

CHAPTER 1

FINANCIAL MARKETS AND INSTITUTIONS

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a financial market. Understanding the main types of securities traded between participants and how they are issued to raise capital builds a picture of how an efficient market serves both capital-raising bodies and investors.

Participants operate in a market governed by regulations (such as the UK listing rules), legal considerations (such as the principal–agent problem) and administrative processes such as clearing and settlement.

Financial markets are constantly evolving and it is important to understand how established trading venues operate, such as the London Stock Exchange, as well as alternative trading venues, such as dark pools.

This chapter gives a broad introduction to the functions served by financial markets and a detailed discussion of key market features, processes and trading venues.

Banks, insurance companies, pension funds, savers and other participants in the UK financial services industry all play their own part in allocating capital within the UK and the global economy. This chapter describes how financial markets and the key participants operating within them function.

Bank deposits made by individuals, loans made by banks, portfolios held by insurance companies and capital raised by companies issuing equities and bonds all have a role within



CHAPTER 1 SECTION 1

INTRODUCTION TO FINANCIAL MARKETS

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Explain the functions of the financial services industry in allocating capital within the global economy.
- Explain the role and impact of the main financial institutions.
- Explain the role of government, including economic and industrial policy, regulation, taxation and social welfare.

1. THE FINANCIAL SERVICES INDUSTRY

1.1.1 Explain the functions of the financial services industry in allocating capital within the global economy

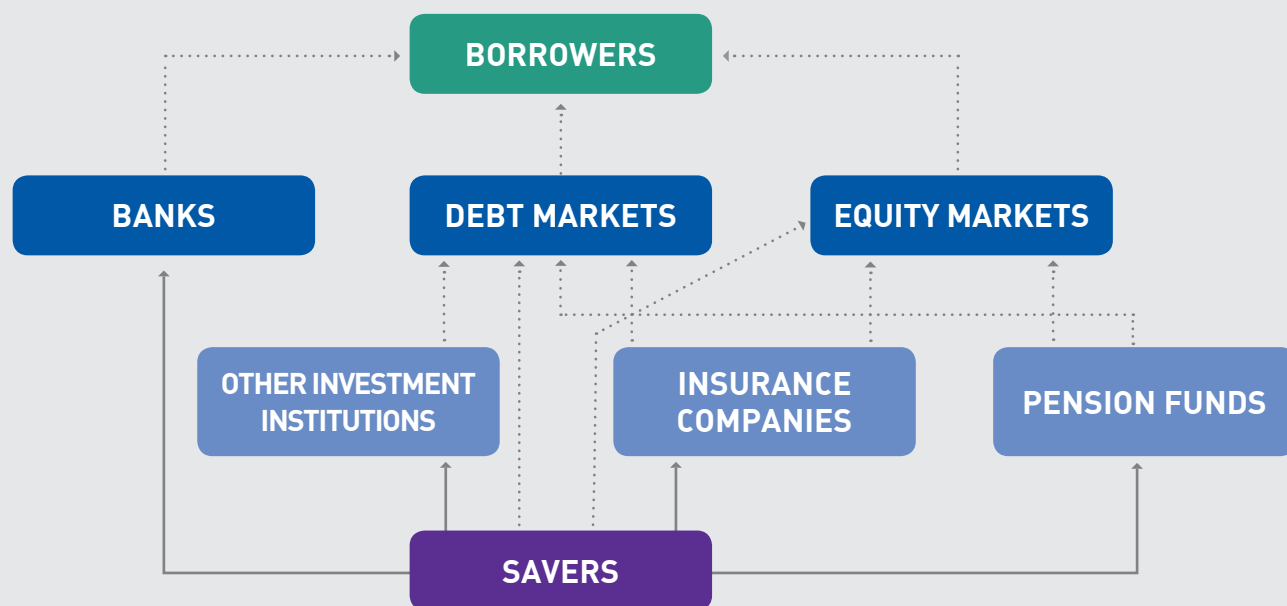
The financial services industry provides four main functions in an economy:

1. Financial intermediation. A financial system provides channels for funds to move from savers to borrowers. Intermediaries significantly reduce information and transaction costs by:

- providing services and products that allow savers to become investors;
- ensuring the adequate provision of information; and
- allowing borrowers to access a range of savers that can meet a variety of terms.

Figure 1.1 illustrates some of the main flows that occur in a financial system. Savers can supply funds directly by holding the debt and equity securities issued by borrowers (the dotted lines in Figure 1.1) or they can supply funds via an intermediary, such as a bank or investment institution (the unbroken lines). Direct financing through capital markets is sometimes appropriate, although most forms of capital-raising and capital-saving involve intermediaries.

FIGURE 1.1: CAPITAL FLOWS



Banks and other credit institutions, such as building societies, have traditionally been a key source of finance for individuals, companies and other borrowers, and a vehicle through which individuals save. They also perform an intermediation function and, increasingly, the banking sector uses the securities markets to raise capital or to invest in those markets.

Insurance companies, pension funds and other investment institutions or vehicles (such as open-ended investment companies (OEICs) and unit trusts) also perform an intermediation function. Investment companies purchase the securitised assets of banks.

2. Pooling and managing risk. The financial services industry provides mechanisms that efficiently manage risk. Pooled investment products allow multiple savers to invest in a wider variety of investments than they would be able to individually, which reduces each individual's overall risk exposure. Insurance allows individuals and companies to transfer a risk exposure to an insurance company in return for a premium. Finally, derivatives, such as options and futures, allow investors to manage their risk exposures.

3. Payments and settlement services. The financial system means money and other financial assets can be managed, transmitted and received. Banks are the main providers of payment systems that allow money to be exchanged and debts to be settled. Settlement services are provided by clearing houses to ensure that buyers and sellers of securities complete a transaction. Clearing houses are discussed in more detail in section 4.

4. Portfolio management. Lastly, the financial system allows investors to manage their wealth by offering access to markets, specialist advice and investment management services. Investment advice and investment management are the two main services provided by the investment industry, and are the focus of this volume of the Official Training Manual.

2. THE MAIN FINANCIAL INSTITUTIONS

1.1.2 Explain the role and impact of the main financial institutions

A **central bank** is a financial institution involved in setting the monetary framework within which financial organisations operate (see chapter 9, section 3 for more on monetary policy and central banks). This typically requires the central bank to set short-term interest rates to meet an inflation target. In addition, the central bank will act as lender of last resort to the banking sector supplying liquidity during times of crisis.

Financial intermediation involves financial institutions facilitating the transfer of funds between surplus and deficit agents. Surplus agents are typically households, and deficit agents are those who need to borrow, primarily firms and governments. A wide variety of financial institutions act as intermediaries, including deposit institutions and investment institutions.

Deposit institutions accept deposits from economic agents. The deposits become liabilities of these institutions, which lend funds as direct loans or investments. Deposit institutions include commercial banks and building societies. However, the banking sector contains different types of banks, such as universal banks, which offer financial services as well as traditional deposit and lending facilities, and investment banks, which act as brokers, underwriters and advisers. Like banks, savings institutions also accept deposits and make loans, although they usually operate under different rules to banks.

Investment institutions invest the funds they raise in tradable securities such as bonds and equities. Investment institutions include insurance companies that offer protection against unwanted events. Life insurance concerns death, illness and retirement policies, and general insurance involves loss or damage to property, homes, vehicles, etc. The different nature of life and general insurance is reflected in their investment strategies:

- Life insurance policies tend to cover longer periods and so insurers tend to hold long-term assets.
- General insurance companies usually hold shorter-term assets, reflecting their greater need for immediate cash.

