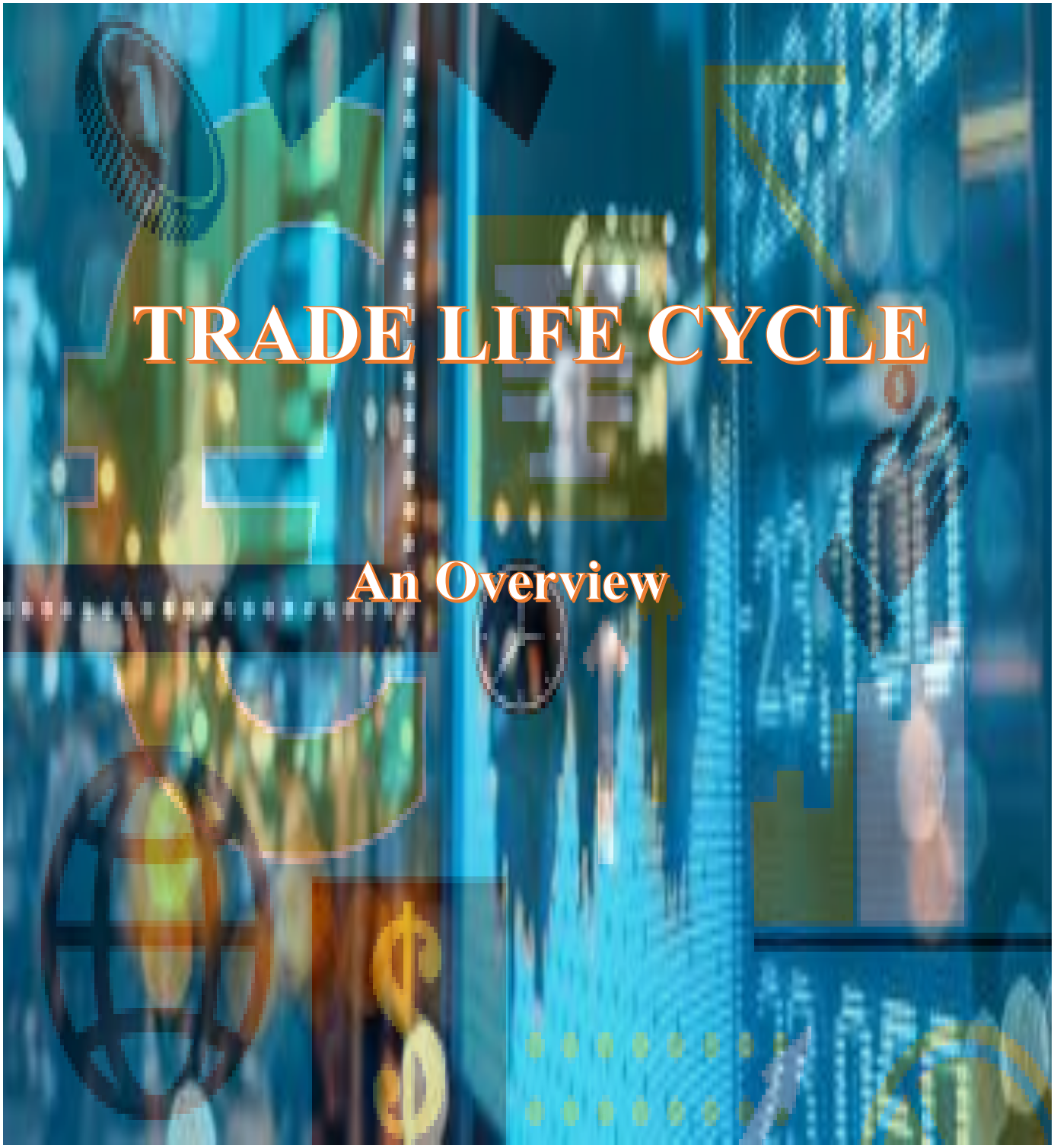

TRADE LIFE CYCLE

An Overview

Stratadigm

ideas that work

Careers › Banking • Financial Services • Insurance

1. The Trade Lifecycle

1.1 A High Level View

A high-level view of TLC involves many steps. Let us take a quick look, at what those steps are.

1.1.1 Client Onboarding

The first is client onboarding. Without a client, there will be no orders, no trades, no trade life cycle. This step covers what it takes, to open the account for a client.

