advance in arbitrage-free pricing for synthetic CDOs.

Rüdiger Kiesel, based at Ulm University and the London School of Economics, and Matthias Scherer, based at TU Munich, have conjured up a mathematical model that copes with the tendency of credit risk to jump up and down over time, rather than proceeding on the gradual Brownian-motion path that most models currently presume.

They are not the first to try to incorporate jumps into credit modelling. Indeed, the dynamic nature of credit risk has become one of the hottest topics in credit quant work.

However, their forthcoming paper “Dynamic credit portfolio modelling in structural models with jumps” describes a jump diffusion model which they say calibrates much more closely to real prices, such as index tranches, than other recent attempts to do the same thing.

Unlike almost all models used currently in the industry, the Kiesel Scherer model is a structural rather than a reduced form model. In other words, it takes the bottom-up approach of modelling individual credits, before meshing them together, rather than a top-down approach using a copula to crunch together individual default probabilities.

Models that take the structural approach tend to be slow because of the number crunching required, but Kiesel says that the algorithm at the heart of this new version is much faster than in other models.

“This algorithm calculates analytically and simulates as little as is necessary,” he says.

A number of large investment banks are thought to be moving in the direction of using structural models that can be run relatively quickly because they only tweak a few parameters at a time.

However, even the fastest structural models are many times slower than a standard copula approach.

Pricing analytics provider CD02 has been working to implement the new model with clients over recent months.

“We wanted to find a dynamic model that tells you something about what happens to spreads over time,” says the firm’s chief executive Gary Kendall.

“That is crucially important for products such as credit CPPI or synthetic CDOs with optionality. This is also interesting because it is the first model that tries to model across all the different tranches and maturities at the same time.”

CDO Software wins first client

CDO Software, a firm that provides management tools for CDO investors and managers, has confirmed that it has its first client on board.

Stamford-based Aladdin Capital is using the firm’s product for its synthetic CDO portfolios as well as for its newly launched credit derivative products company, triple rated Aladdin Financial Products.

Sunay Shah, co-founder of the firm, says that Aladdin is typical of the specialist synthetic clients that CDO Software prefers to do business with.

“It is our strategy to work with leading CDO managers and investors,” he says. “Aladdin has helped us to enhance our product offering so that we can provide key functionality for managing synthetic CDO deals.”

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