Pension funds are now significant institutional investors in many countries, especially with falling State pension payments and ageing populations.

Many of these institutions operate in the global financial system. A company in one country may choose to list on the stock market in another country in order to raise capital in a market with different characteristics. Companies can also raise capital across borders by issuing bonds in another country (see section 7). This means that investment by savers and capital-raising by firms has a global dimension. The gradual removal of capital controls by individual nation states and the globalisation of the world economy have contributed to the phenomena of global capital flows.

3. THE ROLE OF GOVERNMENT

1.1.3 Explain the role of government, including economic and industrial policy, regulation, taxation and social welfare

Broadly speaking, governments perform four functions:

1. Providing services that private firms are either unwilling or not allowed to provide. This is often referred to as ‘market failure’ and examples include defence, law and order, and maintenance of certain infrastructure. Government policy may involve grants and subsidies to promote certain issues for which the market may not be satisfactorily addressing (e.g. ‘green’ activities), or for which the market does not punish externalities (e.g. carbon taxes).

2. Regulating firms and markets, principally to protect the consumer. This includes regulation to promote competition, prevent fraud, etc. Governments can also regulate markets by restricting

entry to it and enforcing rules to govern participants' behaviour. In the UK, the Financial Conduct Authority (FCA), the Prudential Regulation Authority (PRA) and the Financial Policy Committee (FPC) are the main regulatory bodies for financial services. These organisations and their remits are covered in chapter 3.

3. Intervening in the distribution of income generated by private market transactions in order to conform to some criterion of equity, for example, a minimum wage guarantee. Redistribution of income and wealth is also a policy of most governments, and this is often achieved through transfer payments to households – for example, state benefit payments. Taxation is also used to achieve a better distribution of income among the population.

4. Stabilising the economy by attempting to reduce fluctuations in income and employment, and to control movements in the general price level. In many economies today, emphasis is placed on controlling inflation by using interest rates. In the UK, this is carried out by the Bank of England's Monetary Policy Committee (MPC).

CHAPTER 1 SECTION 2

THE ROLE OF SECURITIES MARKETS IN PROVIDING LIQUIDITY AND PRICE TRANSPARENCY

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Differentiate between a financial security and a real asset.
 - Identify the key features of: an ordinary share, a bond, a derivative contract, a unit in a pooled fund, and a foreign exchange transaction.
 - Identify the functions of securities markets in providing price transparency and liquidity.
 - Identify the reasons why liquidity and price transparency are thought to be important for the efficient allocation of capital costs when trading in securities markets.
 - Calculate round trip transaction costs incorporating bid-ask spreads, dealing commission and transaction taxes, both in percentages and in absolute amounts.
- Identify the types of securities and the market conditions where price transparency, liquidity and depth are likely to be high/low.
 - Identify the most important differences in transaction costs between UK and non-UK equities, fixed-income securities, different categories of pooled funds derivatives, property and different categories of alternative investments.
 - Identify, explain and calculate transaction costs associated with dealing in: UK equities, fixed-income securities, derivatives and alternative investments.
 - Define liquidity risk and identify why it is important.

1. TYPES OF INVESTMENTS

1.2.1 Differentiate between a financial security and a real asset

1.2.2 Identify the key features of: an ordinary share, a bond, a derivative contract, a unit in a pooled fund, and a foreign exchange transaction

One of the main functions of the financial services industry is to provide a link between savers with funds to invest (also referred to as lenders or investors) and borrowers that need funds.

The main lenders in an economy are households – generally, households have a surplus of income after spending. The main borrowers in an economy are typically companies and governments. Direct lending between lenders and borrowers is uncommon, although the growth of peer-to-peer lending has provided some impetus to this type of lending. More commonly, households lend/invest their savings indirectly in a range of assets through intermediaries.

Real assets and financial securities

Assets have value and include **real assets** and **financial assets**. Real assets are physical assets such as land, buildings and gold. Financial assets are claims representing the right to some return (such as a bank deposit or a bond) or to ownership of physical assets. For example, a share represents ownership in a company and gives the shareholder rights to some of that company's assets and earnings. We can categorise these two different types of financial assets as debt and equity:

- **Debt claims** are loans made by lenders to borrowers. Lenders expect borrowers to repay the loan and to make interest payments until it is repaid. A simple example is a bank deposit, which may pay a fixed or variable rate of interest over a term. A bank deposit represents a claim the lender has on the bank and is not tradable. Most debt claims are tradable and one example of a tradable debt is a bond. A tradable claim is also referred to as a security. Bonds are issued by governments and companies and generally pay a fixed rate of interest, and as such they are often referred to as fixed-income securities.
- **Equity securities** are also called shares. Like bonds, they are tradable securities. Shareholders have an ownership stake in the company they have invested in. The company has no obligation either to repay the money invested by the shareholders or to make regular payments, known as dividends. However, investors who buy shares expect to make a return by selling their shares at a higher price than they bought them and, possibly, by receiving dividends.

Indirect investment through intermediaries

Savers generally invest in shares and bonds indirectly through intermediaries, such as insurance companies, pension funds and pooled investment vehicles. Savers therefore invest in the products created by intermediaries. The advantage of indirect investment is a reduction in risk due to:

- greater diversification;
- reduced transaction costs as the intermediary can trade at lower cost than the individual saver;

- access to specialist expertise in the financial assets being invested in; and
- the ability to invest in assets that would not be available to an individual investor, such as commercial property.

A unit trust that specialises in UK equities is an example of a pooled investment vehicle. These vehicles are known as ‘open ended’; when investors want to invest, the fund issues new units in exchange for cash paid by the investor. When existing investors want to withdraw, the fund redeems (repurchases) their units and pays out cash. The fund can therefore grow or shrink according to demand for its units. The fund manager invests the cash in UK shares and, if the fund is well managed and the value of UK equities increase, the value of the units in the fund will increase. Unit trusts and other investment vehicles are covered in chapter 16.

Investment intermediaries also use derivative contracts to manage risk. A derivative is a financial contract ‘derived’ from an underlying asset in such a way that the price movements of the derivative and the underlying asset will be highly correlated over time. Derivative contracts can be used in a variety of ways:

- To speculate, i.e. make gains from anticipated movements in the price of an index or asset.
- If the underlying asset is difficult to buy or has high costs associated with investing in it. For example, buying oil directly is expensive, but purchasing a derivative contract is less costly.

Derivatives are covered in chapter 13.

Foreign exchange market transactions

A foreign exchange market transaction may occur where, for example, a UK-based fund manager wants to purchase US securities. To achieve this, the manager will need to convert pounds sterling into US dollars. This transaction will be carried out in the foreign exchange markets (also referred to as the currency markets). For large value transactions, the purchase of dollars for pounds may take place directly with a dealer. The dealer will quote bid-and-offer prices representing the prices they buy and sell dollars in relation to pounds. For smaller value transactions, the purchase of dollars will take place with a broker who will arrange for the dollars to be purchased. Chapter 9, section 4 examines the foreign exchange market in more detail.

2. THE FUNCTIONS OF SECURITIES MARKETS

1.2.3 Identify the functions of securities markets in providing price transparency and liquidity

Securities are traded in securities markets that bring buyers and sellers of financial securities together. A distinction is generally made between money markets, for securities that have maturity shorter than a year, and capital markets, for securities that have maturity longer than a year.