1.1.2 Pre-Trade

As traders go on to trading terminals, to process client orders and to trade, there need to be an independent checks, on their activities. This is to be done, before the trader commits the organization. After the trade is done, it is too late!

1.1.3 Trade

The trade itself happens on trading terminals, and, trading venues. While this has nothing to do with operations, all the commitments that need to be fulfilled are made during the trade. Vital information, that will trigger payments, deliveries, accounting questions, and, answers, happen during the trade.

1.1.4 Pre-Trade, Post-Settlement

The post trade, pre settlement stage, involves all the steps essential to meeting commitments, arising from the trade. In some ways, this is the heart of the work, in managing the trade life cycle.

1.1.5 Settlement

Settlement brings completion, to the intention of a trade. Money, and, securities, actually moves hands. In the case of derivative trades, gains, or, losses are made, providing the hedge, or, the outcome of an intended speculation.

1.1.6 Post Settlement

If you have not accounted it, you will not know, whether you received everything you should have received. Or paid what was due. Or if anything is missing. Nor will you know, the outcome of all activity, during a period. Reconciliation, and, accounting, is important post settlement activities.

1.1.7 Lifecycle Events

Finally, some thing that is not a separate step, actually. So, we call them life cycle events. Risk Management, and, Corporate Actions, is events that cut across, the entire trade life cycle.

Let us go deep, into each of these steps, now. We first focus on Client Onboarding. When a client provides an account opening form it includes information and other supporting documents. Forms must be complete when submitted. Internal communication on this can be effective if short falls are clearly identified. If they are not complete, the account-opening officer needs to coordinate with various units such as Client Services, Compliance etc. to get the job done.

If a client triggers any of the Know-Your-Customer or anti money laundering screening criteria he/she should not progress as far as ‘account set-up’. This involves Checking and verification of

contact names using OFAC, Internal or External databases. If any negative profile names are found the account should be rejected for opening. Set-up in internal systems should be an outcome of data completeness and regulatory checks.

While on boarding is under way there is a need to be able to respond to enquiries regarding account opening, as relationship managers and clients may ask about the status of the account opening. As account set-up is completed it helps to ensure that forms and documents on record meet audit standards. Certain additional processes, which are not mandatory, can enhance the outcome of on boarding.

1.2 Client Onboarding

Clients may have stated requirements explicitly. For example, the client might have said:
"We need to make weekly payments to suppliers in China." The Client profile may provide a basis for estimating requirements. For example on learning that the client is a fund house the bank might say "As a bank we know exactly the kind of banking requirements a typical mutual fund has." If the bank knows the needs and transaction types, it is possible to anticipate the contracts and forms needed. The bank could then automatically pick and assemble the relevant set of contracts and forms based on the business rules.

To minimize errors and increase efficiency data fields in the additional forms & contracts can be pre-filled where available. Pre-fill and print contracts, agreements and forms (including bar-codes). This makes the account opening more robust. When the time comes to initiate transactions, there will be no hold up for any additional documentation!

1.3 Client Classification

Client Classification is an important requirement for assessing the suitability of a client and appropriateness of products offered on an ongoing basis. Clients must be classified at the time of onboarding. This is necessary to ensure that the products offered and sold to clients are appropriate for their profile.

The classifications are typically: RETAIL, PROFESSIONAL and MARKET COUNTERPARTIES

1.3.1 Retail:

Retail customers Generally speaking have no specific financial knowledge or experience. They are offered the maximum consumer protection of every kind, under the law: handle carefully

1.3.2 Professional:

Professionals May have either financial knowledge or experience or both; e.g. a typical employee of a large energy conglomerate in charge of hedging the organization's needs. Test carefully to ensure knowledge. Document your tests. The client is offered only some protection: handle carefully

1.3.3 Market Counterparties:

Large financial institutions, brokerages or other industry organizations. Such an organization has to look out for itself. In dealing with them we are entitled to assume they are aware of risks. It is no longer possible to take a client "sign off" that it understands all the risk factors. The Financial Service Provider has to ensure that the investor could have understood the risk factors.

1.4 Agreements for Trades

All trades require Agreements. Exchange Trades are carried out by clients on exchanges through brokers. OTC Trades are carried out between market counterparties.

1.4.1 Agreements: For Exchange Trades

All brokers have client agreements that bind the client to the rules of the exchange, through the broker. For Options, the Options Clearing Corporation requires a separate 'Options Booklet" to be signed by customers wishing to trade Options. Brokers must enter into agreements with the exchange they trade on.

