Collateral Transformation Service

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According to clearing members, many derivative users such as pension funds, mutual funds and other buy side participants will not have enough eligible collateral to satisfy the requirements of the CCPs. The Clearing Members, custodian banks or prime brokers would need to turn their customers' less liquid assets such as Corporate Bonds or other Asset Backed Securities into CCP Eligible securities like cash or government debt through stock lending or the vast repurchase or repo market. This is known as Collateral Transformation Service. This paper talks about the Opportunities and Risks of undertaking Collateral Transformation Service by the Financial Institutions.

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Introduction

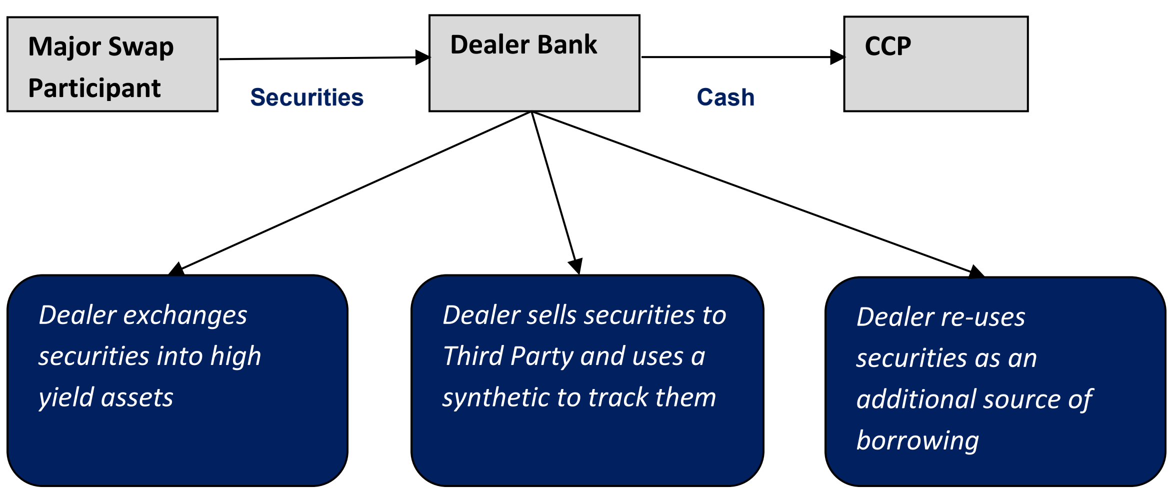
"It has never been so clear just how closely liquidity, confidence and collateral are truly linked in today's financial markets… Before 2008, prices were swamped in liquidity but the crisis appears to have sobered people up and helped move the market into a fair and careful acknowledgement of the quality of collateral." – Marek Sanders (International Securities Finance Magazine).

As the banking world moves towards greater regulation, both sides of the Atlantic, OTC Derivative Collateral Management gets into the spotlight. The regulators want OTC Derivatives to be cleared through Central Counterparties (CCPs). This means posting Collateral for Initial Margin and Variation Margin (IM and VM) with the CCPs so that they are safeguarded against Counterparty Credit Risk. IM would mostly be in the form of cash and government bonds. Given the volatility in the markets and further global integration, VM would need to be posted with the CCPs by the clearing members at least twice a day. Asset Managers all over the world are looking to revise their risk strategies, by upgrading their operational capabilities to have more sophisticated collateral management including collateral auto-substitution, cross margining and collateral enhancement,

Morgan Stanley and Oliver Wyman estimate in a report that more than $ 2 trillion worth of OTC Derivatives will be headed for central clearing in the coming years. This would mean a similar amount of additional collateral will be needed for the OTC derivative trades. The CCP must have very good collateral to prevent systemic risk. Firms must be equipped to deal with increased collateral volumes and the complexities brought on with clearing of OTC derivatives after the regulatory reform in Europe: European Market Infrastructure Regulation (EMIR) and Dodd-Frank Wall Street Reform and Consumer Protection Act.