Together, securities markets perform a number of important functions:

1. Raising capital (in the capital markets). A firm can raise capital by issuing equities (ordinary shares) or bonds (corporate bonds). The funds raised can be used to purchase new machinery or other resources that enable the firm to grow. The other essential part of this process, facilitated by markets, is the mobilisation of savings. The liquidity provided by markets encourages savers to purchase the claims issued by borrowers. This leads to a greater flow of savings into productive investment.

2. Transferring risk (in the derivatives markets). A fund manager can use derivatives to hedge the risk that the value of an equity portfolio may fall by using equity index futures contracts. The fund manager has obtained protection against the risk, but the risk has not disappeared – it has been transferred to the counterparty of the derivative contract. The counterparty would be a trader who expected the equity index to rise in the future and would buy futures contracts to take advantage of that expectation.

3. Price discovery. The orders placed by buyers and sellers in a market leads to the emergence of a price at which both buyers and sellers can agree to trade. In dynamic markets, such as the equity markets, this process takes place continuously while the market is open. If a market is efficient (see chapter 15, section 4) then the equilibrium price will change only when new information arrives in the market.

4. Creating liquidity. Securities markets enable investors who hold investments to sell (liquidate) them. The ability to sell investments quickly makes them more attractive to hold and encourages investors to buy them in the first place. Liquidity in a financial market is typically defined as the ability to sell a security without causing a significant movement in its price and with minimum loss of value. A liquid market is therefore one in which there are many buyers and sellers. A seller is more likely to sell at a price they wish to sell at if there are many buyers willing to trade at the same time.

Primary and secondary markets

One important distinction is between primary and secondary markets:

1. Primary markets are those where securities are initially sold to investors. For example, a company may raise capital by issuing new ordinary shares in order to raise capital. Where this is the first issue into the markets, the company is said to be making an initial public offering (IPO).

2. Secondary markets are where any subsequent trading of shares takes place.

The secondary market plays an important role in providing liquidity to investors. This liquidity provision makes it more likely that issuers of securities can make the first issue to raise capital, and may even increase the price by which the securities are initially sold.

Another feature is whether a trader is on the **sell-side** or the **buy-side**. Sell-side firms – such as investment banks, brokers and dealers – primarily provide transaction services and investment products. Buy-side firms – investment managers – purchase these services and products.

This classification scheme is not easily applied to many large integrated firms, because many investment banks have divisions or wholly-owned subsidiaries that provide asset management services. These functions are on the buy-side, even though investment banks are sell-side.

A further distinction exists between quote-driven and order-driven markets, and this is discussed in section 3.

3. PRICE TRANSPARENCY AND LIQUIDITY

- 1.2.4 Identify the reasons why liquidity and price transparency are thought to be important for the efficient allocation of capital when trading in securities markets
- 1.2.6 Identify the types of securities and the market conditions where price transparency, liquidity and depth are likely to be high/low
- 1.2.9 Define liquidity risk and identify why it is important

Price transparency

As well as determining the equilibrium price, markets also disseminate that price to the public.

There are two types of price dissemination:

- A market is **pre-trade transparent** if it publishes real-time data about quotes and orders.
- A market is **post-trade transparent** if it publishes trade prices and sizes shortly after trades occur.

Buy-side traders value transparency because it allows them to better manage their trading, understand market values and estimate potential transaction costs. Sell-side traders, however, prefer to trade in opaque markets because, as frequent traders, they have an informational advantage over counterparties. Organised markets, such as the London Stock Exchange, tend to be more transparent than an over-the-counter (OTC) market, such as the market for credit default swaps. In Europe, pre- and post-trade transparency for many securities (especially equities) is required under the Markets in Financial Instruments Directive (MiFID).

Liquidity

Many investors assess a market's liquidity by looking at bid–ask spreads. Bid–ask spreads tend to be wider in opaque markets because finding the best available price is harder for traders. Transparency reduces bid–ask spreads, which benefits investors. In order-driven markets, liquidity can be judged by the difference between the best buy and sell prices in the order book.

A market may also be considered liquid if there are a lot of ready-and-willing buyers and sellers. This is related to market depth that is a measure of the size of order that is needed to move the market (have an impact on price) by a certain amount. Therefore, a deep stock market would have a sufficient volume of pending orders on both the bid and ask side, preventing a large order from significantly moving the price. An example of a deeply liquid market is the US Treasuries market:

the large volume of transactions, low bid–ask spreads and high depth (low market impact of a trade) make transaction costs very low.

An illiquid asset will be difficult to sell because of uncertainty about its future market value or if there is a lack of market depth. Infrequently traded shares, such as some of the shares traded on AIM are relatively illiquid. During periods of market uncertainty, when most securities are falling in value, those securities may become difficult to sell, as most traders will have similar pessimistic expectations about the future value of those securities.

Investors tend to demand a higher return on securities with low liquidity to compensate for the risk that it may be difficult to sell quickly. Liquidity risk – the risk of not being able to sell quickly with the potential for loss of value – is generally priced in the security. Liquidity risk therefore tends to be higher in low volume markets and emerging markets.

Well-functioning financial markets that are transparent and liquid provide significant benefits to traders, borrowers and society as a whole. Markets in which trades are easy to arrange with low transaction costs are operationally efficient. Such markets have small bid–ask spreads and can absorb large orders without substantial impact on prices. This will encourage traders to trade and in turn encourage savers to invest their funds in claims issued by borrowers, therefore increasing the flow of capital to productive uses in the economy.

An important by-product of operational efficiency is informational efficiency where trading leads to asset prices reflecting all relevant information about the value of the asset. Informational efficiency is enhanced by price transparency. Where all investors have access to good quality, timely information about securities, then the prices of those securities are more likely to reflect fundamental information about value. If prices reflect the fundamental value of those securities, then investors will direct funds to those securities yielding the highest returns. In well-functioning markets, the highest returns are likely to be earned on securities issued by firms investing in the most productive assets. Thus, funds will be allocated to the most productive uses in society (i.e. there is greater allocative efficiency).

4. TRANSACTION COSTS

- 1.2.5 Calculate round trip transaction costs incorporating bid–ask spreads, dealing commission and transaction taxes, both in percentages and in absolute amounts
- 1.2.7 Identify the most important differences in transaction costs between UK and non-UK equities, fixed income securities, different categories of pooled funds derivatives, property and different categories of alternative investments.
- 1.2.8 Identify, explain and calculate transaction costs associated with dealing in: UK equities, fixed income securities, derivatives and alternative investments.

The cost of trading clearly imposes a drag on the performance of an investment. Trading costs are a critical ingredient to any investment strategy, and can make the difference between a successful portfolio and an unsuccessful one. There are some investors who operate under the

misconception that the only cost of trading is the explicit brokerage commission that they pay when they buy or sell assets. However, they also incur other implicit trading costs that generally make the commission cost pale into insignificance. These implicit costs are:

- **The bid–ask spread.** This is set by the dealer in order to cover their own costs and make a profit. The dealer's costs include processing the order and holding stock. Smaller, riskier and less liquid (less frequently traded) stocks generally carry a larger spread.
- **The price impact of a trade.** Usually costs go down with larger trades, but not in the case of price impact. When a large volume of stock (relative to the average daily volumes) is bought, for example, it can create an imbalance in demand and supply. This can only be resolved by a price change upwards, to bring in more supply. A market maker, for example, will only trade up to a specified quantity at quoted prices before reserving the right to change the price. The resulting price impact is the deviation of the transaction price from the 'unperturbed' price that would have prevailed had the transaction not occurred (often defined as the volume-weighted average of the transactions surrounding the trade). Price impact can also be caused by the 'information' the trade provides to the market. A large 'buy' may be owing to new positive information that the trader has about a company. This signal creates further demand. Similarly, a reverse argument holds for selling and price falls.
- **Opportunity cost.** This is the 'cost of waiting'. For example, a buy trade may be spread over a few days to prevent significant adverse price impact. However, over those few days the price rises anyway, so that any value that had been identified in the stock has now been depleted. This results in the full original order now being cancelled while partially complete. Some identified value has therefore not been 'captured'.