1.4.2 Agreements for OTC Products

Every Counterparty requires one agreement for: Each Counterparty, Each Product. There are specialized agreements for each Product.

1.4.3 Globally Accepted Documentation Standards

- For Foreign Exchange Transactions: FXC: Fx and Currency Options Documentation Standards (Foreign Exchange Committee – NY FRB)
- For Derivative Transactions: ISDA Documentation Standards (International Swaps & Derivatives Association)
- For Bonds: SIFMA Master Documents (Securities Industry & Financial Markets Association)
- For Fixed Income Securities in the EU: Protocols of EPDA (European Primary Dealers Association). (This is an illustrative list of leading OTC masters and protocols. There are others too.)

1.4.4 Additional Agreements for Cleared Trades

The counterparties must have product agreements in between them. In addition, it is necessary to settle through the Central Clearing Counterparty. (This is mandatory for 'cleared products', particularly interest rate swaps and credit default swaps.

- Example: Product: Interest Rate Swap. It is mandatorily to be cleared. Counterparties: JPMC & BankAm. CCP: LCH.Clearnet
  - BankAm and JPMC must have an ISDA Master Agreement with each other and related Schedule for IRS.
  - Both need to have an agreement with LCH.Clearnet for Clearing.

1.5 Pre-Trade Analytics

1.5.1 Pre-Trade Analytics

The standard checks carried out in this step are: The party with whom a trade is being contemplated should have appropriate risk rating and limits with MyBank

- The party should have documentation with MyBank
- The documentation should cover the Product contemplated.
- The specific person should be authorized to trade.
- The price at which trade is being attempted should be "in" the market
  - within the day high and low
  - within expected range of prices in the day

1.6 Order Management

1.6.1 Order Management System

An Order Management System takes in orders from clients and pipelines them to the trading platform. An order is received by the broker. On the order management system the first check is the Securities Master Database. Using this the Symbol and price for that security are verified. In systems that is how securities are traded. Not by name but by their symbols. On the Customer Database the Customer account details and Transaction authority are verified. The order is then pipelined to the Point of execution

'Point of Execution" is a generic term to describe a place where an order can be executed and thus become a trade.

- Trading Venues
- Liquidity Platform
- Liquidity Venue
- Dark Pool

All refer to a place where the trade could be executed.

1.6.2 Trade Platforms

At the point of execution we see various Trade Platforms. The first option is to Place the Order on a Public Exchange. Then comes the option to Place the Order on a Private Exchange. The broker-dealer could also execute the trade against its own Proprietary book. Finally, the broker could Search for the best trading opportunity across a universe of private liquidity pools (private exchanges) NYSE, CME, NASDAQ are examples of public exchanges.

This private markets are Called by various terminologies: "Alternate Trading Systems" (ATS) / Multi-lateral Trading Facility (MTF) / Electronic Commerce Network (ECN) "GFI-SEF"; "Fx-Connect are examples of such platforms. Executing for oneself by the broker involves a Buy if customer is selling. A Sell if customer is buying. This process of keeping the order with itself by fulfilling it from its resources is called "Systematic Internalization".

Finally, finding trading opportunities with the order is achieved by using software that is called a "Crossing Network. Computer based trading and Algorithmic trading are advanced versions of this.

1.7 The Trade

The trade happens when on the trading screen, a buyer and seller finding matching rates accept the quantity offered / taken. In a simplified fashion it may look like this: This trade is going to happen for a 100 units of the product (whichever it might be, equity, fixed income, futures contracts etc.) at 1.9905 per unit trade.

1.8 Trade Capture

- The trade is first recorded on the electronic platform where completed. It generates a CONFIRMATION.
- The trade is ALSO recorded in mid/ back-office based on the Front Office record (known as "blotter").
- The trade is marked as AFFIRMED after the counterparty accepts MyBank's outgoing confirmation. (Or we accept the other party's incoming confirmation.)
- Trade Capture ensures the transaction is correctly captured in the Back-office systems of MyBank in accounting terms.

1.8.1 Trade Review & Validation

The Trade as Recorded in the System is validated. The Middle Office carries out this process.
The questions asked by the Middle office are:

- Is the Trade within policy?
- Is it within Risk limits?
- Is it within credit limits for the counterparty?
- Trade data: is it complete?
- Is the price in the market range?

