# A bird's eye view

## Optimising collateral requirements across central counter parties

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The closer, the better

*Faced with growing requirements for collateral, brokers operating on centrally cleared markets can leverage their agent bank to help them optimise cost, explains Eric Roussel, Head of Product, Trade & Market Services at BNP Paribas Securities Services.*

When the first central counter parties (CCP) entered the post-trade arena back in the 1980s, agent banks took this opportunity to enrich their traditional custody and settlement activities by offering their clients a value-added clearing proposal. They started building the technical interface with the CCP, implementing infrastructure changes and taking over other tasks not core to their clients, thus shielding them from this major change in the trading environment.

## Much more than operational outsourcing

The agent bank's role doesn't just stop at an operational outsourcing clearing service: they are uniquely able to provide banking services as well. Due to the legal agreements between the exchange, the CCP, the client and the clearer, a relationship whereby the agent bank is committed vis-à-vis the CCP on the transactions traded by the client is established. Thus agent banks not only provide an operational outsourcing clearing service, but - by taking on the client's risk - they also offer a credit service. The main aim of CCPs is to shelter members from systemic risk, as such, this service falls out of their scope.

## Optimising the uncontrollable

Since agent banks have no pre-trade control over their clients' transactions, the only way to provide such a credit line is by optimising their client's collateral positions whilst managing their own risk. "Know Your Client" procedures and near-real-time control on the transactions traded by clients are both fundamental to risk control. These two points speak for themselves and **this paper will focus on the third element of risk management: collateral, where agent banks can bring added value** via the optimisation of the collateral requirements from the different CCPs.

## A few simple equations

In a traditional clearing agent model, the agent bank passes on to its clients the very same request for collateral as called by the CCP. For example, if the CCP calls EUR 100 from the clearer, then the clearer will also ask for EUR 100 from its client. This may be a simple model, but it, nevertheless, has the flexibility to offer several benefits to the client.

## "Repo financing – like"

The client is able to substitute the required EUR 100 cash, for an eligible securities position. Each agent bank will have their own risk appetite, but for example a EUR 120 securities position may be offered as collateral for a EUR 100 CCP cash requirement.

## "Eligibility optimiation"

An agent bank may be ready to accept securities which are not eligible at the CCP, thus acting as a "transforming" agent and widening the collateral options for its client base.

## "Risk exposure optimisation"

An agent bank, based on its internal risk policy, may be able to secure its risk with less than the amount required by the CCP. This remains subject to local regulations as well as to the CCP's general rules book. But, where permitted, it brings a clear advantage to clients, as the agent bank services the deficit itself.

## Now to the real world

The examples above outline how a clearing agent can mediate between one CCP and a trading member. If we want to stick to the current trend, it would be probably beneficial to **analyse the scenario where the agent bank is servicing clients across several CCPs.**

In this case, the bank will maintain its flexibility in terms of repo financing and eligibility optimisation as described above.. But it is in the optimisation of risk exposure that the potential is much greater.

To take a simple example, if two CCPs request collateral of EUR 100 for a trading member's activity, in a like-for-like exchange, the agent bank would now be requesting EUR 200 from the client to secure its exposure.

In fact, applying very basic maths and under the hypothesis of little correlation between products traded on each CCP, VAR methodology states that the required collateral to cover such an exposure is actually the square root of (1002 + 1002), roughly equal to EUR 140. This is due to what is usually referred to as the "portfolio effect", ie, the risk you have on a portfolio is always less than the sum of the risk you carry on each underlying security calculated individually.

## A bird's eye view

Unlike the CCP, the agent bank has a bird's eye view of its client flows, and is thus able to achieve substantial savings in term of collateral needs. Known as **Synthetic Clearing®** at BNP Paribas.

Synthetic Clearing also allows trading member firms to **achieve one of the main benefits expected from interoperability:** one single margin call for the client, regardless of the number of exchanges traded and number of clearing houses used. Additionally, the reduction in collateral requirements can be further extended by taking advantage of compensations between similar products traded on different exchanges (eg. securities belonging to the same industry but listed on different stock exchanges, like Peugeot and BMW).

## Hedge your bets

Looking at the broader market, clients often adopt a "delta hedged strategy", whereby the risk taken to short a long option (call) is offset by buying the delta equivalent underlying the option. This implies the use of at least two CCPs, one dedicated to equities, the other to derivatives.

Between trade date and settlement date, the "cash equity CCP" requests collateral to cover the unsettled trade risk (eg EUR 100). Simultaneously the "derivatives CCP" requests collateral to cover the open position (eg EUR 150). Following settlement date, the "cash equity CCP" no longer requests any collateral as the trade has been settled. On the other hand, the "derivatives CCP" still requires the EUR 150 guarantee as the derivatives position remains open.

In this scenario a client acting without an agent bank must post EUR 250 collateral before the settlement date and EUR 150 after.

## So how can the agent bank intervene?

Between trade date and settlement date, the agent bank is committed vis-à-vis the "cash equity CCP" on the pending trade. Looking at the risk on a global basis, ie taking the Synthetic Clearing view and applying its own risk model, the bank can conclude that it is carrying relatively limited risk (EUR 50 in our example) as the equity trade offsets most of the risk generated by the option, and vice versa.

After settlement date, the situation is relatively similar: the option risk is no longer offset by the pending equity trade, but rather by the equity position that the agent bank is holding as the client's custodian. So the equity position bought by the client is automatically used as collateral to cover the risk taken on the derivatives side.

Consequently, for the agent bank there is no difference in terms of risk between the situation "before" and "after" the settlement date. Furthermore, looking at the risk on a global basis, the **collateral requested by the clearer is far less than the sum of the amounts requested by each CCP.** This is mainly due to the fact that, in most cases, securities and derivatives are not traded independently, but as part of one "strategy" whereby the risk of one product is partially offset by the other.

It must also be noted that this kind of offset effect would never be captured by interoperability. On the cash equity side, CCPs only have a view on clients' positions during the settlement cycle, while the derivatives are held by the CCP for the duration of their life. **At the end of the settlement process, the CCP cannot offset the derivatives risk** by using the securities as it no longer has a view on these.

By combining clearing and custody with an appropriate risk model, agent banks are in a unique position to deliver high value-added services because assets held (both securities and derivatives) can be used to accommodate the collateral requested by CCPs.

Domestic-only and one-asset trading strategies are fast becoming a thing of the past, yet market fragmentation continues to pose challenges across the globe. The intermediary's primary role is to shield clients from these challenges and optimise their opportunities.

**Eric Roussel,** Head of Product, Trade & Market Services at BNP Paribas Securities Services

## BNP Paribas Securities Services – sheltering you from market complexity and cost hazards

The arguments for appointing a general clearing member (GCM) to minimise capital requirements and limit your liability have never been stronger. Because we benefit from **a bird's eye view of our clients' flows, we are able to achieve substantial savings in term of collateral needs.**

With BP2S, a member of all Europe's CCPs and beyond, you have easy and flexible access across regions. **We combine clearing and custody with an appropriate risk model** to offer you optimised post trade costs.

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