Now consider the explicit costs of trading. Trading equities on the London Stock Exchange involves a number of explicit transaction costs. A **commission** is charged by brokers, which ranges between 10 and 20 basis points for large institutional trades, to between 100 and 150 basis points for smaller trades. However, for very large institutional clients, the commission on some trades can be zero. These commissions do not currently attract value-added-tax (VAT). **Stamp duty reserve tax (SDRT)**, which is a simple purchase tax, is also payable on all transactions by the purchaser and is levied at a rate of 0.5%. For CREST-settled transactions, this SDRT is rounded up to the nearest 1p; otherwise it is rounded up to the nearest £5. Finally, a further levy of £1 on all purchases and sales in excess of £10,000 is charged to finance the Panel on Takeovers and Mergers (the **PTM levy**). Market makers are exempt from paying SDRT and the PTM levy.

Regarding direct costs, a 2010 UK study by Oxera Consultants looked at the costs brokers incur in using the trading platforms, central counterparties (CCP) and central securities depositories (CSD) for order book trading and post-trading in UK equities. Since the MiFID legislation, there has been a rapid growth of both trading channels (e.g. London Stock Exchange, BATS Chi-X Europe, Turquoise) and trade clearing venues (e.g. LCH.Clearnet, EMCF, EuroCCP). The study focused on a subset of

providers and excludes custody costs. It is meant to represent the costs of a large UK broker. The study finds that transactions via the London Stock Exchange/LCH.Clearnet/EUI channel incur 83% of costs via trading and 17% at the post-trading level. The breakdown in pence per transaction is:

- Trading platform: 23.8p.
- CCP (including netting, clearing and settlement): 4.2p.
- CSD (including settlement and stamp assessment): 0.6p.

For the BATS Chi-X/EMCF/EUI channel, 41% of costs are incurred at the trading level and 59% at post-trading, and the comparable breakdown in pence per transaction to the London Stock Exchange route above is 3p for the trading platform, 3.8p for the CCP fee and 0.4p for the CSD component; this gives 7.3p (rounded) in total compared to 28.5p for the LSE route.

Clearly, the differences in the channels are driven largely by the differences in costs arising at the trading platform level. Note implicit costs are not mentioned here and may be less on the larger London Stock Exchange market. Post-trading costs are broadly in line between the different channels. Note that these costs are subject to change, especially at a time of transformation and change in the exchange environment. Also, users with a different profile from this large UK broker will face different costs.

Purchasing gilts attracts a number of transaction charges. Commission rates vary from 0.5% to 1% of the value of the purchase for purchases below £5,000, while purchases in excess of £1m attract no commission charge. Gilts are normally settled on the next business day. Note that purchases on gilts are exempt from SDRT. Other securities purchases exempt from SDRT are loan stocks, foreign securities registered outside the UK, bearer securities and deals in traded options through ICE Futures Europe.

The transaction costs for derivatives (both exchange traded and OTC) are included in the transaction price. One study for Europe in 2006 found the following, in aggregate: for each €1m notional traded, total transaction costs for the exchange-traded derivatives was €7, whereas for the OTC derivatives it was €55, or about eight times as much. The €7 comprised €3.80 for the pre-trading and market-making, plus €3.20 for trading and clearing. The movement of OTC derivatives trading onto exchanges over the last 10 years has generally reduced costs for contracts that were previously traded as OTC.

For pooled investments such as unit trusts and OEICs there are generally two transaction costs: an entry cost and an ongoing charges figure (OCF). Over time the OCF will be the highest component of transaction costs. Actively managed pooled investments (funds) charge a higher OCF compared to a fund that simply tracks an index. The FCA Asset Management Market Study interim report published in November 2016 found that the average OCF for passive funds is 0.15% of the investment and for active funds the average OCF is 0.9%.

Transaction costs for direct property investments include stamp duty, legal costs and ongoing maintenance costs. Stamp duty varies according to the purchase cost and is covered in chapter 6.

Calculating round trip transactions

As noted above, trading securities incurs significant transaction costs, such as brokerage commissions, bid–ask spreads and market impact. Most traders employ brokers to trade on their behalf and pay commission for arranging their trades. Commissions are usually either a fixed percentage of the value of the transaction or a fixed price per share, bond or contract. Brokers also pay exchange, regulatory and clearing fees on behalf of their clients via their commission and fixed transaction charges.

Broker commission varies according to the type of trader and frequency of trading. Retail customers typically pay around £5.00 to £12.50 per trade (more frequent trading means lower commission). Institutional investors pay significantly less, with typical costs being 10 to 20 basis points for large trades.

Generally, traders who want to trade quickly buy at higher prices than the prices at which they sell. The difference comes from the price concessions that they give to encourage other traders to trade. For small orders, the trader will have to buy at the ask or sell at the bid, thus incurring the bid–ask spread. For large trades, buyers who want to trade quickly must raise prices to encourage other traders to sell to them. Similarly, impatient sellers of large trades must lower prices to encourage other traders to purchase from them. These price concessions, called market impact or price impact, often occur over time as large-trade buyers push up prices and large-trade sellers push them down in multiple transactions. For large institutions, the price impact of trading large orders generally is the biggest component of their transaction costs.

Traders who are willing to wait until other traders want to trade with them generally incur lower transaction costs. In particular, by using limit orders instead of market orders, they can buy at the bid price or sell at the ask price. However, these traders incur the risk that they will not trade

EXAMPLE

Bid–ask spread

A stock is trading with a bid price of £9.95 and an offer price of £10.00. The bid–ask spread in this case is £0.05. The spread as a percentage is $(£0.05/£10.00) \times 100$, or 0.50%.

A buyer who acquires the stock at £10.00 and immediately sells it at the bid price of £9.95 would incur a loss of 0.50% of the transaction value due to the spread. The purchase and immediate sale of 100 shares would entail a £5.00 loss, while if 10,000 shares were sold, the loss would be £500.00. The percentage loss resulting from the spread is the same in both cases.

when the market is moving away from their orders. The cost of not executing a trade is known as opportunity cost.

Traders choose their order submission strategies to minimise both their transaction costs and their opportunity costs. Market participants can use various techniques to reduce their transaction costs. They employ skillful brokers, use electronic algorithms to manage their trading and use hidden orders or dark pool trading systems to hide their size.

EXAMPLE

Tax and other charges

UK traders purchasing shares pay stamp duty reserve tax of 0.50% of the transaction value. A further levy of £1 on all purchases and sales of shares in excess of £10,000 is levied to finance the PTM levy.