1.8.2 Risk Limits

- MyBank will NOT want to run risk in excess of limits set for EACH product:
- Counterparty Credit Risk
- Settlement Risk
- Market Risk
- These limits are set by the Risk Department and monitored by the Middle Office.

1.9 Front Office Back Office Reconciliation

1.9.1 Differing Sources of the Same Information Must Match

We looked at these 3 sources of information. One is from an external source. Another is from the Front office. One more is the counterparty's Back Office, which is an external source.

A second internal source is the trade capture in our internal systems. Before any external affirmations, reconciliations, internal 'front to back' reconciliation is crucial to make sure that all internal sources accurately match each other. In the event there is a MISMATCH the trade will be referred back to FO and they must resolve and correct the trade as input into the FO system or provide a correction with suitable management approval for any Profit / Loss impact. External Reconciliation is an essential step in responding to confirmations received from an external counterparty. This involves matching all the information in internal systems with the confirmation received from the external source.

1.10 Confirmations

1.10.1 Confirmations: in the OTC space

In OTC Trades, given the inherent risks, confirmations become even more important owing to:
Scope for dispute. The need for clear availability of settlement related information. In Keeping with the nature of OTC Trades every party to a trade generates its own confirmations.

- Outgoing Confirmations: The party sending this out attempts to be the first to place its understanding of the trade that was done. Typically, the confirmation will state that unless rebutted within a certain number of days, this confirmation is taken as final.

- Incoming Confirmations: The party receiving such a confirmation must ensure that the document is properly checked and that it is agreement. If it is not, then it must record its disagreement straightaway.

1.10.2 Confirmations: in OTC markets, where Brokers are involved, the Market Practice

When a deal is transacted through a broker it is often the practice not to send a confirmation to the broker: although a confirmation must still be sent to the counterparty to the trade in the usual way. The Broker sends Confirmations to both parties. Best practice requires that Both parties should check it carefully a Confirmation is Not required to be sent by the counterparty to its broker. Counterparties would still exchange Confirmations directly. Each party ought to carefully check the incoming Confirmation. In the event of dispute the availability or otherwise of confirmations would have legal implications.

1.10.3 The Confirmation Process/ SWIFT

The Society for Worldwide Interbank Financial Telecommunications is an electronic system for communication between banks – sending confirmations, payment and delivery instructions, statements etc. It is owned by a consortium of bank.

- Confirmation formats in SWIFT
    - MT 300 for Foreign exchange and 'Non-Deliverabl Forwards confirmations
    - MT 305 for Foreign exchange option confirmations
    - MT 320 Money Market loan or deposit confirmations
    - MT 330 Call money confirmations
    - MT 340 for FRA confirmations
    - MT 360 for IRS confirmations
    - MT 361 are for Currency Swap confirmations

1.10.4 Confirmations: In an Exchange Trade

When a buyer buys, the order is 'written' into the Trading Platform of the exchange which is a central server. Corresponding to the buy, a seller has sold; which too is written into the server
The confirmation generated by the exchange is a print of the same record on the central server.

1.11 Affirmation of Confirmations

The affirmation of a confirmation involves the process by which each party must Match EACH Key Field of the Incoming Confirmation with the one sent out. If all Key Fields Match, it will be said that the Confirmation is OK. That OK is the AFFIRMATION. We should understand it as 'Affirmation of a Confirmation' as there is another situation which is also called Affirmation. Once an affirmation is made, the Trade becomes a legal obligation for both parties.

1.11.1 Resolution of Differences: Backoffice Could Give a Variety of Responses

- Don't Know / Mismatch
  Back Office must immediately send out a DK (Don't Know) : if no information of the trade is found. Or a report of mismatch.

Operations (Back Office) sends the discrepant Trade to Dealer/ Front Office. Traders / Dealers resolve the difference among themselves and AMEND the Trade as needed – and resubmit for the Confirmation process.

Best practiceds in this matter are: Matching EACH Key Field.Highlight Mismatches.Chase down Don't knows. Failure to respond promptly can make it difficult to resolve these issues. For instance, if the dealer has to cancel a trade, it could be at an unfavorable rate. The sooner the reversal is done, the loss from the reversal could be limited and affordable. After a length of time, reversals could be expensive.

