CLEARING FOR THE OTC MARKET

By André A. Cappon

The OTC market has historically dealt with counterparty credit risk through a variety of methods, ranging from simple counterparty credit limits (typically based on the risk profile of the product and the capital of the counterparty) to collateral or margin (i.e. "haircuts" for repos), margin "calls" based on mark-to-market or "mark-to-model" processes and more recently, bilateral netting agreements. While these techniques are good, they are weak relative to the power of a clearinghouse.

A modern clearinghouse is a truly marvelous invention (see Exhibit below)

CLEARINGHOUSE FEATURES	BENEFITS
Trade matching	• Matching eliminates operational risk. The clearinghouse is only exposed to counterparty credit risk and free of market risk
Central counterparty: buyer for every seller, seller for every buyer	• Clearing members trade with a single, strong counterparty- the clearinghouse • The clearinghouse achieves a high degree of diversification of risk, since it deals with all counterparties in the market
Multilateral netting	• Multilateral netting reduces average exposure. It is estimated that bilateral netting reduces average exposure by 50%, whereas multilateral netting reduces exposure by over 80-90%
Initial margin / collateral depository	• Clearinghouse holds collateral for each participant's position. Initial margin covers likely loss from liquidation of position, in case of counterparty failure to perform
Daily mark-to-market	• Positions are marked-to-market. P&Ls are realized continuously.
Daily margin payments: single net payment to/from clearinghouse from/to each member	• Central role of clearinghouse reduces number of payments and processing costs
Delivery vs. Payment	• Reduction of risk (Herstatt risk e.g.)
Central depository (may or may not be part of the clearinghouse organization)	• Safekeeping of assets • "Dematerialization": transfers of assets are replaced by electronic transactions • Central recording of ownership rights eliminates risks of error and fraud
Credit risk management -membership requirements -exposure monitoring -surveillance of members' financial condition -surveillance of brokers' and customers' financial conditions -ability to exclude risky player	• Active, professional credit risk management • Selectivity for admission to membership • Economies of scale in monitoring participants • Strong "police power": a participant excluded by the clearinghouse is out of business
Mutualization of risk	• Any loss is shared among members (various sharing rules), rather than "concentrated"
Explicit charging for credit risk protection through clearing fees	• Transparency
Guarantee fund (s), clearinghouse equity capital, third party guarantees, credit lines, insurance	• Clearinghouse specifically earmarked funds as well as its own equity act as cushions against loss

Through structure and process the clearinghouse reduces credit risk to a minimum. In fact, in the long history of futures exchanges there have been very few clearinghouse defaults and negligible losses.

In financial businesses capital has a role of “cushion” against bad surprises or unexpected losses. A clearinghouse *substitutes capital with structure*: it enables investors, brokers and dealers to transact high volumes of business while economizing on capital and collateral utilization.

The OTC market can clearly benefit greatly from the support of clearinghouses. Similarly, clearinghouses are happy to expand the scope of their services and increase their own volumes.
Several major initiatives have been in the news in the last few years:

In 1994, BM&F (Brazil’s Bolsa de Mercadorias e Futuros) was the first major derivatives exchange to offer a clearing service for the (then) new Brazilian swap market. This initiative was prompted by a regulatory requirement: the Central Bank of Brazil required banks to register their swap transactions with the Exchange or with an electronic book entry depository system called CETIP. BM&F was able to differentiate its service by offering an (optional) credit guarantee in addition to the simple registry service and quickly gained a large volume of swap business. As of January 1998, BM&F was handling some 3000 swap transactions per month, representing a volume of $ 21 billion and with an open interest of some $ 7 billion.

Several other exchanges and clearing or depository organizations have since become interested in offering clearing services for the OTC market. The focus has been on swaps (CME Swap Depository, Board of Trade Clearing Corporation HITS, LCH’s swap clearing facility) and repos (GSCC, MATIF).

The experience to date suggests a few lessons:

Clearinghouses can best support simple, standardized, liquid OTC products, for which frequent valuation (e.g. daily) can be readily done, based on a reliable market prices or on universally accepted valuation models.

End-users of derivatives, be they financial institutions or corporates are not quite aware of the benefits of clearinghouse support to OTC transactions. They need education.

Not all OTC dealers welcome a full-fledged clearing service . In most OTC markets there is a “club” of major or primary dealers, typically highly capitalized, strongly rated institutions. There are, to be sure, many smaller or secondary dealers, but they usually control tiny market shares. The major dealers make money by virtue of their role as market-makers, by utilizing their credit rating to significant advantage and by accepting credit risk. A clearinghouse can erode their advantages by creating an “even playing field” with regard to credit risk.

Not surprisingly, the smaller dealers are eager for clearing services. The larger dealers are usually reluctant to accept a full-fledged clearing service with credit guarantee, except perhaps in commodity products where profit margins have already eroded.

The value of a central clearinghouse increases as the number of counterparties increases. As a result a clearinghouse serving the OTC market will want to open itself to as many members as possible and will want to adopt a standardized, open architecture systems philosophy. This clearly suggests broad coverage is desirable, be that at a national scale or regional/ time zone scale (e.g. Europe, the Americas) as well as in terms of products which enables cross-margining.

The clearinghouse may offer several levels of service to the OTC market ranging from registry, standardized valuation services, bilateral netting support, collateral administration to full-fledged multilateral netting and credit guarantee. Clearly, the service scope needs to be defined so as to appeal to a critical mass of dealers, both big and small.

Risk management is also a major issue. Once the clearinghouse is there, offering a guarantee, will there be “adverse selection” or “moral hazard” ? Will the weakest dealers flock to the clearing service, will most dealers send their riskier transactions to the clearinghouse ? Careful risk management processes must be built into the service.

Pricing the service is also a major issue. For the basic “processing” service levels (i.e. registry, valuation, collateral management etc.) the clearinghouse can only charge a modest service bureau kind of fee. For the credit guarantee, the fee should definitely be significantly higher or somehow risk-adjusted. At some point, if the fee were to reflect the full counterparty credit risk, it may become too high to be practical.

To sum up, clearinghouse services for the OTC market are definitely coming and as the BM&F experience suggests, can be quite successful. They do need to address a number of issues, as outlined above. Clearinghouse services for the OTC market are a major dimension of the overall convergence between organized markets and OTC markets that is going on.

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