EXAMPLE

Total round-trip transaction costs

Round-trip transaction costs are the total costs of completing a transaction, including bid–ask spread, commissions and taxes. The assumption made in this example is that the purchase and sale occur simultaneously so the quoted bid and ask prices are used as buying and selling prices.

For a retail investor that wants to purchase 5,000 shares in XYZ PLC, assume the current bid–ask quotes for this order quantity are 213.75p–213.85p and commission per trade is £5. The total round-trip transaction costs will be:

ELEMENT	COST
Buy 5,000 shares at 213.85p	£10,692.50
Sell 5,000 shares at 213.75p	(£10,687.50)
Commission (for two trades)	£10.00
Stamp duty reserve tax	£53.46
PTM levy for two trades	£2.00
Net cost (absolute)	£70.46
Net cost (percentage)	0.66%

CHAPTER 1 SECTION 3

TYPES OF FINANCIAL MARKETS

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Identify the main dealing systems and facilities offered in the UK equities market.
 - Identify the nature of the securities that would be traded on each of the main dealing systems and facilities.
 - Explain the structure and operation of the primary and secondary UK markets for gilts and corporate bonds.
 - Explain the motivations for, and implications of, dual-listing a company.
 - Compare and contrast exchange-traded and over-the-counter (OTC) markets.
 - Distinguish between the following alternative trading venues: multilateral trading facilities, systematic internalisers, dark pools.
- Distinguish between a quote-driven and an order-driven market.
 - Explain the roles of the various participants in the UK equity market.
 - Explain algorithmic and high-frequency trading, its benefits, risks and regulation.

1. THE UK EQUITY MARKET

1.3.1 Identify the main dealing systems and facilities offered in the UK equities market

1.3.2 Identify the nature of the securities that would be traded on each of the main dealing systems and facilities

Equity trading in Europe changed with the implementation of MiFID in 2007, which created harmonised regulation for investment services for all European Economic Area (EEA) states. Three types of order execution venues are permitted under MiFID:

1. Regulated markets.
2. Multilateral trading facilities (MTFs).
3. Systematic internalisers.

The greater competition across trading venues has led to fragmentation of trading, with the London Stock Exchange's share of trading volume declining to around 55% by late 2015.

This section focuses on the trading systems offered by the London Stock Exchange, which is the main regulated market in the UK. The London Stock Exchange offers two market models for trading UK shares: SETS and SETSqx.

SETS

SETS is an electronic limit order book used to trade stocks including FTSE 100, FTSE 250 and FTSE Small Cap constituents, as well as many of the most-traded AIM and Irish securities. In addition, exchange-traded funds (ETFs) and exchange-traded products (ETPs) are traded on SETS.

Liquidity on SETS throughout the trading day is underpinned by the provision of market maker electronically executable quotes. This ensures that traders can trade at least one exchange market size (EMS). The EMS is set by the LSE and is the 'normal market size' for orders and a market maker is obliged to quote bid/offer prices that are firm for order sizes up to the EMS.' Auctions on SETS are conducted at the opening and closing of the day (7:50am and 4:30pm) to establish the opening and closing price. These auctions allow traders to place orders at particular prices. Matching bids and offers are executed in a limited timeframe (ten minutes at opening and five minutes at closing), and the trade is not dependent on the speed an investor can trade. A further auction takes place at 12pm lasting for two minutes. This provides a price-forming liquidity event at a time of low volume, as the London Stock Exchange aims to win back some trading of large blocks of shares from dark pools. In addition, as many funds use midday London prices to fix their benchmark prices for investors, the auction provides liquid benchmark prices.

SETSqx and SEAQ

SETSqx is a trading platform for stocks that are less liquid than those covered by SETS. It combines a periodic electronic auction book with non-electronic quote-driven market making. Four uncrossings take place each day, which allow order book execution through auctions at 8am, 9am, 11am, 2pm and at closing. Investors therefore have a choice of trading in either the quote-driven or order book auction service.

SEAQ is a quote-display system used as the price reference point for telephone execution between market participants and registered market makers. It is used for fixed-interest securities and AIM securities that are not traded on either SETS or SETSqx.

LCH.Clearnet is the central counterparty to all SETS and SETSqx trades at the point of execution. This ensures that clearing members acting on behalf of firms trading on SETS are not exposed to any risk in the event that a clearing member defaults. LCH.Clearnet assumes the risk itself, but manages it by collecting margin from members.

International trading

International securities are traded on the London Stock Exchange through:

- The International Order Book – an electronic order book for trading international securities in the form of a depository receipt on the London Stock Exchange.
- The European Quoting Service (EQS) – a quote-driven market making and trade-reporting platform that supports all European Union (EU) liquid securities (excluding those traded on SETS and SETSqx). With this platform, market makers enter non-electronically executable quotes during the mandatory quote period.

The European Trade Reporting service, provided by the LSE, allows clients to meet their MiFID post-trade reporting obligations whether trading on- or off-exchange. This is achieved either by:

- on-exchange off-book trade publication – for all trades regulated under the exchange's rules; or
- OTC trade publication – for any unregulated trades executed away from the exchange's markets, whether acting as a systematic internaliser or not.

2. THE UK GILT AND CORPORATE BOND MARKET

1.3.3 Explain the structure and operation of the primary and secondary UK markets for gilts and corporate bonds

The London Stock Exchange operates an electronic Order Book for Retail Bonds (ORB). This order-driven trading service offers retail investors access to a select number of government, supranational and UK corporate bonds.

In June 2016, more than 60 government bonds and over 100 corporate bonds were available for trading on the ORB. The ORB offers an electronic model similar to SETS with continuous two-way pricing provided by market makers (submitted as named executable quotes). Other market participants are able to enter market orders and limit orders.

Gilts

UK government bonds are commonly referred to as 'gilt-edged' securities or 'gilts'. Although the issued bonds carry a variety of names (e.g. Treasury, Exchequer, Consols), all bonds are the direct obligation of the UK government. Gilts, which usually pay coupons semi-annually, are used to finance the shortfall between government expenditure and government revenue. Management of the UK government's debt is carried out by the Debt Management Office (DMO), an agency of the Treasury.

The DMO typically issues gilts via auction, which is also the preferred method in a number of other countries, most notably the US. Gilt settlement is made via CREST.

The main holders of gilts are UK pension funds, UK insurance companies, overseas investors, UK banks and building societies, and private individuals.

The key participants in the market for UK gilts are gilt-edged market makers (GEMMs) who are required by the DMO to 'make on demand and in any trading condition, continuous and effective two-way prices in gilts at which they stand committed to deal'. This means that GEMMs must continually quote bid and ask prices for gilt issues and must trade at these prices so that investors always have a source of liquidity. In addition, the GEMMs are expected to participate in primary gilt issuance, provide the DMO with relevant data about the gilts market and accept the DMO's monitoring arrangements.

The Gilt-Edged Market Makers' Association provides data relating to gilt prices at the end of each day to the DMO, and this is where the gilt prices quoted in the financial press come from.

Corporate bonds

When corporate bonds are issued, they may be sold as an open offer for sale or directly to a small number of professional investors (a so-called 'private placing').

An open offer for sale involves a syndicate of banks, with one as lead manager buying the bonds and then reselling them to investors. The sale of the bonds is therefore underwritten by the banks (who charge for this service). If the lead bank buys all the bonds and sells them to the syndicate this is called a 'bought deal'. The syndicate members could then sell the bonds at varying prices. More usually, the lead manager and the syndicate buy the bonds together and offer them at a fixed price for a certain period, known as a 'fixed-price re-offering'.