1.11.2 It Is Important To Confirm EACH Trade- Here Is Why:

One Payment Combines several trades. In the example given here there are 3 transaction require a pay and two which require a receive. All 5 are In respect of ONE product settlement for which the payment is being made. One payment matches SEVERAL trades. IF any one trade is wrongly captured, the payment to be made will not match the amount expected to be received by the other counterparty.

1.11.3 Automation of Confirmation Process

Both parties to a trade could log on to a Confirmation Matching Service using connectivity from a platform like swift. Such services Generate the outcomes of a typical confirmation process: Affirmation, Don't Knows or Mismatches. These are Automatically generated based on standard rules / Key Fields

Some of the BRAND NAMES that offer such services and their product names are given below

- Bloomberg's: CMS/PROactive
- Smartstream's: Corona
- Sungard's: Intellimatch

1.12 Pre Settlement Advice

This is a Middle Office process that ensures both parties agree amounts before initiating settlement processes. One party Sends information of amount to be tendered or paid in settlement BEFORE settlement date. The other party must respond with an "Agree". Without this, no payment will be initiated.

1.13 Standard Settlement Instructions

1.13.1 Standard Settlement Instructions – Key Aspects

- It contains Information related to settlement. This information Must be accurate & complete enough for the settlement to go through smoothly.
- SSI must support Straight Through Processing- STP. It must include the Unique Identifiers allow transactions to flow smoothly, electronically.
- SSI's must by definition be Unvarying. If it varies for every transaction it is NOT static. Should be relatively constant for a counterparty. Yet, It is possible to Amend an SSI.
- An SSI must be Secure & Authentic. SSI leads to a mindset that says "in place". So – security and authenticity is crucial.

1.13.2 Standard Settlement Instructions – Information completeness

Since in Fx and Cash settlement of Derivatives only a transfer of funds is required, the CORE payment information is the following, which needs to form part of the SSI

- Account no: 9876543
- With: MyBank
- SWIFT Address MYBAGBxx
- Nostro Account no: 741852
- Nostro Bank Fedwire Routing No. 99887766554
- Nostro Bank SWIFT Address: MYBANYxx
- Securities Account

In transactions related to FX, since Nostro and currency accounts are currency specific, CURRENCY is another information to be included in the SSI. In transactions related to Securities, Security Account is another information to be included in the SSI.

1.13.3 Standard Settlement Instructions – Key Identifiers

- BIC or SWIFTBIC is an essential address in SWIFT for messaging using SWIFT this is essential.
- IBAN uniquely identifies
    - A person's account
    - With a particular bank
    - In a particular country

Excellent for STP because numerical identification of an account / account holder is software friendly. But is EU specific

- Routing Numbers / Sort Codes: These numbers help effectively utilize a country's Large Value Payment System.

1.13.4 Standard Settlement Instructions – How set up

SSI is intended for regular counterparties; in regular currencies dealt with them; or regular trade-types dealt with them. SSIs for not set up for counterparties with whom trades are infrequent. SSIs are set up for Regular Counterparties. Even with them the set up is for the Regular types of trade. These are Fit cases for the used of SSI

SSIs can be and are AMENDED. It happens when:

- Counterparty changes its banker
- Counterparty sets up new arrangements, separating its bankers using one for each product or counterparty
- There are Changes in contact details
- The Bank itself undergoes changes: account details, address etc.
- There is a Change in Correspondent *[Intermediary]* Bank details
- There is Any other reason

ALL SSIs have a valid FROM date. Likewise, AMENDS have a FROM effective date.

1.13.5 Standard Settlement Instructions – Secure & Authentic

USE secure communication means like SWIFT to send SSIs outward or indeed receive them.
MT 670 & 671 in SWIFT is for purpose for SSIs. Validate the SSI by seeking reconfirmation by independent callback at authorized contact details and numbers; not seeking authorization from the original sender. Since SSIs are considered safe and regular – it is all the more important that security and authenticity are given importance.

1.14 Settlement: In Exchange Trades

We look at the same topic in different perspectives to ensure a comprehensive understanding of this process. Let us take a look at the settlement on stock exchanges in a simple manner

1.14.1 Clearing

The first step is clearing. We have an example in which the buyer has bought 1000 shares of Apple Inc. at $ 405 a share. The buyer's broker will debit the buyer with $ 405,000. The seller's broker will Debit the Seller's securities account with 1000 shares of Apple. The buyers broker will Pay In or Settle: $ 405,000 to the clearing corporation.

