

Trade Lifecycle

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Welcome to an overview of Trade Lifecycle, part of the BNY Mellon Client Training Program for Asset Owners. I'm Nitesh Pai and I'm excited to walk you through the five key stages of trade lifecycle.

In this session, we will cover the five stages of the trade lifecycle: Pre-Trade, Trade Execution, Trade Clearing, Trade Settlement, and the final stage of Position and Risk Management.

Some of the key takeaways from this training is to have an improved understanding of the different stages and the processes that support the trade lifecycle. Trading is much more than two counterparties engaging in a transaction and a very extensive and careful process is implemented before, during and after the trade. The ability of the market participants and systems to interoperate seamlessly drives the success for achieving higher settlement rates.

Before we understand the trade lifecycle, let's try and learn "What is a trade?" For many people, a trade simply refers to the moment that two counterparties - the buyer and seller - engage in a transaction, such as the exchange of cash for the bond or equity trade or the exchange of two currencies in the case of an FX trade.

In reality, for a trade to take place, significant planning and follow-up is required. Therefore, having a deeper understanding of the entire trade lifecycle is important for investors and other parties that engage in trading, and also for institutions, such as banks and brokers that facilitate the trading. Trade lifecycle refers to the sequence of events that occurs and the processes that are implemented when a trade takes place.

One of the key elements of the pre-trade stage is the process of client onboarding. This is by which an institution establishes a relationship with a new client. Once a client is in the system, the institution is in a position to facilitate the execution of trades on behalf of that client.

Pre-trade preparation for an institution includes the development of systems, processes, and protocols to ensure that all trading facilitated through the institution complies with relevant laws and regulatory requirements. Data related to all trading and the trade lifecycle is captured and preserved. Appropriate legal agreements such as the ISDA documentation for OTC derivative trades are executed to set out the underlying terms and basis of trades. Counterparty credit risk is understood to ensure the suitability of counterparties. Appropriate collateral is collected and managed. Risks associated with positions are understood and managed. Appropriate controls are put into practice throughout the trade lifecycle.

Let's understand the second stage of Trade Execution.

Once a client has been enrolled in an institution's system, the institution, with proper client authority could trade on behalf of that client. It is pertinent to have client instructions and clients must communicate and authorize the institution to place orders on its behalf.

A client's or Institutions' motivation for trading could be, but not limited to, the need for cash, the need to hedge a position, the need to diversify its portfolio or the desire to monetize a view, such as the view that a specific stock will increase in value.

The nature of a trade order can also vary. Some orders require that trading takes place at a specific price while other orders do not. Some orders placed in the market may be executed immediately while others may be executed upon a specified price level being met. Some orders may require that trading takes place within a certain amount of time while others do not.

The institution then works to execute the trade and inform its clients of its execution. Trades may be executed not only on exchanges, but also off-venue or over the counter.

The third stage of the trade lifecycle is Trade Clearing. During this stage, an extensive clearing and settlement process is implemented to finalize the trade. Trade Clearing can be defined as the process to which counterparties to the trade and their agents determine and verify the exact details of the transaction and prepare for settlement. When a trade is executed, the agreed transaction does not complete immediately. We can distinguish between three dates associated with a trade.

The Trade Date is the date that the counterparties agree to trade. While the counterparties agree to trade on this date, the exchange of cash for securities, or the exchange of currencies in the case of an FX trade, does not actually take place on this date. Instead, the exchange takes place at a specified future date depending on the underlying product and the market.

Value date is the date that the counterparties to the trade are contractually obliged to exchange cash for securities, or one currency for another in the case of an FX trade. Please note that while the counterparties are contractually obliged to engage in the exchange on value date, they may fail to do so in practice.

Settlement Date is the date that the counterparties actually exchange cash for securities. It may differ from the intended settlement date. If a trade does not settle on the date that it was contractually scheduled to take place, then a fail settlement has occurred.

The implementation of the trade clearing process can be broken into six simple steps.

The first step of Trade Capture refers to an institution's initial recording of executed trades. Only basic information is initially captured, such as the underlying asset, currency, price, amount, quantity, trade date and time.