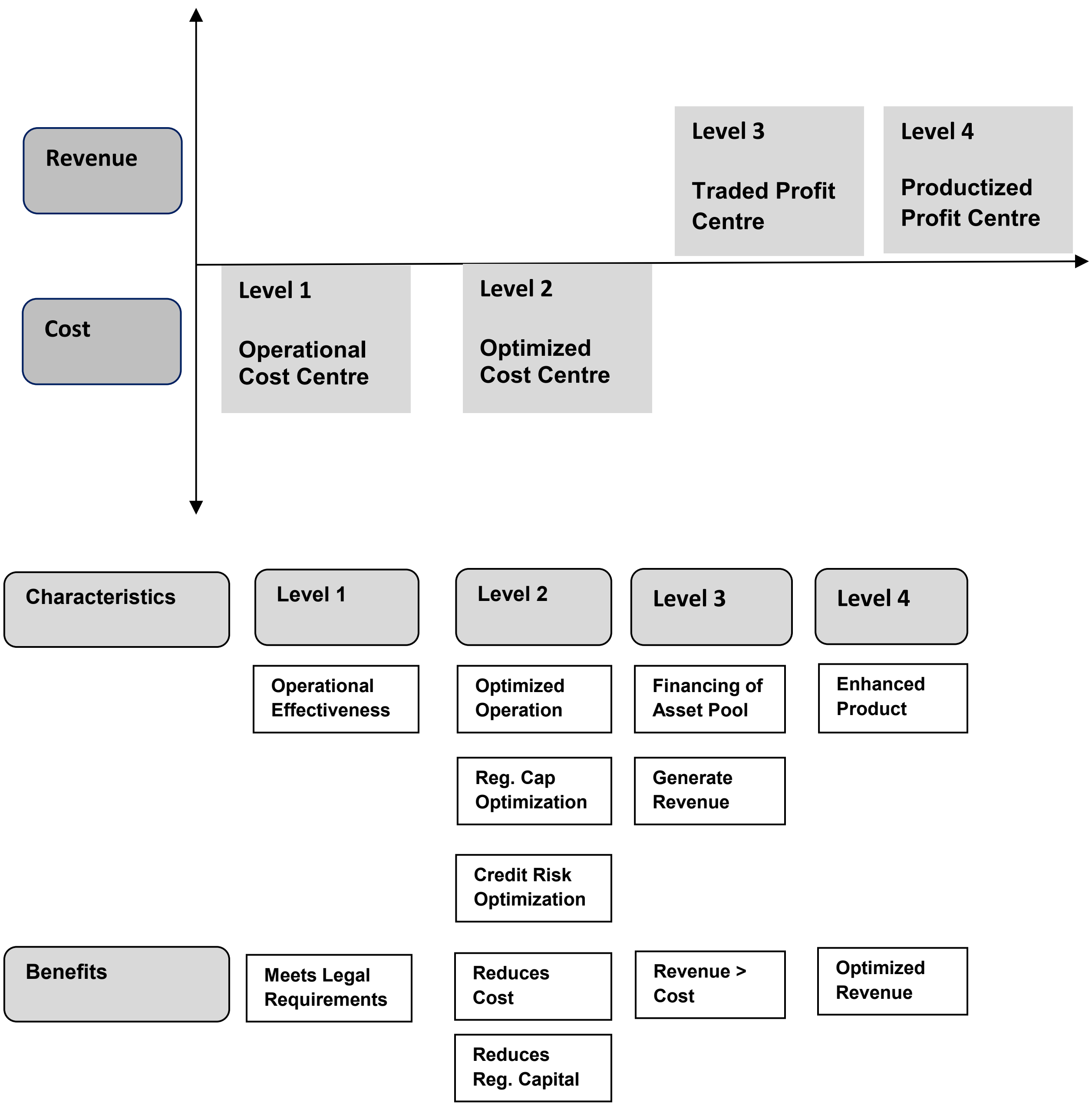
The problem according to clearing members is that many derivative users such as pension funds, mutual funds and other buy side participants will not have enough eligible collateral to satisfy the requirements of the CCPs. The Clearing Members, custodian banks or prime brokers would need to turn their customers' less liquid assets such as Corporate Bonds or other Asset Backed Securities into CCP Eligible securities like cash or government debt through stock lending or the vast repurchase or repo market. This is known as Collateral Transformation Service, which brings with it a lot opportunities and risks. Given the sheer size of the markets and global integration of financial markets, the systemic risk run by the CCPs would be astronomically high if the risks are not properly identified and monitored on a real time basis.