The sellers broker will Pay In or Settle: 1000 shares of apple to the clearing corporation. Clearing will succeed only when the Pay in of Buyers matches the Pay in of Sellers: in our example, the obligations do match up. The number of shares settled by the seller match what the buyer expects. The dollars settled by the buyer match what the buyer expects.

1.14.2 Settlement

Settlement can be carried out since the clearing settled amounts will meet the requirements of all counterparties to the trade. The clearing corporation will Pay Out / Settle: 1,000 Apple Shares to the buyer's broker. Pay Out / settle: $ 405,000 to the seller's broker. The buyer's broker will Credit the Buyer's Securities Account with 1000 shares of Apple. The sellers broker will Credit the Seller's Bank Account with $ 405,000

1.14.3 The Clearing & Settlement Process

Here is one more perspective on exchange based settlements. Again we start from the beginning. The primary relationship of the exchange is with brokers playing the role of clearing members. Each of these can be classified into either Net Buyers – those that bought a particular security; or net sellers – those who sold a particular security. This is on a net basis (the total of buyers minus sellers.) It should be clear that net buyers have to pay money. Net sellers have to deliver securities. All clearing members have bank accounts and securities accounts from which they deliver and receive securities or money, as needed. The exchange downloads trade obligations to the brokers. Each broker reconfirms its obligations. In an all electronic and integrated exchange, the possibilities for any mismatches are minimal.

In clearing sellers settle in securities and buyers settle in cash. At this stage a final computation is made to ensure that all funds and securities received in 'Pay-In' are adequate to meet obligations if settlement is carried out. In settlement sellers receive cash and buyers receive securities. Depositories separately intimate Clearing Members of inflows so that the concerned brokers are in turn intimated. Banks separately intimate Clearing Members of inflows so that the concerned brokers are in turn intimated. As far as the exchange/clearing corporation is concerned the cycle ends with credit to the broker. Broker's responsibility to onward credit the client is a separate matter.

This perspective is based on the national securities clearing corporation and the Depository trust corporation presentation of clearing and settlement:

- Investors send orders to broker/dealers to buy or sell securities.
- The broker/dealers send the order for execution to an exchange or marketplace. .
- The trade is made with another broker/dealer or specialist on an exchange or marketplace.
- Trade information is sent by the exchange or marketplace to NSCC for post-trade processing.
- NSCC processes and records trades, and issues to broker/ dealers a summary of all compared or recorded trades, including information on net securities positions and net money to be settled.
- NSCC sends instructions to DTC with net securities positions to be settled As deliveries are processed, net money to be settled is posted to NSCC's settlement system.
- DTC transfers ownership of securities electronically, moving net securities positions from the selling broker's account to NSCC's account, and then from NSCC's account to the buying broker's account.
- Broker/dealers' settling banks end or receive funds to/from DTC (as NSCC's agent) to complete settlement, at which time all securities movements become final.

The investment manager, acting on behalf of an institutional investor, instructs a broker/dealer to buy (or sell) a large block of a security. The broker/dealers send the order for execution to an exchange or marketplace. Trade Takes Place. Omgeo's automated systems send and receive trade data, enrich trades with standing settlement instructions, provide central matching services and maintain contact with all major trading and settling parties and DTC regarding trade details.

The custodian bank receives instructions from the investment manager, or from Omgeo on behalf of the investment manager, to deliver /receive the securities and money payment. For affirmed/matched trades, Omgeo instructs DTC (on behalf of the investment manager and the broker) to settle the trade between the custodian and the broker

1.15 Margining

To provide context to Clearing with Central Clearing Counterparties

1.15.1 Traders can lose money on Derivatives trades

Who is more likely to default: a buyer or a seller? One who could lose is a potential defaulter so s/he need not pay for losses made. This can happen to both buyers as well as sellers. Therefore both parties to a trade need to place margins. The CCP holds margin accounts from both counterparties to cover potential losses. The derivatives trade losses (on settlement or mark-to-market days) can be debited to the margin account, thereby providing settlement guarantee.

1.15.2 Making & Losing Money in Derivatives

Once a trade has been initiated the trader makes or loses money as the market prices move.
A trader Buys one contract on Gold at $1,560/-. If markets go to $ 1,570/- he is a gainer. If markets go to $ 1,550/- he is a loser. A trader that makes losses find its margin account balance has gone down. Conversely, if he makes gains the margin account swells. The use of Central Clearing Counterparties ensures that a loser cannot default on payments due.

