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# COLLATERAL MANAGEMENT – AN INTRODUCTION

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## ABSTRACT

In the wake of the Current Financial Turmoil, Collateral Management, an area, once seen as an ancillary function is now seen as a thoroughly main-stream and important regulatory compliance framework in a Firm's Business practice. It has been viewed by experts in the field to be the most efficient manner in mitigating Credit Risk and Market risk for an organization involving in Securities Operations.

This paper provides an insightful depth into Securities Lending and Collateral Management, in the current Economic scenario by drawing upon how Collateral Management could be used to effectively manage counter-party risk. The paper takes the reader through the Collateral Management process in detail, enumerating the trends and challenges Organizations might encounter in the near future. The paper also provides a broad based view on how Technology could bridge the gap between the As-Is and To-be scenarios. Finally, the author concludes the paper by providing his views on the next generation of Collateral Management Framework.



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## TABLE OF CONTENTS

INTRODUCTION .....	3
STATISTICS FOR COLLATERAL MANAGEMENT IN THE LAST DECADE .....	4
SALIENT FEATURES OF COLLATERAL MANAGEMENT SYSTEM.....	6
Bi-Party Collateral Agreement: .....	6
Collateral Trading and Re-hypothecation:.....	7
Tri-Party Collateral Agreement .....	7
Repo Agreement .....	8
KEY COMPONENTS OF A COLLATERAL MANAGEMENT SYSTEM.....	9
Collateral agreement and documentation (Collation) .....	10
Collateral allocation .....	10
Collateral Calculation.....	10
Collateral optimization and Evaluation: .....	10
Counterparty communications .....	11
Reconciliation .....	11
RISK MANAGEMENT IN COLLATERALIZATION.....	11
ROLE OF TECHNOLOGY IN COLLATERAL MANAGEMENT SYSTEMS .....	13
Integration with External systems .....	13
Scalability .....	13
Information efficiency.....	13
Messaging standard.....	13
Technology .....	13
Enterprise integration .....	14
BENEFITS TO THE PARTIES.....	14
Lender.....	14
Borrower.....	14
RECENT ADVANCEMENTS & TRENDS IN COLLATERAL MANAGEMENT .....	15
CONCLUSION .....	17
REFERENCES.....	18
ABOUT THE AUTHOR.....	18
ABOUT WIPRO TECHNOLOGIES.....	18

## INTRODUCTION

Collateral is a broadly used term, to describe any asset that is used to secure a borrowing of cash and take form of property, cash, or most likely, securities. Collateral is form of a guarantee that the cash borrowed by the counterparty would be returned back at the pre-defined time. In the event that the cash borrower fails to pay back the borrowed cash to the lender of cash, the lender has the right to sell the collateral in order to raise the cash that is owed by the borrower.

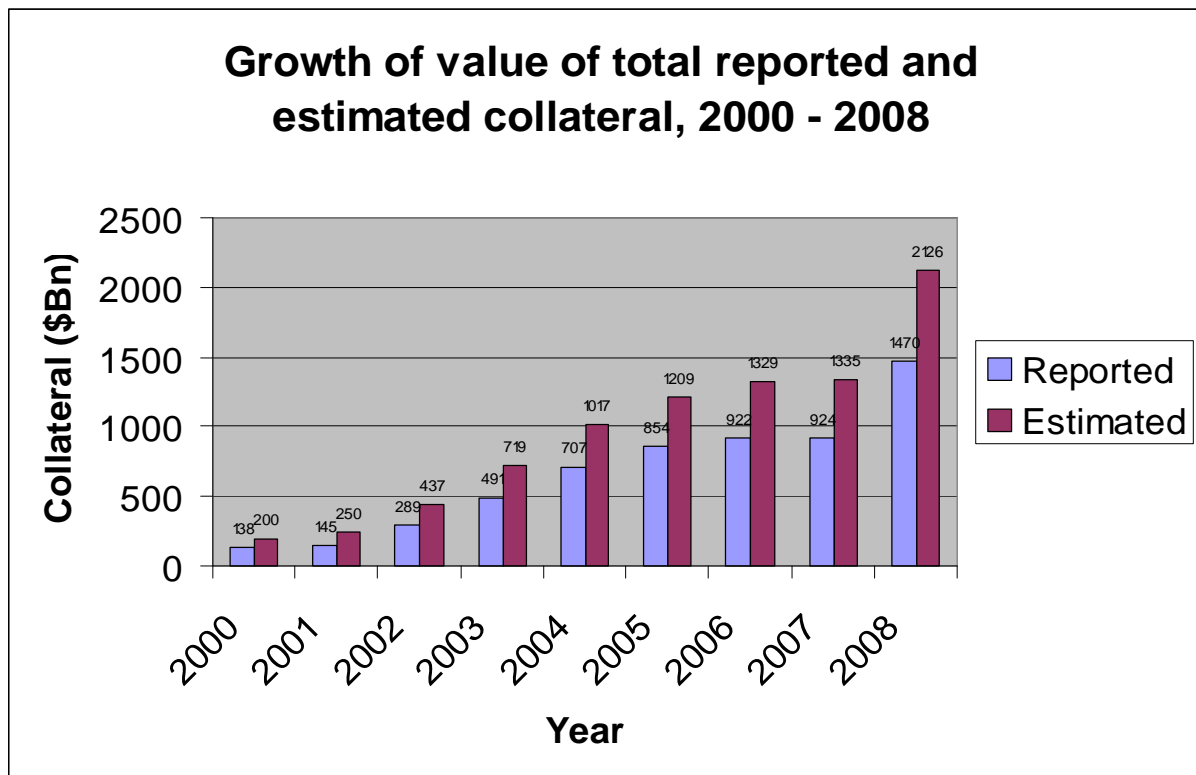
Credit risk, in its simplest definition, is the risk undertaken by an Organization, wherein the Organization will not receive an amount of money it is owed because the party that owes the money is unable to re-pay and defaults on its obligation. This could happen for a number of reasons, the most relevant in the current scenario being, companies being short on cash, because of reduced sales, and/or banks not willing to lend. Credit risk exists whenever an institution has a relationship with a counter-party, which has an obligation to make cash payments in the future. The probability of a counter-party defaulting on its payment increases, the farther away in time the payment is expected, since, further away the payment date, the higher the possibility that some event may cause the firm to default on its payment. This is true for any type of transactions, including collateral in lending, in securities trading and derivatives markets, and in payment and settlement systems. As a result, when two parties engage in a Collateral Agreement, they stand to gain. The lender significantly reduces Credit risk while lending cash, and the borrower gains access to much more favorable conditions for financing. As a result of providing Collateral on borrowed cash, the borrower also gets a wider breadth of financing options, and a deeper access to financial markets.