CTS will come into play when Variation Margin needs to be posted with the CCP. It will work as follows:



Organizations at different levels of Collateral Management Maturity:

Collateral Management Maturity Scale



Every participant who is offering Collateral Transformation Service needs to devise an active strategy based on the following questions:

(i) What type of asset classes is the bank/hedge fund/mutual fund offering for Collateral Transformation?
(ii) What will be the legal control agreements in place to see that there is no co-mingling of assets in case of credit event?
(iii) Which central clearing house will the dealer participate in? This will indicate the amount of margins to be posted (at the 99.7% or 99% for LCH and CME respectively). This will also indicate how many times the CCP will call for margin during the day.
(iv) How will the CTS provider flex its operating model to accommodate and work with clients as Third Party Custodians/CCPs etc so that collateral management and posting is seamless and automatic?
(v) What approach will it adopt to service providers such as Euroclear and Acadiasoft?

For example, for a Custodian what should be the Service Strategy for the Collateral Transformation Service?

The Custodian should be in Level 3 or Level 4 of the Collateral Management Maturity Scale to offer this service. This is a fee based service with a lot of potential risks which requires to be tightly monitored. The following decisions need to be taken:

Asset classes: For effective transformation, the custodian should be able to accept and process different asset classes and different currencies from simple sovereign Treasuries to complex structured products. Specialization in a particular class or a group may increase concentration risk and systemic risk significantly.

Legal requirements: Custodians should have ISDA and CSA Agreements as well GMRAs and Margining Agreements

Risk Controls: Measure Counterparty Risk, Market Risk of the Collateral and also strong Collateral Dispute Resolution Strategies. The systems should be based on Rule-based engines and with minimum manual interventions.

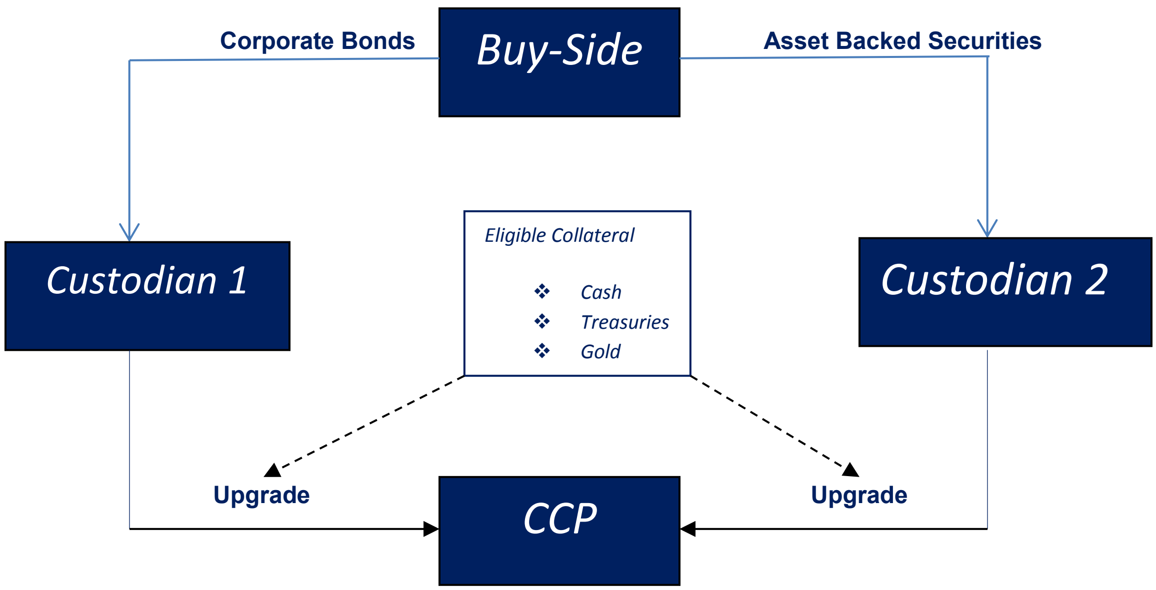
Services to be offered: The Custodian should be able to offer Securities Lending, Clearance and Fund Administration for different client segments viz. Buy Side, Prime Brokers, Clearing Member, Clearing House and CCP. Each client segment would have its own challenges with regard to technology and resources. Initially they can start with the Clearing House and CCPs where the Risk would be comparatively less.