1.15.3 CCP Operation

Both parties place margins with the CCP. Trade Obligations (Settlements) are debited to this margin account. Remember if one person is losing the other is gaining. Therefore only one of the two margin accounts will be debited at a settlement or a mark to market date. The CCP can guarantee trade settlement by a market participant only so long as it maintains margins. Margins have to be topped up regularly as they deplete for losses incurred.

1.16 Reconciliation

1.16.1 Reconciliation I

We have looked at reconciliation during the trade lifecycle as well. We now look at this process specifically.

1.16.2 Same TRADE DATA recorded and viewed in different systems

The need for reconciliation arises due to the Same TRADE DATA being recorded and viewed in different systems. Since it is the same data, it should be identical. But because different people capture it at different times, there can be differences. In the trading system the Trade Data is input by the Front Office. The dealers. In the Accounting System, Middle and Back Office personnel input Trade Data.

Do they match, as they relate to the same trade or trades? The Securities Account reflects the actual holding of the firm. Similarly, the bank account reflects the actual cash balance of the firm. Is the movement of securities and cash caused by the Trade correctly reflected as movements in these accounts? This is the question that reconciliation seeks to answer. Let us look at some of the situations that require reconciliation.

1.16.3 Mirroring the Books of a Counter party

The Account of Counter party A, In B's Books should fully match. The Account of Counterparty B, In A's Books. SPECIFICALLY, what B thinks is receivable from A, should be considered by A, as due to B, as well. And vice versa.

1.16.4 Reconciliation of Accounts between Counterparties

The reason for differences between the accounts is because of incomplete accounting on one or both the sides. Let us take the starting point as Balance due to us as per our books. The counterparty might have made payments and we might not have passed accounting entries for the amount received. Similarly, the other party might have recorded amounts due from us, which we have not accounted. Both these go to reduce the amount we think is due to us.

Then comes the entry relating to that which represents 'Dues to us' recorded by us not recorded by the counterparty. We might also have made Payments recorded by us but not recorded by the Counterparty. The impact of both these is to increase the amount due to us. When we make these four categories of adjustments, we can reconcile our balance in the accounts to the balance in the other party's books.

The preparation of such a statement is a mere first step in the reconciliation process.
The goal of a reconciliation process is to match the balances between the two sets of books.
And know item-wise the causes for difference. Once the causes for differences are known, the required accounting entries need to be passed.
The causes listed should be acceptable from a control point of view. They need to be of recent vintage. This means trades cause the differences from yesterday or last week; not from trades done last year!

1.16.5 Resolution

Here is how those situations are resolved.

- If Payments made' are recorded by the counterparty and not recorded by us. We should ask for evidence of the payment; and locate it in our bank account; if it is found, we should pass the matching entry in our accounts. If not, we need to convince the counterparty that payment made by them was not to us.

- If 'Dues from us' were recorded by the counterparty and not recorded by us. 'Find the transaction reference which relates to this trade; and pass the matching entry; or show the counterparty that the trade does not relate to us

- If 'Dues to us' recorded by us but not recorded by The counterparty Provide transaction references to the counterparty and have entries passed by it; Or else be convinced that we made the error and reverse our entries

- If 'Payments made' by us are recorded by us and not recorded by the counterparty provide evidence of payments made- have counterparty record the same; else correct our books. We may have made the payment to someone else. Correct the entry and show the payment against correct counterparty. If these items are not resolved on time, Receivables might not be collected; or we may end up paying what is not really due by us. Interest claims for delayed settlements is another cost/ loss dimension.

1.16.6 Reconciliation II

The other reconciliation situation to consider is. Do the balances in the securities account, and bank account, match up, with what we expect to see, in those accounts? In a properly matched set of books, what the accounts show, will match with the balances at the bank, and the depository accurately.

1.16.7 Reconciling Balances between Internal Books and Bank/ Securities Accounts

As with the previous example, there are movements in the bank, and securities account , which are not accounted by us. OR, there are movements we expected to see, and accounted for, which have not happened, in the bank, or securities account.

The Balance in the Bank, or Security Account, as per our books should be reduced, by the Amounts debited to our account, by the bank, or depository. It should also be reduced, by the Amounts accounted by us, as 'received', but not actually seen, in the account. 'Amounts deposited into our account, not intimated to us. Will increase the balance. Similarly Charges, and deductions, accounted by us, not seen in our account, will also increase the balance.