As noted from the above definition, Collateral Management is type of Credit Enhancement Technique, which assists an organization to mitigate Credit risk, by accepting a similar valued asset in return for the loan/cash lent. The Credit exposure, a term used to describe the loss to the lender of cash, in case of the borrower defaulting on his payments, is significantly reduced, by effectively managing Collateral. The Credit exposure is calculated by a commonly used procedure called MTM (marked to market). The collateral is revalued on a frequent basis (Sometimes even hourly) by valuing it against the Current market price. This calculates the “Fair Value” of the Collateral; the amount the lender would recover, in case the Borrower party defaulted at that instance.

A typical Collateral Agreement consists of a Borrower (Borrower of Cash) and a Lender (lender of Cash). Proprietary Collateral Agreements are those agreements, where the borrower and lender settle among themselves, without the help of an external agent. In further sections, interactions between the two parties will be shown, hence showing a clear picture of how a Collateral Management system functions. We shall also see how a third party might help in further reducing the Counter-party risk between the members. An effective Collateral management system should be able to rebalance the exposure, by demanding/releasing collateral from/to the Borrower party, as per changes in the market prices observed.

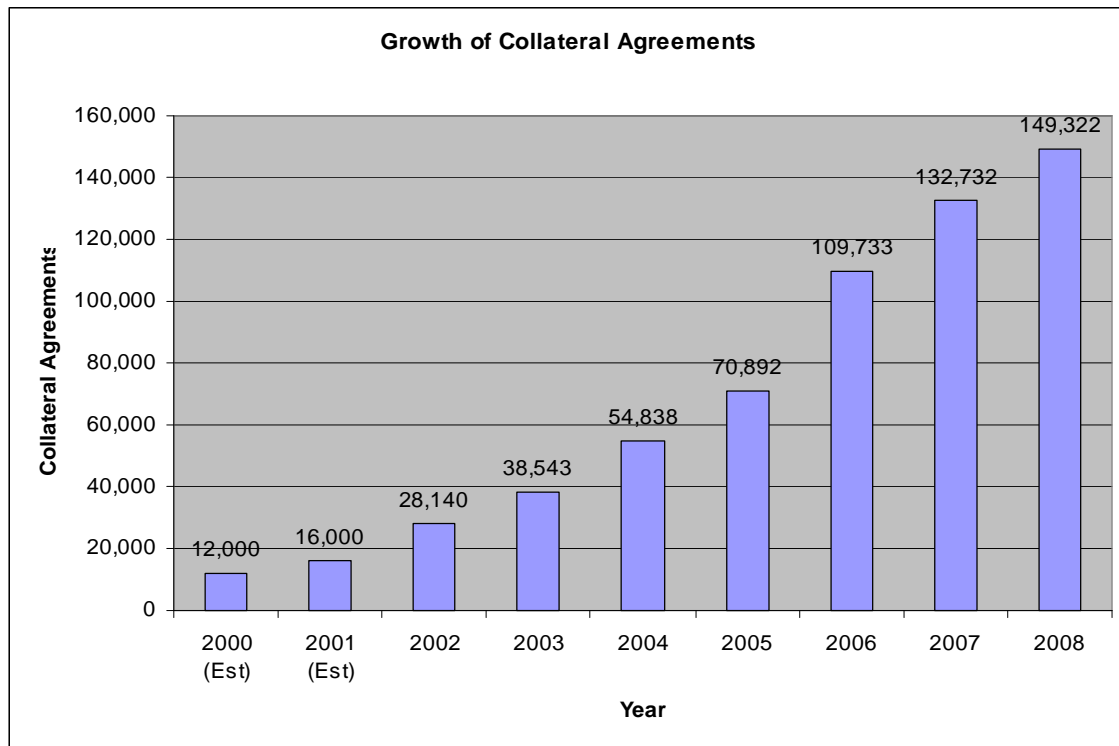
## STATISTICS FOR COLLATERAL MANAGEMENT IN THE LAST DECADE

ISDA (International Swaps and Derivatives Association) is an international organization that overlooks and regulates the Derivatives Market. ISDA release an annual Margin Survey, which gathers consensus of the leading Institutions in the Collateral Management field, and releases statistics on use of Collateral assets in the OTC derivatives market. From the data obtained in this survey, it is seen that the value of Collateral Assets used in conjunction with Over-The-Counter Derivatives by Financial Institutions has increased from just about \$ 200 bn in 2000, to about \$ 2.1 tn in 2008 (Estimated). This represents an Annual Growth Rate of 34%. In the last year alone, the growth rate of Collateralized assets stood at 60% (\$1335 bn in 2007 Vs 2126 bn in 2008).