Benchmarking: The aim should be to increase Straight through Process (STP) Rates for better efficiency and streamlining of operations. This would lead to better transparency and reduced counterparty risk. They should have a reduced time to market.

Messaging Standards: Custodians should use the industry messaging standards – ISO 15002. Financial Products Mark Up Language (FpML) is also in vogue and that should be used as well.

Overall, for CTS to effectively take off as a service, Custodians should have a strong investment in IT which is flexible and which can be integrated without too much effort and cost with other intermediaries, global markets and an increasing number of internal systems to reduce time to market.

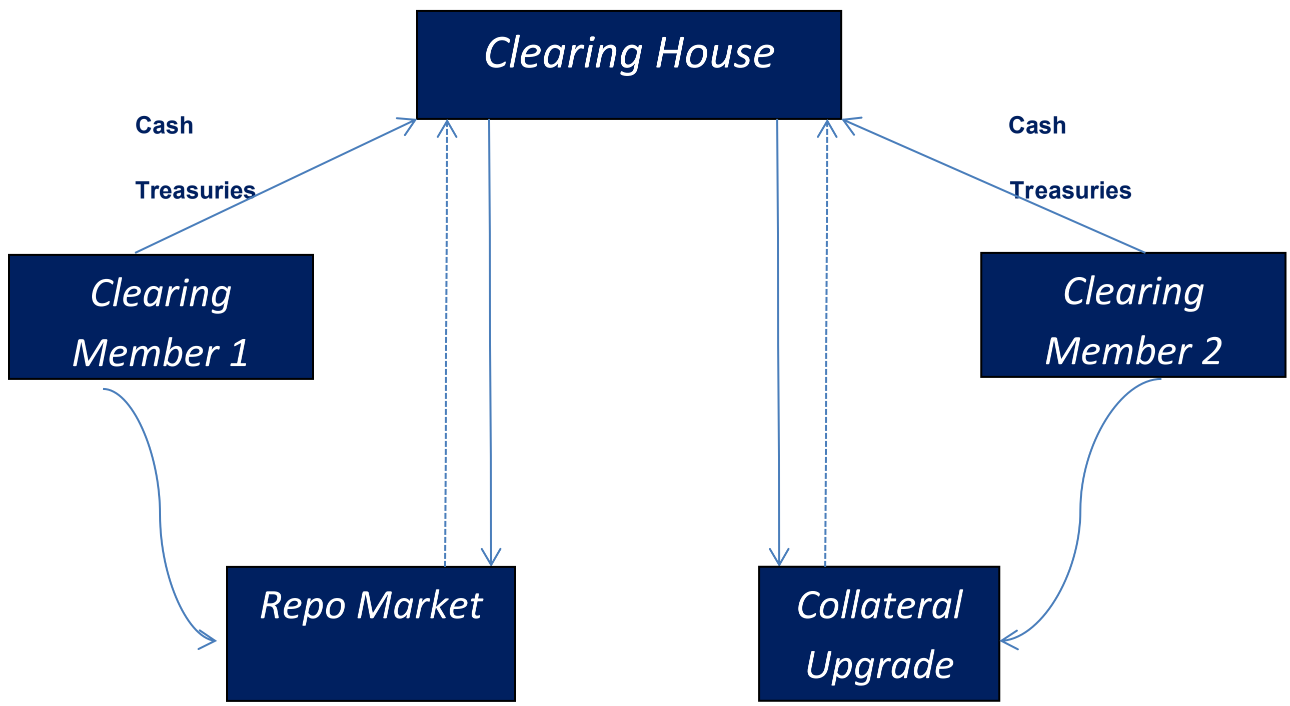
Transformation – Case Scenario 1



There are many challenges faced by the buy-side firms when having the above scenario with two custodial partners. Some of them are listed here under:

- Increased Funding Costs
- Lack of proper inventory management and movement of Collateral
    - Under collateralisation
    - Over collateralisation
- Model Risk because for different valuation engines
- Lack of Peer-to-Peer Platform
    - Margin Calling
    - Handling Payment and Settlement processes
    - Standardised Messaging Tools
    - Collateral Dispute Resolution
    - Data elements to be captured for the process
    - Reconciliation Tools and resources
- Increased investment in Resources
    - Normalising data between the two systems
    - Calculation of Risk Parameters – Value at Risk
    - Calculation of a single view of Credit Exposure
    - Model Risk of the Risk Analytic Engine
- Comingling of assets at the custodial end

Transformation – Case Scenario 2



Spiralling Systemic Risk which is difficult to quantify?

There are challenges again with the Clearing Member/Swap Dealer who would be accessing the same market/counterparties/CCPs with their requirements. Apart from the challenges mentioned above, additionally they would be facing some of them listed as hereunder:

- Posting of Initial and Variation Margin depending on the Market Volatility and the Risk Appetite of the CCP as each of them LCH, CME, ICE have a different set of rules
- Identification of OTC Derivative Products that can be taken for cccllleaaaring
- Greater understanding and investment in legal agreements and counsel
    - Novation which would lead to higher concentration risk with the Swap Dealer/Buy-side with the uncleared trades
    - Master margining agreements
    - Granting security interests/liens for clients (read buy-side)
    - Specification of Contingent Collaterals
    - ISDA and CSA
    - Bankruptcy codes which will differ between different CCPs
- Capital adequacy requirements from Basel III perspective
- Cross-Product Margining when the Client wants to shift account to another Clearing Member
- Quantification of the correlation between different collateral asset class and OTC Derivative Products
- Monitoring network externalities very closely

Business Impacts:

Cross Margining: This would be particularly appreciated for cross product margining capabilities for collateral management. The system would be able amalgamate margin calls across business lines, geographies (both bilateral and CCP) so that it can provide a single net exposure for the MSP. This will bring down the funding costs as well as reduce the margin requirements

Standardizing Policies: The market participants would need to standardize policies with regards to acceptable securities for collateral transformation in conjunction with the repo markets, haircuts for each asset class and regulatory reporting and capital requirements for Basel III.

Heavier Investment: In order to properly manage the Collateral Inventory, and other risk and eligibility parameters , the MSP/Dealer Bank/CCP has to be very sophisticated in its eligibility criteria etc. They have to make significant investment in technology and in human resources.

Outsourcing: This level of sophistication will make the market participants to turn to custodians and they would like to outsource this activity. This would also be because they would not have the necessary knowledge/technology to manage this in-house. Also managing this would increase their operational risk and costs. Outsourcing will help in the firms adopting top notch processing practices and the move towards daily asset valuations/reconciliations and margin calls. For instance Pension funds may be exempt from CCP but they would still need to collateralize transactions and cannot afford to increase their costs by having a back office in house.

Deepening Repo Market: As we move into 2012, and with the onset of reform and CCPs gaining traction, the repo market will gain a lot of depth both with respect to the number of players and also the type of securities being offered as collateral. The US Repo market has a daily turnover of in excess of $ 4 trillion. There will be a lot of competition between the Dealer Banks (General Clearing Members), Custodians and Prime Brokers as they will be competing for the same piece of the pie. Currently in the US Repo Market, the most commonly used securities for Repo transactions are U.S Government Securities 30%, highly rated Mortgage backed Securities 39.2%, Federal agency and securities of the government sponsored enterprises (for example, Fannie Mae and Freddie Mac) approximately 17.1%, corporate securities 6.7%, and other (including equities and money markets) account for 7%. (Source: Federal Bank of New York, Payments Risk Committee).