Corporate bonds mainly trade in decentralised, dealer-based, OTC markets. Market liquidity is provided by dealers and other market participants committing risk capital. When an investor buys or sells a bond, the counterparty to the trade is almost always a bank or securities firm acting as a dealer.

The characteristics of both gilts and corporate bonds are discussed in chapter 12, section 2.

3. DUAL LISTING

1.3.4 Explain the motivations for, and implications of, dual-listing for a company

A dual-listed company (DLC) is a corporate structure in which two corporations function as a single operating business through a legal equalisation agreement, but retain separate legal identities and stock exchange listings.

Virtually all DLCs are cross-border and have tax advantages for the corporations and their shareholders. Equalisation agreements are legal contracts that specify how ownership of the corporation is shared, and are set up to ensure equal treatment of both companies' shareholders in voting and cash flow rights.

Usually, the two companies share a single board of directors and have an integrated management structure. Some examples of DLCs and the countries where the two corporations making up the DLC are listed are:

- BHP Billiton (Australia and UK).
- Carnival Corporation & plc (US and UK).
- Investec (South Africa and UK).
- Royal Dutch Shell (UK and Netherlands).
- RELX Group (UK and Netherlands).

One important advantage of a dual-listed structure is tax. Capital gains tax could be payable if an outright merger took place, but no such tax consequence arises with a DLC deal.

The shares of the DLC parents represent claims on exactly the same underlying cash flows. This implies that in efficient financial markets, stock prices of the DLC parents should be the same. In practice, however, large differences between the prices of the two parents can arise. For example, in the early 1980s Royal Dutch NV was trading at a discount of approximately 30% relative to Shell Transport and Trading plc. This creates arbitrage opportunities for investors, assuming the two prices eventually converge. The evidence on DLC mispricing is that convergence can take many years and therefore an arbitrage strategy of this kind would require a very long investment horizon.

4. EXCHANGE TRADING, OVER-THE-COUNTER AND ALTERNATIVE TRADING VENUES

1.3.5 Compare and contrast exchange-traded and over-the-counter (OTC) markets

1.3.6 Distinguish between the following alternative trading venue: multilateral trading facilities, systematic internalisers, organised trading facilities and dark pools

Exchange-traded and over-the-counter markets

Trading on exchanges, such as stock markets like the LSE set the institutional rules that govern trading and information flows about that trading. They are closely linked to the clearing facilities through which post-trade activities are completed for securities and derivatives traded on the exchange. An exchange centralizes the communication of bid-and-offer prices to all direct market participants, who can respond by selling or buying at one of the quotes or by replying with a different quote. Depending on the exchange, the medium of communication can be voice, hand signal, a discrete electronic message, or computer-generated electronic commands. When two parties reach agreement, the price at which the transaction is executed is communicated throughout the market. The result is a level playing field that allows any market participant to buy as low or sell as high as anyone else as long as the trader follows the exchange rules.

The advent of electronic trading has eliminated the need for exchanges to be physical places. Indeed, many traditional trading floors are closing, and the communication of orders and executions are being conducted entirely electronically.

An OTC market involves the trading of securities in a decentralised way, usually via telephone, fax or electronic network. This contrasts with trading on a physical trading floor or other centralised meeting place. The securities may not be listed on an exchange, and trading takes place via dealers who carry inventories of the securities to satisfy buy and sell orders. OTC refers to a bilateral contract in which two parties agree on how a trade or agreement is to be settled in the future. In terms of equity trading, this type of trade is referred to as an off-book trade (or ‘upstairs trade’) and these types of trades are typically large and traded off the exchange so the trade does not move the price (i.e. has no price impact).

Multilateral trading facilities

MTFs are trading platforms organised by investment firms or market operators which bring together third-party buyers and sellers, often banks and large institutional investors. MTFs can be operated both by the operator of a regulated market or an investment firm. The distinction between a regulated market and an MTF is rather blurred as they both have to follow the same regulatory standards on transparency and rulebooks.

Since the introduction of MiFID in 2007, a large number of MTFs have been established by investment banks to compete on trading cost with existing exchanges, such as the London Stock Exchange. Two of the largest MTFs have merged to form BATS Chi-X Europe. Demonstrating the

blurred line between MTFs and regulated markets, BATS Chi-X became a recognised investment exchange in 2013. MTFs can also be owned by conventional exchanges (e.g. Turquoise is owned by the London Stock Exchange).

Systematic internalisers

A systematic internaliser is an investment firm which deals on its own account by executing customer order flows in liquid shares outside either a regulated market or a MTF. MiFID requires such a firm to publish and honour buy and sell prices up to standard market size. This means they are not able to improve their price when dealing in retail size or with retail clients.

Organised trading facilities

An organised trading facility (OTF) is a multilateral system, which is not a regulated market or MTF and in which multiple third party buying and selling interests in bonds, structured finance product, emissions allowances or derivatives are able to interact in the system in a way which results in a contract. This is a new category of trading facility introduced in MiFID II and is designed to capture trading in bonds and certain kinds of derivatives that would not be traded on organised markets or MTFs. Also, trading on regulated markets and MTFs is governed by rules whereas trading on OTFs is discretionary.

Dark pools

Dark pools are electronic crossing networks that provide liquidity which is not displayed on a conventional order book of an organised exchange. As neither the price nor the identity of the trader is displayed, dark pools are useful for traders wishing to buy/sell large numbers of shares without revealing themselves on the open market.

Dark pools are typically MTFs that have opted out of the requirements for pre-trade transparency. They are an alternative to off-market trades in that they allow large trades to be traded without price impact but they trade in a market (rather than bilaterally), thus potentially getting a better price.

5. QUOTE-DRIVEN AND ORDER-DRIVEN MARKETS

1.3.7 Distinguish between a quote-driven and an order-driven market

1.3.8 Explain the roles of the various participants in the UK equity market

An important distinction exists between quote-driven and order-driven markets. SEAQ is quote-display, while SETS is an order book – i.e. an order-driven system.

Order-driven systems are used for securities that are highly liquid – i.e. traded in large volumes, so that when an investor wants to buy a stock then a counterparty can be readily found. Moreover, the price the buyer is willing to pay is acceptable to the seller. Under order-driven systems, orders from all customers are input to an electronic order book, where there are two main types of order: market and limit orders.

- Market orders are orders that specify a quantity to be traded, but not a price. They are then matched with the best order in the order book at that time. So an order to buy 100 ABC shares will be matched with an order to sell 100 ABC shares with the lowest price.
- With a limit order, buyers state the quantity and price they are willing to pay. Similarly, sellers state the prices they are willing to accept.

Orders are automatically ‘matched’ and then proceed to the settlement system. Limit orders will only be matched once the quantity/price stated in the order is available on the other side of the trade. Remainders of orders, where not fully matched, may be left on the system until completed. The priority for matching is first by price, and then by the time the order was input – i.e. on a first-in-first-out basis.

EXAMPLE

A simplified example of an order book for XYZ’s shares is as follows:

BUY		SELL	
Volume	Price	Volume	Price
5,000	303	12,100	304
10,880	303	650	305
4,666	303	18,221	305
10,000	302	4,326	306
860	301	14,100	307
5,000	301	1,500	307

The table shows the volume of shares for each order, the prices buyers are willing to pay and that sellers are willing to accept. Note the orders in the order book are made up of limit orders. As well as the volumes and prices, the times that the orders are entered would also be recorded.