*Fig 1: Collateral Assets - Growth over the decade*

A Collateral Agreement is an agreement between the borrower and lender. In the later stages of this paper, we will see what constitutes a Collateral agreement. The increase in number of Collateral Agreements directly co-relate to the increase in Assets under collateralization. As seen from the chart, the number of Collateral Agreements has increased at an annual growth rate of about 37%, which is consistent with growth rates of Collateralized assets.



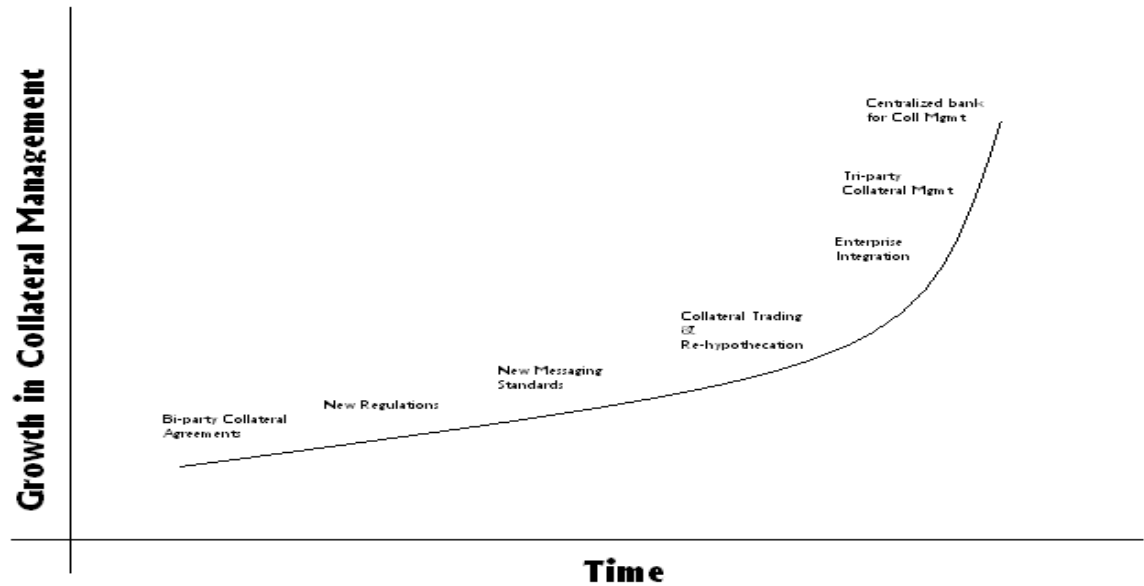
*Fig 2: Collateral Agreements – Growth over the decade*

The reason for this steady but progressive growth in use of Collateralized assets is self-evident. Companies have been wary about High profile corporate failures over the last decade, the prime examples being the collapses of giants, Enron and WorldCom, and more recently, Investment Banks like Lehman Brothers and Bear Sterns. This has heightened the need for robust credit risk processes. The high growth rate can also be attributed to the growing volumes in today's securities markets, as well as the emergence of derivative trading in the last decade. Hence, the compelling reason as to why a Firm collateralizes its Credit exposure with its counterparty is to not be on the losing side, when the Counterparty defaults. An effective Collateral Management system significantly reduces this Credit/Default risk, where the Counter-party does not pay back what it owes, in the event of a default.

In the event of the current Credit crisis, as Bank lending gets scarce, every passing day, liquidity in today's Financial markets mainly depends on such (re)financing activities by which Banks and other securities firms finance their working capital by lending and borrowing securities to/from counterparties, customers, and competitors.

From a Sell side's point of view, Collateral Management allows these firms to increase trading volumes, by financing trading activities, as a result of lending securities held in their custody. Also, from a Buy side point of view, Collateral Management helps these investment firms by funding trade activities to make critical investment decisions, on the basis of cheaper access to funds and by avoiding the risk.

# SALIENT FEATURES OF COLLATERAL MANAGEMENT SYSTEM



*Fig 3: The Growth of Collateral Management from a Functional Point of View*

Over the years, as seen from the time chart below, Collateral Management has moved leaps and bounds, from a single, ancillary function of an Organization, to develop as a strong Business practice that forms the core aspect of the organization.