Trade Enrichment refers to the process of applying additional information to the trade to facilitate processing of the subsequent stages of the trade lifecycle. The type of data included in the trade enrichment stage includes the value date, security identifiers, legal details, and detailed counterparty information.

In Trade Validation, an institution will conduct a final check on the information gathered in relation to the trade. The validation process provides the institution with an opportunity to identify and rectify problems before communicating with other entities to the trade.

Step four. Trade Confirmation and Affirmation. Trade confirmation is a process by which trade details are verified and agreed between the direct participants to a trade, for example, between two institutions that are both trading on behalf of their clients.

Trade affirmation is the process where trade details are verified and agreed between the direct and indirect participants to a trade, for example, it could be between an institution trading on behalf of a client and the client itself.

Trade Reporting refers to the reporting of the trade transaction using an approved reporting mechanism.

The final step of Settlement Instructions that takes place is the preparation of settlement instructions.

Trade Settlement is the next step after trade clearing.

It refers to the completion of the agreed-upon transaction. It's a very crucial stage as it represents the actual exchange of value; therefore it requires careful management, protocols, and safeguarding controls. Broadly, there are two types of settlement methods:

- Delivery-versus-Payment, or DvP
DvP refers to settlement whereby securities are only delivered if payment is made and payment is only made if securities are delivered. For example, if a trade involves the purchase of shares of a stock, then both cash and shares are exchanged simultaneously. Receive-versus-Payment or RvP works in the exact way as DvP.
- The second settlement method is Free-of-Payment (short for FOP).
FOP refers to settlement whereby the delivery of the securities and payment of funds take place separately. This form of settlement is risky for the counterparty that delivers first as the other counterparty may fail to deliver, for whatsoever reasons.

The last stage of the trade lifecycle is Position & Risk Management.

Throughout the trade lifecycle, there is a requirement for ongoing position and risk management, which would be the management of the numerous positions that an institution holds in its portfolio, often refers to as the trading book. Some examples of position and risk management activities include managing corporate actions, managing counterparty credit risk, measuring profit and loss, trade in cash reconciliations, measuring risk and sensitivity, and preparing internal and external reports.

To summarize, trading is much more than two counterparties engaging in a transaction. An extensive and careful process needs to be implemented by all parties involved before, during, and after the trade.

This diagram illustrates the trade lifecycle and key participants in a trade, using a perfect settlement scenario to illustrate.

The buyer, or the client, communicates to the institution to execute a trade on its behalf. Examples of such institutions are hedge funds, financial institutions that can trade on behalf of the clients or themselves. Let's assume a trade order for buying 50 shares at \$1 per share of Orange Inc. is agreed and placed with an executing broker. The executing broker might find a seller or could also be doing this in its own capacity. This is the trade execution stage and the broker sends back confirmation of the trade. This can also include multiple allocations that some clients require.

During the trade clearing stage, the trade is captured, enriched and validated by both institutions and sent for matching, confirmation and allocation. There are industry utilities like Central Trade Matching (CTM) that provide the matching services to its clients.

Once a trade is matched, the instructions are sent to the respective custodians with whom they have cash and securities accounts. In a T+2 settlement cycle, it would be optimal for clients to instruct their trades to the custodians by the end of trade date to allow more time for settlement processes and avoid trade failure. Custodians can also utilize the services of a sub-custodian that provide them with local market coverage and expertise. Custodians have their own systems and processes for trade capture, enrichment and validation once they are instructed by their clients. Some custodians also offer value added services of pre-matching with the executing brokers to help ensure timely settlement.

In a Delivery versus Payment scenario, on settlement date, the payment of \$50 is made into the sellers' custodian account and simultaneously the shares are moved into the custodian account of the buyer. The custodians provide intraday and end of day updates on trade statuses and balances through swift reporting or any other agreed delivery channels. This allows all parties to account for the cash and stock movements in and out of their accounts and completes the lifecycle of a trade.

I hope you will find this training session useful and gain a better understanding of the entire trade lifecycle.

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