The orders shown in the table are those that have not been matched – the highest price buyers are willing to pay (303p) is below the price that sellers are willing to accept (304p). If an order is entered to buy 10,000 XYZ shares ‘at best’, (i.e. a market order) then this will be matched against the selling order at the top of the right-hand column with a price of 304p.

Quote-driven systems require market makers to maintain liquidity and efficiency in trading. An electronic order-driven system automatically gives investors the best price available, but this is not the case with quote-driven systems.

Market makers are financial institutions that have an obligation to continually quote bid and ask prices for a given security, and be ready and able to buy or sell at those publicly quoted prices. Of course, if the market maker does not want to trade in a particular security, it will not quote a good price. Market makers in equities in the UK may elect which securities they wish to trade in, but GEMMs must deal in all gilt issues, or none at all.

Market makers must indicate firm prices up to a required volume (set by exchanges). For example, the London Stock Exchange sets the minimum volume in the UK (known as the normal market size). For volumes greater than this, market makers may give indicative prices. Market makers input their prices to a central market system (e.g. SEAQ), which market participants have access to view. Broker-dealers can then identify the market maker that gives their most favourable price, and can call that market maker to strike a deal. The market maker will then update the system as required.

6. HIGH-FREQUENCY TRADING

1.3.9 Explain algorithmic and high-frequency trading, its benefits, risks and regulation

Algorithmic trading, also known as automated trading, refers to the use of electronic platforms for entering orders whereby an algorithm decides on aspects of the order, such as timing, price or volume. In many cases, the order is initiated without human intervention. Algorithmic trading is widely used by institutional, buy-side traders, such as pension funds and mutual funds, to divide large trades into several smaller trades. This manages market impact and risk. Sell-side traders, such as market-makers and some hedge funds, also generate and execute orders automatically and in doing so provide liquidity to the market.

Under MiFID II a firm engaging in algorithmic trading must enter into a binding written agreement with the trading venue to make markets for a specified period of time. This is to improve the availability of liquidity in the markets, particularly in times of high volatility. The firm is also required to have in place effective systems and risk controls to ensure its trading systems are resilient and have enough capacity, are subject to appropriate thresholds and limits which prevent sending erroneous orders, do not function in a way that contributes to a disorderly market and cannot be used for any purpose that is contrary to the rules of a trading venue to which it is connected. In addition, firms must have effective business continuity arrangements to deal with any system failure and ensure their systems are tested and monitored. Trading venues will also be required to have systems to ensure that algorithmic trading cannot create or contribute to disorderly trading on the market. These will include systems to limit the ratio of unexecuted orders to transactions, slow down order flow and regulate minimum tick sizes. Trading venues will be required to provide facilities for their members to test algorithms. Trading venues will also be required to be able to identify orders generated by algorithmic trading, different algorithms used and the persons initiating the orders.

High-frequency trading (HFT) is a kind of algorithmic trading in which computers make decisions to initiate orders based on information that is processed more quickly than human traders are capable of doing. The growth of HFT has resulted in a dramatic change in the market microstructure, particularly in the way liquidity is provided. HFT essentially looks to identify predictable patterns in financial data. The trading is characterised by short portfolio holding periods (often just a few seconds or even milliseconds) and very large volumes. There are four key HFT strategies:

- market-making based on order flow;
- market-making based on tick data information;
- event arbitrage; and
- statistical arbitrage.

TABB Group estimates that HFT accounted for 77% of transactions in UK markets in 2010, with between 35 and 40 independent HFT firms operating in the UK in that year.

As HFT is a subset of algorithmic trading, persons engaging in HFT techniques must abide by the general rules which apply to algorithmic traders, as well as specific rules for HFT. Under MiFID II, HFT firms will be required to store time sequenced records of their algorithmic trading systems and trading algorithms for at least five years. ESMA proposes that the records should contain sufficient detail to enable monitoring by the competent authority, and include information such as details of the person in charge of each algorithm, a description of the nature of each decision or execution algorithm, and the key compliance and risk controls. The records must be made available to the competent authority on request.

HFT has been the subject of public focus since the US Securities and Exchange Commission (SEC) and the Commodity Futures Trading Commission (CFTC) stated that both algorithmic trading and HFT contributed to volatility in the 2010 Flash Crash. At 2:42pm on 6 May 2010, the US stock market began to rapidly fall, and dropped 600 points in five minutes. By 2:47pm, the market had an almost 1,000-point loss on the day. Twenty minutes later, the market had regained most of the 600-point drop. According to the joint SEC/CFTC investigation, at 2:32pm, against a 'backdrop of unusually high volatility and thinning liquidity', 'a large fundamental trader (a mutual fund complex) initiated a sell program to sell a total of 75,000 E-Mini S&P 500 contracts (valued at approximately US\$4.1bn) as a hedge to an existing equity position'. The investigation states that this was an unusually large position and that the computer algorithm used to trade the position was set to 'target an execution rate set to 9% of the trading volume calculated over the previous minute, but without regard to price or time'.

As the seller's trades were executed in the futures market, buyers included HFT traders, and these HFT firms also started aggressively selling the long futures positions they first accumulated mainly

from the mutual fund. HFT traders then began to quickly buy and resell contracts to each other, generating a 'hot potato' effect as the same positions were rapidly passed back and forth. The combined sales by the large seller and HFT traders quickly drove the market down. However, this version of events has been challenged by the exchange the contracts were traded on and by a number of academic papers. Despite this, HFT is likely to have played a prominent role in driving the market down rapidly.

Another example of the risks involved in HFT occurred in August 2012, when Knight Capital Group experienced a problem with its automated trading system. The problem was related to Knight's installation of trading software and resulted in it sending numerous erroneous orders in NYSE-listed securities into the market. Knight has since traded out of its entire erroneous trade position, which has resulted in a realised pre-tax loss of approximately US\$440m.

CHAPTER 1 SECTION 4

SETTLEMENT PROCEDURES IN THE UK

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Explain the clearing and settlement procedures for UK exchange-traded securities.

The current standard settlement of London Stock Exchange equity transactions is T+2 (i.e. trade date plus two working days). Settlement is made through CREST, which is a computerised system that allows investors to hold shares in an electronic rather than paper form.

The settlement of gilts is also carried out through CREST, which operates a computerised settlement system for its members, including GEMMS and large banks. The settlement period is T+1.

Since the implementation of MiFID in 2007, there has been a rapid growth in equity trading channels and clearing venues. As well as trade execution, many platforms may provide services in addition to trade execution, such as order management. Central counterparties offer counterparty risk-clearing, including preparing transactions for settlement, netting transactions and settlement instruction. Management of failed trades is also provided.

Settlement itself involves pre-settlement positioning (i.e. making sure the buyer has the necessary monies and the seller has the securities available) and the completion of the transaction through transfer of ownership and monies. This process is initiated once the trade has been cleared by the central counterparty. Such activities are provided directly via CSDs.

CHAPTER 1 SECTION 5

THE UK LISTING AUTHORITY AND PROSPECTUS REQUIREMENTS

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Explain the role of the FCA as the UK listing authority.
- Identify the listing rules in Financial Services and Markets Act (FSMA) 2000 as amended, and relevant EU directives.
- Explain the main conditions for listing on the Official List, AIM and NEX.
- Explain the purpose of the requirement for prospectus or listing particulars.
- Identify the main exemptions from listing particulars.