## Bi-Party Collateral Agreement:

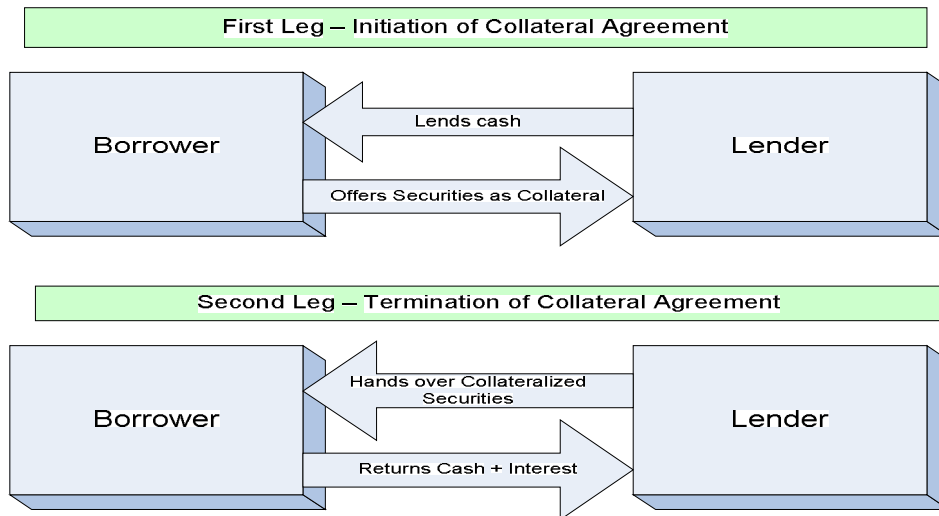
Collateral Management started out as bi-party agreements, where two parties interacted among themselves, and formed a Collateral agreement, without an interface with either a third party, or a Centralized bank. This is the simplest form of a Collateral Agreement. These were more or less customized and over the counter agreements. A Bi-party Collateral Agreement, as shown below, is a two-legged transaction.

1. **Initiation of the Agreement:** This is the first step of an agreement, where the Borrower defines the amount of cash/securities it requires, and identifies a Lender, to obtain the funds. The Lender of funds analyzes the collateral provided by the borrower, and completes the transaction. At the end of the first leg, the Lender has delivered funds to the borrower, and the borrower has offered securities as collateral to the lender.
2. **Termination of Agreement:** Based on the terms of the agreement, after the specified period of time, the borrower returns the cash to the lender, along with an Interest at a pre-specified rate. To complete the termination leg of the transaction, the Lender returns the collateralized assets back to the Borrower. The Agreement is now terminated.

In this case, there is no external intervention, from a third-party. Hence there still exists a certain amount of risk at the termination of the agreement, where the lender might have locked up the Collateralized assets and might not be able to deliver them to the borrower. A similar risk exists from the borrower's point of view, where the borrower might not be

## COLLATERAL MANAGEMENT – AN INTRODUCTION

able to provide additional collateral, in case of decrease in market value of the securities held as collateral. Managing collateral bi-laterally requires both the lender and the borrower to be active in delivering cash or eligible securities, and in managing, recalling and substituting collateral. As a result, banks are moving towards Tri-party collateral Management.



*Fig 4: Bi-party Collateral Agreement*

### **Collateral Trading and Re-hypothecation:**

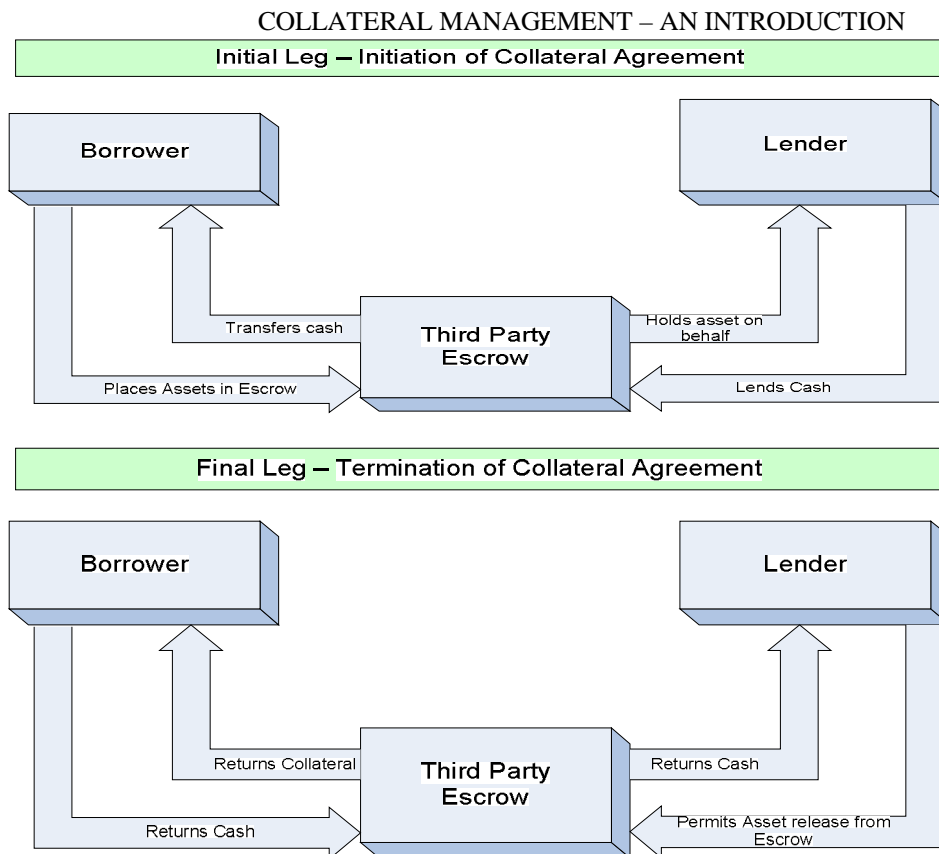
Collateral Trading is the concept of trading the agreed collateral on an exchange. This is generally done to free up funds for further working capital requirements by the bank. For example, if a lender has Collateral from a borrower, in exchange for its funds, but wants access to cash immediately, the firm might trade the Collateral in the open market. This type of trading traditionally involves relatively few market participants and represented a very small proportion of total trading. Collateral Trading needs to be mentioned in the Credit Support Annexes, so that both parties are aware of such trading developments.