The final result will reflect, the Actual Balance in the Bank, or Security Account. The preparation of such a statement is a mere first step, in the reconciliation process. The goal of a reconciliation process is to match the balances, between the two sets of books. And know, item-wise, the causes for difference. The causes should be acceptable, and, of recent vintage.

1.16.8 Resolution

Here is how, the various causes for differences, are resolved. For 'Amounts debited to our account, by the bank, or depository. Ask for the Debit Advice, and if valid, pass matching entries, in our book. Else, have the bank, or depository, reverse the wrong debit, to our account. For Amounts accounted by us, as 'received' but not actually seen in the account. Follow up with the remitter, the bank or, the depository, for giving effect to the credit we want to see. Else, if proven to be unrecoverable, or wrong, reverse the entry, in our books. Amounts deposited into our account, not intimated to us. Seek the Credit Advice, and, pass a matching entry, in our book. Else, have the bank reverse the wrong credit, into our account. Charges and deductions, accounted by us, not seen in our account by itself, this is an unlikely situation. Usually, one would not follow up for charges to be made: unless proven, and the need to account on accrual basis.

1.16.9 Reconciliation III

The reconciliation process, involves multiple steps. As it involves comparing data, in different systems, the first step is to get the data. Then the data is stored, while it waits processing. Next, the data is compared, and matched. Data that does not match, is flagged off, and marked, as an Exception. It needs to be further analyzed. The reconciliation is complete, if there are no mismatches. A report needs to be generated, showing the outcome, of the reconciliation process.

- Getting data
  The reconciliation process, requires two or more data sources. Data is obtained from these sources, and can involve a number of steps, such as mapping and transformation, to make the records comparable.

- Store Data
  The data from each source is stored separately. The stored data may be used, several times during the reconciliation, matching process.

- Compare and Match
  This, is the core part of the reconciliation, and is usually supported, by a system with workflow capabilities. Records from the two data sources are compared, using a set of data elements, called 'key data'. Rules for determining a match, is also defined and applied.

- Identify, and Flag, Exceptions
  Records that do not match are flagged as exceptions. Exceptions are investigated, and resolved. This part of the process is usually an integral part, of the above workflow.

- Reconciliation is complete, when all records are matched, and all exceptions are investigated, and resolved.

- Detailed, and Summary Reports are produced for review, and management.

1.17 Accounting

1.17.1 The GENERAL LEDGER Accounts, and their positions, in Financial Reporting

Accounting as a function, records the financial impact, of transactions. The four broad categories to be considered, from a typical financial accounting, and reporting perspective, are: Income, Expense, Assets and, Liabilities. The two sides of a Balance Sheet will always match. So, too will the impact of each entry, tally exactly. Let's observe, how the entries reflect this 'balance'.
We will now consider some accounting entries, for typical securities transactions.

- Situation 1:
  A trade to Buy is executed. 10 units at 100 dollars a unit. The moment this trade is completed, the securities are due inward, payment for the securities, in settlement, is due outward.

- Situation 2: the Trade is settled, on Settlement Date. Securities receivable, is squared off, and the securities are fully reflected, in the balance sheet , on the assets side. The settlement amount due, is squared off. Cash goes out, in settlement.

- Situation 3: Margin Paid, at Trade Initiation: $ 50. This is exactly how a derivatives trade, begins. The margin is an asset. It is repayable, if no losses are booked.

- Situation 4: Mark-to-Market Gain, of $ 50. This gain is categorized, as unrealised. (it is realised, only if the position is closed, with a gain). The gain is recognized, but categorized as unrealised. If the gain was drawn in cash, then the cash balance goes up.

- Situation 5: the Position is closed, at a net gain of $ 25. $ 50 gain was paid previously. From that, the position is down by $ 25. This, is shown below.

The unrealized gain is squared off. The Final, realised gain, is accounted for. The margin account is closed, and, cash released back, as the position is now closed. The final situation we consider is: Securities that were previously bought $ 1000 sold for $ 1200; a gain of $ 200. The securities account is squared off, as it is sold. Cash of $ 1200, is received. The extra $ 200, is the gain, accounted separately. This is a realized gain, as the position is now closed. It was closed at a profit. That profit ,is not going to reverse, as it is encashed and the position is closed.