1. Participants in the order execution chain

When investors place buy, sell, subscription, redemption or repayment orders for a financial instrument, their execution will involve a chain of participants. This chain begins with an intermediary close to the market, known as a securities dealer or trader, receiving the order, and ends when the transaction is settled between the parties to the transaction.

The aim of this section is to describe the key participants in the chain, from order execution to the clearing of transactions. Transaction settlement is covered in a special chapter.

1.1 Investors

Investors can be:

- private or institutional customers who manage their own assets; these are generally deposited with a financial institution which is authorised to held the customer's assets in custody;
- wealth managers who manage the portfolios of private or institutional customers as part of a management mandate;
- managers of investment funds, or any other collective investment vehicle, who manage portfolio assets according to the specific investment objectives and constraints defined in the issuing prospectus.

In this chapter, any investor who places an investment order with a securities dealer will be referred to as a "customer".

1.2 Professional securities dealers

Professional securities dealers are people or financial institutions who, on their own account or on behalf of third parties:

- buy and sell securities on the secondary market in a professional capacity[1];
- offer securities to the public on the primary market;
- create securities and offer them to the public (derivatives, structured products).

To be able to offer this type of service, these professionals must be authorised by the regulator in the country where they operate. This authorisation guarantees investors a certain level of transparency and fairness when concluding transactions in financial instruments.

In the United States, it is mainly the rules of the Securities Exchange Act of 1934 that apply. Authorisation is given by the SEC, a government body, which is also responsible for checking that the financial institution complies with the regulations at all times.

[1] The thresholds above which a person is considered to be trading professionally are determined by the regulations in each country.

In addition to the SEC, the Financial Industry Regulatory Authority (FINRA[2]) is a private corporation which acts as a self-regulatory organisation in the United States by regulating its members through the adoption and introduction of rules which govern their activities. This corporation also acts as a mediation and arbitration body for any conflicts which arise between its members and their customers. This means that the parties can avoid having to go straight to the courts.

In Switzerland, it is primarily the Federal Securities Exchanges and Securities Trading Act – SESTA (*Loi fédérale sur les bourses et le commerce des valeurs mobilières – LBVM*), the Ordinance of the Federal Council to the Federal Act on Securities Exchanges and Securities Trading – SESTO (*Ordonnance sur les bourses et le commerce des valeurs mobilières OBVM*) and the Ordinance of the Swiss Financial Market Supervisory Authority (FINMA) to the Federal Act on Securities Exchanges and Securities Trading – SESTO-FINMA (*Ordonnance de l'Autorité fédérale de surveillance des marchés financiers sur les bourses et le commerce des valeurs mobilières – OBVM-FINMA*) which govern securities dealing. FINMA is responsible for the supervision of securities dealers.

In general, the authorities supervise the financial markets which grant authorisation for professional securities dealing.

To obtain this authorisation, the individuals or financial institutions concerned must have a suitable organisation, adequate capital and professional expertise. They must also act with complete integrity.

Each supervisory authority is free to set its own criteria for obtaining authorisation. For example, the supervisory authority can decide on the amount of capital necessary to carry out this activity. It can also require staff involved in securities dealing to sit professional examinations. In terms of organisation, it can insist that dealers have a risk management and control department which is separate from the dealing side of the business.

In practice, securities dealers are mainly:

- the depositories of customers, such as banks or any other financial institution authorised to hold in custody the assets of third parties and which offer a securities dealing service;
- brokers[3],
- dealers,
- brokers/dealers,
- prime brokers,
- transfer agents.

1.2.1 Brokers

A **broker** is a person or financial institution dealing in securities professionally on behalf of third parties. This term is legally defined by the Securities Exchange Act of 1934, but is also widely used by financial operators to refer to this type of activity. In the United Kingdom, the law uses the word 'intermediary' when referring to a brokerage activity.

[2] FINRA replaced the National Association of Securities Dealers (NASD). For more information about this corporation, visit www.finra.org.