Re-hypothecation means multiple use of Collateral. This is the process where the secured lender may extend the collateral posted to it, by either lending it or posting it as collateral to another party, to fulfill its obligations. This is another type of development to free up collateralized capital. In the case of collateral trading, there were a number of legal issues, and fine print documentation to the Credit Support Annex (CSA), that needed to be adhered to. In contrast, Re-hypothecation is much simpler and easier to use, because of harmonization of systems and lesser legal hassles.

### **Tri-Party Collateral Agreement**

In the case of a Tri-party Collateral Agreement, a third party (Usually the Custodian Bank of the firms) is involved. This third party acts as an intermediary. The Custodian bank is the safe-keeper of the Collateral for the Lender, and assists in transferring funds from the Lender to the Borrower.

As neutral tri-party agent, they perform transaction processing on behalf of both the borrower (collateral giver) and the lender (collateral taker).



*Fig 5: Tri-party Collateral Agreement*

In between the transactions, the Custodian Bank also does the following functions:

1. Recording of Collateral Agreement terms and conditions
2. Valuation of Collateral Assets
3. Valuations of trade exposures
4. Calculation of collateral movement requirements
5. Delivery of collateral calls
6. Processing of received collateral calls
7. Issuing collateral movement instructions
8. Selection of collateral assets for pledging including re-hypothecation of received collateral positions
9. Custody of surplus received collateral
10. Calculation and payment/reception of interest in cash collateral
11. Trade nettings and reconciliations
12. Counterparty dispute resolution

### **Repo Agreement**

Repo Agreements are some of the widest used financial instruments in the Global Financial markets. This is an agreement, where, one party who is the repo seller (Analogous to Borrower) sells securities to another party who is the repo buyer (Analogous to lender), and simultaneously, enters into an agreement to repurchase the identical security at a later date in the future, at a pre-determined price. This is very similar to a Collateral Agreement, where the buyer of the securities enters into an



## COLLATERAL MANAGEMENT – AN INTRODUCTION

agreement to sell back the same securities in the future. The cash exchanges hands at a predetermined rate called the Repo rate. The prime difference between other agreements and the repo agreement is that although, the legal entitlement passes on to the buyer of the securities, the interest and dividends are siphoned back to the Repo seller. Hence, the repo seller stands to gain the economic benefits of the securities. However, if the market moves downwards, the repo seller stands to lose, as the price at which the second leg of repo occurs is pre-determined, and is not liable to change. In this case, the repo seller retains the market risk of the security. The second leg is very similar to the repo seller going long on a Futures contract for an obligation buy the securities at a later date. So, the actual effect of the whole transaction is identical to a secured loan taken by the seller of the repo securities. The main point to consider here is the current legal ownership of the collateral securities by the respective parties.

The following table summarizes the repo terminology:

Participant	Seller	Buyer
First leg	Sells securities and obtains funds from Buyer of securities	Buys securities and provides funds to Borrower
Second leg	Buys back securities and returns cash + interest	Sells securities back to seller and receives cash + Interest

## KEY COMPONENTS OF A COLLATERAL MANAGEMENT SYSTEM



*Fig 6: The Collateral Workflow*

### **Collateral agreement and documentation (Collation)**

A Collateral arrangement begins with the Collateral Documentation. Inevitably, a collateral agreement will specify all the pre-requisites of the Collateral Agreement, like the collateral that is acceptable by the counter-party, frequency of margin calls, haircuts to be applied to the collateral, valuation based on MTM, conditions for re-hypothecation, and close-out and termination clauses

### **Collateral allocation**

The next step in Collateral Management is the allocation of collateral. This is a complex process that involves validations to evaluate Collateral on the basis of the documentation. The Allocation is done keeping in mind the following characteristics of the Collateral.

1. Eligibility of Collateral to the Lender
2. Borrower Ratings:
3. Ratings from Rating Agencies (e.g. AAA from S&P)
4. Maturity and Record Date and other Corporate Actions for the Collateral
5. Required Value to be Collateralized
6. Lender preference (in case of more than one lender)
7. Hair-cut to be applied for collaterals other than cash.
8. Concentration Limits to be applied

### **Collateral Calculation**

A Collateral Management system performs complex calculation for allocating collateral to the lender account, in exchange for funds. Typically, the collateral Management system is integrated with a real time market data feed from any data vendor (Reuters/Bloomberg, etc.). The system calculates the portfolio value of collateral on the basis of this live feed. This process is called Marked-to-Market. This is done on a daily basis, but some advanced systems might be required to MTM the holdings on an hourly basis. Based on the changes in the market value, the collateral value to be allocated is continually adjusted, and margin calls will be made. Margin calls are calls from the lender of funds to invoke the borrower to provide additional funds, when there is a decrease in market value of the collateral. These calls are made to minimize the credit risk, so that in case of a default by the borrower, there are sufficient assets as collateral. Recent trends have led to Collateral Managers using other modes of Calculations, like VaR analysis, and other statistical methods, like Potential Future Exposure, in line with MTM, as Collateral calculation methods.