Safety of the Repo Market: This market has been tried and tested through the years and has performed reliably even through the Credit Crisis. The repo market provides the cash providers, collateralization with additional margin requirements. The collateral is also marked to market on a daily basis giving correct valuations. There is standard legal documentation available in the market, which will further bring down the risks for the participants.

Business Innovations

CTS has given rise to some business innovations. Some noteworthy ones are mentioned below.

Collateral Intermediary: This is a new breed of organisation which is emerging to centralise movement of collateral between various market participants across geographies and asset classes. This would help in delivery optimisation between participants and the clients that they serve. They will be able to calculate margins in an optimised manner on matched portfolios

Tri-party Custodians: There is a need for segregation of margin with third party custodians in bankruptcy protected vehicles for all uncleared OTC Derivatives. This is done through ‘Control Agreements’. This function would be very keenly needed for the Buy-side and Major Swap Participants for their non-standard OTC Derivatives. This will reduce their risk with the Swap Dealers.

Collateral Messaging Platforms: There will be a tremendous increase in communication between all the players in the Collateral Management Domain with increased margin calls, settlements, valuations, dispute resolutions etc. Normal email will give way to messages coming on screens which should be actioned upon. The messaging solution should be compatible with the Trading and the Settlement platforms so that there is a seamless operation.

Risks in Collateral Transformation Service

Liquidity Risk: The major risk is the liquidity Risk. The Dealer Banks are offering loans against illiquid securities. The liquidity mismatch will be accentuated if the Swaps which have gone through the CCP lose value and also the Collateral which has been offered as security. And during times of crisis this indeed has a spiraling effect. The MSP will again go back to the Dealer Bank for extension of credit. This will seriously affect the liquidity of the Dealer Bank. Hence the Swap value and the Market risk of the Collateral must be monitored very closely and should be available real time at all points of the day.

Counterparty Credit Risk: The Dealer Bank can re-use the securities in different ways viz. swapping them with other higher yielding assets, selling th so thaem outright and investing in a cheaper synthetic through derivatives and taking on additional leverage etc. The Dealer Bank is then exposed Counterparty Credit Risk, which can spiral out of control if not monitored carefully.

Concentration Risk: There can be two types of Concentration Risks attached to CTS. One would be **Issuer Concentration,** where securities being offered come from a specific bunch of counterparties. During times of crisis, the securities may not have a ready market for sale adding further to the liquidity crisis outlined above. The other kind of concentration risk is the **Maturity Concentration.** This risk would arise when the maturity term of the collateral securities are similar. The volatilities and the factors affecting interest rates would then compound and add to the crisis.

Collateral Correlation Risk: Collateral is the primary risk mitigant in the event of default. Hence correlation between the collateral and the credit quality of the MSP/Dealer Bank/Clearing House/Custodian should be of fundamental consideration. The greater the level of positive correlation, there will be a greater level of encumberance over the market participant’s assets pre-default due to margining and calls to top up collateral. For banks, this could be specifically dangerous because it will structurally subordinate a bank’s unsecured creditors, including its retail depositors.

Conclusion

In conclusion CTS is going to generate a lot of interest from the Investment banks as well as from Custodians who could have the technology almost ready to handle this kind of service. The risks could be very high if not handled adequately and effectively. The need also is to understand the risks in totality which may not also be possible because of network externalities.

Is this another subtle bail out strategy for cash strapped governments who want liquidity? As what CTS would entail many governments to do is to issue more Sovereign paper to take care of the need for quality assets, which is backed by the central government, with minimal probability of default. This is being currently being considered by the Reserve Bank of Australia with the Australian Government, subject to Basel III norms of course.

Somehow it seems that risks in the capital markets never disappear, they just get transferred to someone else.

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