[3] The French translation for this is 'courtier'. Nevertheless, this word is seldom used by participants. The term 'broker' is used in all languages to refer to this type of intermediary.

The main source of remuneration for a broker comes from the commission received for executing customers' orders. In other words, the more orders there are, the higher the broker's revenue will be.

In order to attract orders, brokers generally have a team of financial analysts whose task it is to analyse companies and to make investment recommendations. This research is generally available free of charge to the broker's customers. In actual fact, the aim is not to receive payment for this research, but to generate orders from the recommendations.

The amount of commission paid to a broker depends on the financial instrument traded, the transaction amount, the market, the method used to forward the orders, and so on.

Brokers can specialise in financial instruments, geographic regions or business sectors, which is why customers often employ the services of several brokers for their investments.

1.2.2 Dealers

A **dealer** is a person or financial institution who buys and sells securities professionally on the own account, through a broker or otherwise. The dealer concept is legally defined by the Securities Exchange Act of 1934, but is also widely used by financial operators to refer to this type of activity.

Dealers can be categorised by the market risk they are exposed to in their various activities. Bear in mind that the market risk is the risk linked to a change in market variables, such as interest rates, exchange rates, share price, volatility, and so on.

These activities are:

- matched trading,
- market making,
- positioning,
- speculative and proprietary trading.

I) Matched trading

In matched trading, a position is immediately taken with another counterparty which is the exact opposite to the one taken by the dealer when executing an order of the dealer's customers. For example, if the dealer has bought securities from a customer, the dealer will immediately sell them on to another counterparty[4].

This activity limits the market risk generated by a proprietary position, provided that the customer or the dealer's other counterparty does not default. In effect, with this activity, the dealer is exposed to a counterparty risk on both sides of the transaction. If one of the parties should default, the dealer may incur a financial loss since the dealer has to reinitiate the transaction in order to counterbalance the dealer's position under new conditions.

[4] This counterparty can be another customer, a broker, a dealer or execution on the market.

If the financial instrument traded requires the use of a valuation model, for example for derivative or structured products, the dealer risks making a valuation error when dealing with the customer. In fact, if the model is incomplete, if the assumptions are unrealistic, if the data used as a basis for the model are incorrect, or if the mathematical functions underlying the model contain errors, the dealer risks selling the financial instrument at too low a price or buying it at too high a price using the dealer's valuation model.

In financial jargon, participants tend to call this type of risk 'model risk'. In matched trading, this risk is limited since a valuation error on one side will be counterbalanced by the same error on the other side.

Matched trading thus requires the dealer not to have any exposure to market risk[5] when dealing with the dealer's customers. It is important therefore that the risk control department ensures that the employees responsible for this activity respect this risk policy at all times and immediately report any anomalies concerning this exposure to their line manager.

In this context, the financial institution is exposed to a 'control risk' through this activity. In effect, apart from the other operational risks which the financial institution is exposed to, it is important that risk control ensures that there are no fraudulent transactions. A malicious employee could, for example, simulate a transaction with a counterparty in order to offset the exposure taken when dealing with customers, leaving the financial institution exposed to a hidden market risk.

In this activity, the dealer earns money from the bid-ask spread, in other words the price difference between the buyer's side and the seller's side.

II) Market making

In financial jargon, the term 'dealer' is often associated with the term 'market maker'. However, as we mentioned earlier, this is not always the case.

A market maker is a dealer who offers quotes for an equity instrument on the market, usually on a continual basis. By offering these quotes, the market maker is willing to buy (sell) a certain quantity of the quoted financial instrument at the official bid (ask) price without having to counterbalance immediately the exposure resulting from a transaction[6].

With this activity, the dealer accumulates positions during the day according to the exposure limits defined by the financial institution's market risk policy. However, these positions must be liquidated at the end of the day so that the financial institution is not exposed to the market risk overnight.

The risk control objective is to ensure that the exposure taken by the market maker is within the limits set by the board of directors or by senior management. The financial institution thus has a control risk.