### **Collateral optimization and Evaluation:**

During a Collateral Cycle, the Collateral Management engine is under a lot of load, as it needs to perform the actions mentioned above. Hence, a Collateral management System should perform a good job of evaluating and optimizing the collateral that it needs to allocate. The move is in the direction of complete STP of Collateral allocation, where the system looks at all parameters in allocating collateral, and finds the most efficient manner to allocate collateral. This issue is magnified when the system needs to re-use collateral (Re-hypothecation) to be allocated to other parties. The system should reduce the number of transactions to a minimum, by performing Nettings of two or more transactions, rather than performing both simultaneously.

For e.g. If there are three parties A, B, and C, and collateral allocation is such that:

## COLLATERAL MANAGEMENT – AN INTRODUCTION

A needs to allocate \$50 to B

B needs to allocate \$100 to C

C needs to allocate \$70 to A

Assuming that all other characteristics for the collateral being the same, this allocation can be optimized as follows:

1. C allocates \$20 to A
2. B allocates \$50 to C

### Counterparty communications

One of the most essential features of a Collateral management system is its ability to communicate effectively between either counter-party. In the current economic downturn, where markets fluctuate so frequently, a robust communication system that communicates accurately is an absolute must. Effective communication, using channels like SWIFT messaging also reduces the manual intervention, hence improving the efficiency of the system.

Another aspect of communication is reporting. A Collateral Management System should have user friendly, easily customizable reporting capabilities, to report for decrease in collateral value, and request for margin calls. Recording such communication, with the help of reporting tools also reduces the number of discrepancies arising from Evaluation of Collateral and Margin calls.

### Reconciliation

Reconciliation is the process where the system checks if the Collateral cycle has been successfully completed. This is done by checking for the position before running a cycle, and then verifying if the transferred assets match the pre-conditions. This is very essential for a Collateral Management system, as this is part of the feedback loop, without which the system cannot be sure of the allocation has been done according to all criteria mentioned. Reconciliation also helps in resolving any trade discrepancies relating to over/under allocation of collateral.

## RISK MANAGEMENT IN COLLATERALIZATION

The chief function of Collateral Management is to mitigate the Counterparty Credit risk associated with lending to the party. However, when two parties are involved in a Collateral agreement, there are some other types of risks introduced. To make the process of Collateral management efficient, these risk types need to be mitigated.

### Operational risk:

The Collateral Management system is an evolving process. New processes may be added to the already existing process, which might result in the employees not being properly trained, and too much of manual intervention in the workflow. Operational risk pose a serious threat on the daily operations, as failure on the part of operations might lead to very large notional losses. As a result, there has been a conscious effort by companies to mitigate operational risk. Some of the important ones are as follows:

- Devise a proper training strategy.
- Presence of sufficient documentation for process flows.
- Following best practices
- Automation of processes to a high extent.

### **Settlement risk:**

Also known as Herstatt Risk, Settlement risk is the risk that a trade in a Collateral management system does not settle as expected. Usually, this happens because one party defaults on its clearing obligations to its counter-party. In this case, the lending party may fail to deliver the collateral at the specified time. Technically speaking, in a Collateral Management system, this is not actually a risk, because the other participant is already protected, however, this might have other broader implications. One of the ways to eliminate settlement risk is to trade with a safe and efficient payment system that is based on global accepted standards and safe practices. The most preferred payment system is the DVP (Delivery Vs Payment) system. Another way to eliminate Settlement risk is to have a third party to hold collateral on the behalf of the Lender (Also called Tri party Collateral Agreement, discussed earlier)

### **Market and liquidity risk:**

Parties in a Collateral agreement are also prone to Market and liquidity risks. Margin calls are calls that are put forward to the party supplying collateral, to provide additional collateral, in case of a market downturn. However, if there is a significant fall in the markets, there will be a delay between calculating the valuation of the existing collateral (MTM) and the fall in prices. This might lead to the collateral valued far less in the market, than it is, as collateral. Also, changes in market trends (downgrading of collateralized security) might have an adverse effect on the collateral value. In the wake of giant companies signing for Chapter 11 bankruptcy almost without warning, lenders of cash are too late to realize that haircuts offered to securities were insufficient, or that particular securities should not have been eligible for collateral. A dynamic collateral management system that is very sensitive to market changes, and performs collateral runs frequently is less prone to such risks.

### **Concentration and Correlation risk:**

Concentration risk involves the portfolio value of the lender falling significantly in a market downturn, because the lender failed to diversify its collateral portfolio. There could be numerous cases, some highlighted below:

- Securities that belong to one particular issuer (Stocks issued by Lehman Brothers)
- Securities issued from one country only. (Mexico Govt. issued long term)
- Securities belonging to single asset type (e.g. Only Bonds)

In such cases, the lender might be directly affected, as he has not “diversified” his collateral portfolio. This kind of risk is called Concentration risk. This type of risk can be mitigated by using Concentration Limits. These are limits that are imposed on the collateral so that the lender reduces over-exposure to a particular asset.

### **Legal risk:**

For Cross border Collateral agreements, there might be different governing laws for each participant. This might create conflicts in case of an extreme market event. Another form of legal risk could be when the lender possesses securities of the defaulting company as Collateral; the lender might not have proper rights to the collateral in the event of a default. This further leads to legal complications.

# **ROLE OF TECHNOLOGY IN COLLATERAL MANAGEMENT SYSTEMS**

## **Integration with External systems**

A Collateral management system needs to be compatible and should provide for seamless integration with other downstream applications, like Order Management and trading systems, Risk management systems, and multiple vendor data feeds. The system should be centralized in order to process overall enterprise trading volumes pertaining to Collateral management, and enhanced volume of trades. The data transfer to different modules in the Collateral Management system should be smooth, even in cases of erratic volumes.

## **Scalability**

It has earlier been seen that Collateral volumes and agreements have both increased at a rate of around 40% per annum over the previous decade. Also, as seen from figure 3, Organizations have also evolved to more enhanced, better performing Collateral management techniques. As a result, Technology in Collateral Management systems has to be capable of handling increasing volumes as the collateral function and organization scales up.

## **Information efficiency**

In the current market conditions, every minute can make a difference, as far as valuations for Collateral is concerned. Technology should be enabled to improve the efficiency of information, so that market data is transformed swiftly, the collateral is marked-to-Market on time, and margin calls are made promptly, in a gyrating market.

## **Messaging standard**

Communication with counterparties is an important aspect of a Collateral Management System. Most of the parties involved in the Collateral Management process are either institutional Clients, or large investment banks. The communication standard used should be decodable by all these parties. The standards used commonly are SWIFT, FIX and FpML. However, FpML seems to be the favorite standard of choice among most organizations, as it does not need a network or specification of a transport mechanism. FpML enables counterparties to transfer information electronically in a format that allows the data to be read by other similar systems, thus improving communication between counterparties.

## **Technology**

A Collateral management system and its technology go hand in hand. A Collateral management system is quite complicated, as it needs to combine manual inputs from various sources, as well as feeds from market vendors, to allocate collateral, and make margin calls. The system should evolve with time, and should always reflect the most efficient and tried and trusted technology that is currently successful in the market and has a bright future.

### **Enterprise integration**

Enterprise Integration is a matter of Economies of Scope. In the past decade, many Collateral management systems were decentralized, 'silo-based' systems with function specific to the location, and business line. Nowadays, in the wake of increasing efficiencies and cross functional capabilities, companies have started a proactive initiative to integrate all functions of an organization. However, a successful execution of a Collateral management system requires an overall expertise an integrated firm and also diverse capabilities like Business operations, Enterprise risk management, custody, clearing and settlement, legal and documentation, among other capabilities.

## **BENEFITS TO THE PARTIES**

A lender and a borrower enter in a collateral agreement to benefit from its advantages. We shall demonstrate the benefits of entering into a collateral Agreement from a point of view of both the Lender and Borrower.

### **Lender**

#### **To reduce counterparty credit risk:**

When an institution enters into an agreement to lend cash or other types of funds, like a line of credit, it experiences some amount of credit risk. By securing this lending with assets as collateral, lending becomes much less risky.

#### **Enhanced Returns:**

An institution might lend some of its unutilized cash that it might not require in the near future, without the risk. Cash placed in a bank account draws limited interest. However, lending it to counterparty, in exchange for collateral would enhance the profitability of the idle cash.

#### **Product Innovation:**

Collateral Management allows financial institutions to be more flexible in structuring complex products, with greater risk parameters. A good Collateral Management programme greatly assists banks to trade with counterparties beyond regular credit limits, at the same time, maintaining balance sheet constraints and liquidity. This aspect can further be realized by re-hypothecating collateral to other parties.

#### **Enhanced return on capital:**

Generally, Lending parties need to set aside some capital as a provision for any potential losses that the company might incur during its lending process. However, in case of collateralization, the lender need not allocate provisions for the cash lent, as it holds collateral in exchange. This capital that might otherwise be used as provisions could be used to expand its business, hence improving the return on Capital.

### **Borrower**

#### **Access to Cheaper Funds:**

Cash obtained as a means of secured borrowing is much cheaper to the borrowing firm, than unsecured borrowing. The borrower effectively lends securities in exchange for funds. As a result, the lender does not need to calculate the probability of borrower



defaulting. The security put forward as collateral gives the lender a higher degree of comfort that the borrower will not default on his repayment.

**To free up credit lines with counterparties:**

In case of unsecured lending, a borrower might have a limit imposed to how much it could borrow from its counterparty. In the recent case of Credit crisis, where the banks are unwilling to lend money, and are in the process of eliminating credit lines, collateralized borrowing is very helpful. Lenders are always wary about the exposure that they are willing to take against their counterparty. A borrower could increase the amount it could borrow, if it provides collateral. Its credit line remains untouched, and increased borrowings would imply increased business for the Borrowing party.

## **RECENT ADVANCEMENTS & TRENDS IN COLLATERAL MANAGEMENT**

The end result of managing Collateral is to improve efficiencies of both counterparties, in the areas of better risk management, and enhanced return on capital invested. We have already seen the progress made in the last decade. However, innovative banks are looking for considerable ways to improve the existing system. Improvements in current systems will effectively lead to a decrease in allocating capital for operations, and lesser operational risk, as a result of automation. An effective Collateral Management system will also improve market relations, as greater number of firms will be able to adapt to Collateralization, which will eventually lead to greater market share. The growth in collateral management should concentrate on those key drivers, from which the greatest amount of benefit can be envisaged, to both parties in the agreement.