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5 Apart from the risk of default by one of the counterparties.

6 Nevertheless, academic research into the formation of the bid-ask spread by market makers recognises that the size of this spread depends on the exposure of the market maker offering the quotation.

Unlike the matched trading activity, the financial institution is exposed to a model risk with the market making activity when the quoted financial instrument requires the use of a valuation model. Effectively, because the market maker is willing to buy or sell the financial instrument at the quoted prices, an arbitrager[7] could take advantage of a valuation error to place a trade with the market maker.

In addition to these risks, the financial institution also faces a liquidity risk. This risk is linked to the financial institution's inability to liquidate its positions at the market price due to a lack of depth [8] or a sudden collapse of the market.

Note that the existence of market makers on the market is one of the factors that improves the liquidity of a financial instrument, since these participants can respond immediately to the transaction demands of investors.

However, it should be noted that this argument is only valid in 'normal' market conditions. It is often found in fact that during a period of high uncertainty and market volatility, financial institutions which usually offer a market making service simply 'disappear' from the market or widen their spread considerably in order to discourage investors from dealing with them.

As with the matched trading activity, the remuneration of the market making activity comes from the bid-ask spread quoted by the market maker, but only if the latter buys and sells the same quantity at the quoted prices.

Since it is highly unlikely that the market maker can profit continually from this strategy, the market maker's remuneration tends to come from the difference between the average selling price and the average buying price of the position traded. By definition, this remuneration is realised.

If the market forces the market maker to hold a position at the end of the day, this must be revalued at the 'market price' or at 'fair value'.

This revaluation takes place at 'market price' when the financial instrument is traded on an organised market or has a continual listing on an over-the-counter (OTC) market[9]. In this case, the price used for the revaluation process is the price obtained at the close of trading in the financial instrument. The gain or loss resulting from this revaluation is by definition unrealised.

If it is not possible to obtain a market price for the financial instrument, for example when revaluing an exotic derivative or structured credit product, the position of the market maker is revalued according to the 'fair value' principle using a valuation model. In these conditions, it is imperative that it is the risk control department, or another department which is separate from the market maker, which carries out the revaluation of the financial instrument in order to minimise the operational risks linked to this valuation method, such as the risk of fraud for example.

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7 An arbitrage strategy is defined as a strategy which allows money to be earned without taking any risk and with no upfront cost.

8 The concept of market depth is defined later on.

9 The concepts of organised and OTC markets are defined later on.

III) Positioning

Positioning consists of entering into a transaction with a customer without balancing it by dealing with another counterparty. The financial institution engages in this activity for several reasons.

The first is to allow the financial institution continually to have a certain quantity of the financial instrument in order to be able to satisfy immediately and at all times the transaction demands of its customers.

The second reason has to do with the large transactions that the financial institution is required to carry out with its customers. Effectively, depending on the financial instrument and the market conditions, the financial institution is usually obliged to settle the position taken with its customers by splitting it into several smaller transactions in order to preserve its anonymity on the market and to benefit from more favourable prices with counterparties.

The third reason stems from the small transactions which the financial institution is required to carry out with its customers. The financial institution's aim is to consolidate all transactions carried out with customers in order to counterbalance the overall position by making a single transaction on the market at a price which is economically advantageous to it.

Unlike market making, the positions resulting from the positioning activity can be held for several trading days in accordance with the financial institution's risk policy.

As with matched trading, the financial institution earns money from this activity on the difference between the average selling price and the average buying price. To generate this profit, the financial institution takes the same types of risk as those taken with the market making activity. If there are positions outstanding at the end of the day, these must be revalued according to the same principles as those described earlier.

IV) Speculative and proprietary trading

Unlike other dealing activities, speculative trading and proprietary trading by a dealer are not initiated in response to customers' trading requirements. The financial institution generally engages in this type of activity for the sole purpose of taking positions in financial instruments in order to increase its profits.