For a Collateral Management system, the main areas of improvement are in the following:

**Improved Technology for Collateral Management:**

As there has been a surge in volumes of Collateralized assets, the main area of improvement in Collateral Management systems is interface between systems. Systems need to be enabled with Straight-Through Processing (STP), to avoid manual intervention, hence reducing Operational risk to a minimum. Exception based Management, where the highest priority issues are handled first, should be auto-actioned. Items previously directed to a manual user, will need to be efficiently re-directed to the system for processing.

**Cross-product collateralisation**

As the decade has seen phenomenal growth in use of derivative instruments and other structured products, Cross Product Collateralization is another feature that is seen as an important trend in Collateral Management. Cross product Collateralization involves creating a Credit support vehicle that takes into consideration any type of transaction undertaken between the parties, and can be used to calculate collateral for the transaction. This is benefited by economies of scale for the company, and supports group-wide collateral management policies. However, this aspect is still to catch up, because, Cross Collateralization is very complicated, and dynamic in nature, because of introduction of new products in the marketplace, and needs accurate a standard documentation for the procedure.

### **Utilizing risk parameters used in the Market**

Banks engaging in collateral Management have looked at newer avenues to measure risk, to calculate the exposure and probability of the occurrence. These banks have now started analyzing the outlook that the Rating agencies provide, and calculate parameters like Probability of Default, loss Given Default and Exposure at Default (PD, LGD, and EAD respectively) so that the systems are more sensitive to changes in the marketplace. These days, Firms also use more complex correlation figures, to minimize the exposure to a particular risk type by rebalancing their risk portfolio to have contrasting correlations.

### **Outsourcing Collateral Management Solutions:**

Firms that do not have a core competence in Collateral Management systems will see a way to outsource the Collateral Management solutions, so that it could concentrate on its Core operations. This will lead to emergence of domain specific vendors in the area of Collateral Management. Since Collateral systems needs large amounts of investment, both in terms of time and money, some firms like hedge funds will be better off utilizing these funds into more productive ventures and outsourcing this non-core function. An added bonus would be that they could choose the best practices in technical expertise, by outsourcing to the appropriate vendor.

### **Rise of the Collateral Manager:**

In earlier days, there was no concept of a Collateral Manager; Collateral Management was usually undertaken by a back-office clerk who also performed the job of a Collateral Manager apart from his usual role. Previously, collateral management was decentralized, and each department would hold a separate collateral portfolio. Now, as centralization has transformed the Collateral process, the Collateral Manager is one of the most important members of the middle and back office team, as a heightened amount of responsibility and respect is being showered on the manager. It is expected, that in the future, his role is even more profound, because of constant changes and market volatility.



## CONCLUSION

Collateral Management has become an integral part of a financial organization. The volume of collateral exchanged has grown more than ten-fold over the past decade, which illustrates the popularity of the collateral concept. The changing landscape of the financial markets has impacted collateral management by making huge demands on the capabilities of managers and their systems. Collateral Management is instrumental in mitigating Counterparty credit risk, by exchanging collateral for cash borrowed. However, we have also seen that this might bring up some other types of risks, which can be mitigated with proper practices and an effective Collateral management system.

As the Financial markets evolve, increasing resources will be invested in a conscious effort to improve the efficiency of current Collateral Management system to handle the increased volumes and increase in number of firms planning to get involved in the Collateral Management process. To compete in the future, Companies will try to innovate methodologies, in an effort to gain a competitive edge over the other participants. Superior technological competencies along with state-of-the-art workflow, Straight-Through processing, cross asset collateralization and effective outsourcing of the Collateral Management process now offer firms, whatever their size or complexion, a cost-effective method to meet rising demands. Also, with increase in volumes, companies need to adopt better levels of understanding the system with improved responsiveness to operate in the volatile markets, and operational effectiveness to be achieved against a backdrop of increased reporting, and detailed system analysis. To compete with firms on a global scale, firms need to develop an in-depth understanding of functional aspects of collateral management, like exposures, margin calls and risk management procedures for collateral efficiency.

Market leading securities firms of tomorrow with global operations dealing in different multi-currency asset classes are constantly looking for improved techniques to leverage their complex operations. This initiative for continuous improvement not only provides the firm with a competitive advantage to win over competitors around the globe, but also assists in mitigating the overall risk of the organization. In today's dynamic economic conditions, a firm's superior risk management strategy might eventually turn out to be the differentiating factor in identifying tomorrow's winners.

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## ABOUT THE AUTHOR

Kartik Chandrashekar brings in about Five years of experience in domain specific consulting in the field of Collateral Management, Wealth Management, Custodial Services for Depository Clients, SWIFT Messaging services, Fund Performance & Analytics, and Reference Data. His involvement as a Senior Business Analyst has been in the area of Requirements Analysis, Functional documentation, Use case Modeling, Reverse Engineering of Code, system testing and overall service delivery experience in the Securities and Capital markets. Currently, Kartik is on an assignment for a premier Client in UK, analyzing and reengineering the Client's Global Collateral Management system. Kartik has an MBA in Finance from ICAI University, along with an Engineering degree, and is a CFA level • candidate.

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