The market risk policy established by the board of directors or senior management of the financial institution must therefore clearly define:

- the financial instruments involved in this exposure;
- the permitted strategies for these financial instruments;
- the exposure limits for each market risk factor[10];
- the overall exposure limits and stop-loss limits for the market risk;
- the method and models used to assess the market risk;
- the checks to be carried out, their frequency, the person assigned to perform these checks, the procedure for informing line managers if anomalies are detected, etc.

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10 Market risk factors include interest rates, exchange rates, volatility, liquidity, equity prices, etc.

The limits for market risk exposure must be set according to the economic situation and the market conditions. They must therefore be periodically reviewed. This exposure must also be consistent with the financial institution's resources, in other words:

- its capital,
- the expertise of its staff (front office and support),
- its systems.

The strategies and related risks[11] must be fully understood by members of the management and board of directors.

Checks must be carried out by individuals other than the employees who take positions on behalf of the institution. Depending on the extent of this exposure, a risk control department must be specifically assigned to perform these checks. This department must be separate from the risk management department, which is responsible for identifying risks, proposing methods/models for risk assessment, transfer or management, and so on.

The financial institution earns money from this type of activity on the profits it generates with its strategies.

A financial institution can therefore engage in this type of activity to:

- increase its experience and expertise in a financial instrument or market in order to satisfy the trading needs of its customers;
- diversify or transfer the associated risks to its other positions; for example, a dealer can take positions in interest rate derivatives in order to transfer the interest rate risk of an exposure resulting from the financial institution's positioning activity.

1.2.3 Broker/dealer

A broker/dealer is a person or financial institution who carries out securities transactions professionally on behalf of third parties and for the broker's/dealer's own account.

The activities, remuneration and associated risks are the same as those described for each function separately.

Note that in Japan, a broker/dealer is referred to as a 'securities company'[12].

1.2.4 Prime broker

A prime broker is a financial institution that offers integrated services to customers to satisfy their investment needs. Contrary to what the name suggests, financial institutions that offer prime brokerage services generally are also dealers.

[11] Including the model risk.

[12] Not to be confused with a company whose sole business is to invest in other companies.

The main services offered[13] by a prime broker are:

- funding for customers' positions, either through cash loans or through securities lending,
- securities lending,
- clearing[14] of customers' transactions,
- securities custody and related services (e.g. valuation of positions, processing of corporate actions, reporting, etc.),
- brokerage and dealing,
- liquidity management.

In addition to these services, the prime broker may provide operational support for relations with third-party brokers/dealers, the leasing of commercial premises, dedicated risk management and control for the customer's positions, etc.

Demand for this type of service mainly comes from hedge fund companies and professional investors who need to borrow cash or securities to settle their transactions.

The prime broker earns money from commission or spreads on transactions carried out with customers, the interest received on cash loans and securities lending, commission on positions deposited by the customer, its clearing service, liquidity management or other services offered to customers.

1.2.5 Transfer agent

The transfer agent is an active player in the execution of subscription and redemption orders for investment fund units.

It is therefore responsible for processing subscriptions, repurchase and conversion requests for investment fund units. It confirms the identity of unit holders and the origin of the cash invested by them as part of the fight against money laundering and monitors the inflow of cash. It keeps a register of fund unit holders and is responsible for any transfer of holdings (e.g. in the event of a unit holder's death, pledging of units, donation of units, etc.). At the same time, it is responsible for monitoring transactions and for identifying any suspect or criminal transactions (e.g. non-compliance with cut-off times for order reception, arbitrage between markets and unit price, insider trading). It also oversees the publication of statements, reports, confirmation and other documents intended for unit holders of the investment fund.

1.3 The market

The market for a financial instrument is the 'place' where customer orders are traded and executed; in other words, the confluence point for supply and demand.

Participants generally use special terms when referring to the market of supply and demand. The criteria generally used to define a market are:

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[13] Some of these services, such as clearing, securities lending or brokerage/dealing, are only offered to certain financial instruments and/or markets.

[14] Clearing is described in a special section of this chapter.