1. THE UK LISTING AUTHORITY

1.5.1 Explain the role of the FCA as the UK listing authority

1.5.2 Identify the listing rules in Financial Services and Markets Act (FSMA) 2000 as amended, and relevant EU directives

Public companies are defined as those that seek finance from the investing public. Private companies, on the other hand, are generally forbidden to raise capital in this way. A further distinction is that public companies who wish to have their securities listed on the London Stock Exchange must comply with the stock exchange's rules. The advantage of a stock exchange listing is that the shares are freely marketable, which makes them more attractive to investors.

In the UK, the FCA is the 'competent authority' (or, colloquially, the UK listing authority) to decide on the admission of securities to the Official List. The listing authority makes rules governing admission to listing and the continuing obligation of issuers. These rules are collectively known as the listing rules, and the power to create the rules comes from the [Financial Services and Markets Act 2000](#) as amended. The listing rules also implement various EU directives, including the Prospectus Directive and the Transparency Directive.

Two listing categories exist for admission to the Official List:

- **Premium** means that a company must meet standards over and above (often described as 'super-equivalent') those set out in the EU directives, including the UK Corporate Governance Code. A premium listing is only available to equity shares issued by commercial trading companies.
- **Standard** means a company only has to meet the requirements laid down by EU legislation. This means that their overall compliance responsibilities will be lighter, both in preparing for listing and on an ongoing basis. Standard listings cover the issuance of shares and Depositary Receipts.

A company with either a premium or a standard listing can choose to admit to trading on the main market of the London Stock Exchange (or alternatively the NEX Main Board – see sub-section 2). Only companies with a premium listing are eligible for inclusion in one of the FTSE UK indices, including FTSE 100 and FTSE 250. This is important for companies seeking liquidity for their listed securities, particularly given that tracker funds' investment are driven by FTSE indexation.

2. LISTING RULES AND PROSPECTUS REQUIREMENTS

1.5.3 Explain the main conditions for listing on the Official list, AIM and NEX

1.5.4 Explain the purpose of the requirement for prospectus or listing particulars

Under the listing rules, no securities may be admitted unless the listing authority has approved either listing particulars or a prospectus, and that these documents have been published.

In general, a prospectus is required whenever an application for listing is made and the securities are to be offered to the public before admission to listing. Where the securities are not to be offered to the public, a prospectus is not required but listing particulars still need to be approved and published by the listing authority.

The Prospectus Directive also requires publication of a prospectus where securities are to be admitted to trading on a regulated market in the EU. This is wider than the normal concept of listing, as it includes securities traded on 'second markets' and on other trading facilities. One of the main consequences of the Prospectus Directive is the 'passport'. This allows a company to raise capital in any EU member state with the production and approval of a prospectus in one member state.

The prospectus rules specify the content of a prospectus (or the listing particulars), which vary according to the nature of the company applying for listing. In general, the prospectus should disclose:

- all information that an investor would reasonably require regarding the assets and liabilities, financial position, profits and losses, and prospects of the issuer; and
- the rights attached to the securities.

Conditions for listing

The listing authority sets out various conditions for listing. For a premium listing, the most important of these are:

- A company must normally have published accounts that cover at least three years.
- The expected aggregate market value of all the securities to be listed must be:
 - at least £700,000 for shares; or
 - at least £200,000 for debt securities.
- 25% of the listed securities must be held by the public by the date of admission.
- The company must demonstrate it has sufficient working capital to cover at least the next twelve months of business.

- A sponsor is required in connection with the admission for listing.

For a standard listing, there is no need for a published three-year trading record. This means that new companies can apply. Additionally, the twelve-month working capital statement is not required and the company does not require a sponsor. The other rules still apply, however.

Listing on AIM

AIM does not stipulate minimum criteria for company size, trading record or number of shares held by the public.

Companies need a nominated adviser (a 'nomad') from an approved register, who is responsible to the London Stock Exchange for ensuring that all applicants are suitable for admission to AIM and are ready to be admitted to a public market. Companies must produce an admission document that includes information about a company's directors, their promoters, business activities and financial position.

AIM companies are required to disclose details of their financial performance through scheduled interim and full-year results, together with disclosures on an ongoing basis regarding developments which could affect company performance. AIM is not part of the Official List and is not an EU-regulated market, but is classified as a MTF (see section 3).

A further segment of the London Stock Exchange main market is the High Growth Segment (HGS). The HGS is designed to attract high growth, mid-sized UK and European companies aspiring to an Official Listing. A HGS company is larger than a typical AIM company and normally has aspirations to ultimately join the premium segment of the main market. A HGS company has to meet the following eligibility criteria:

- Be incorporated in the EEA.
- Be a commercial company, issuing equity shares only.
- Have a minimum free float of 10% at IPO.
- Demonstrate historic revenue (on a compound annual growth rate basis) of 20% over three years.

The prospectus, disclosure and transparency rules apply to companies in the HGS.

Listing on NEX

An alternative route to admission to the Official List in the UK is to seek a listing on the NEX Exchange Main Board. The eligibility for such a listing is the same as for the Official List and companies can choose either a premium or standard listing. NEX Exchange also operates the NEX Exchange Growth Market. The admission criteria for a listing on the Growth Market are:

- Appoint and retain a NEX Exchange corporate adviser at all times.
- Have at least 12 months' audited accounts
- Have at least 10% free float (shares in public hands)
- Demonstrate appropriate levels of corporate governance, including having at least one independent non-executive director.
- Have published audited financial reports no more than nine months prior to the date of admission to trading.
- Have at least twelve months' working capital.
- Have no restrictions on the transferability of shares.
- Issue shares which are eligible for electronic settlement.

3. EXEMPTIONS FROM LISTING PARTICULARS

1.5.5 Identify the main exemptions from listing particulars

There are a number of exemptions from the obligation to produce a prospectus, including:

1. Where the offer is made to 'qualified investors'. Qualified investors are those who are, or may elect to become, professional clients or eligible counterparties. Retail clients who elect to become professional clients must meet at least two of the following criteria:
 - have carried out transactions of a significant size (over €1,000) on securities markets at an average frequency of, at least, ten per quarter for the last four quarters;
 - have a security portfolio exceeding €500,000; and/or
 - work, or have worked for at least a year, in the financial sector in a professional position which requires knowledge of security investment.
2. Where the offer is made to fewer than 150 persons (other than qualified investors) per EEA state.
3. Where the minimum consideration per investor, or the minimum denomination per unit, is equal to or greater than €100,000.
4. Where the total consideration of the offer is less than €5m calculated over a period of twelve months.

5. Where shares representing less than 10% of the number of shares of the same class are already admitted for trading on the same regulated market.

Note that point five only relates to an admission to trading, not to a public offer. Therefore, a rights issue to the public, at whatever level, requires a prospectus.

CHAPTER 1 SECTION 6

INFORMATION DISCLOSURE AND CORPORATE GOVERNANCE REQUIREMENTS FOR UK EQUITY MARKETS

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Explain the disclosures required under the disclosure and transparency rules relating to directors' interests and major shareholdings.
- Explain the purpose of corporate governance regulation and the role of the Financial Reporting Council in promoting good corporate governance.
- Explain, in outline, the scope and content of corporate governance standards in the UK.
- Explain the London Stock Exchange requirements for listed companies to disclose corporate governance compliance.
- Explain the continuing obligations of London Stock Exchange listed companies regarding information disclosure and dissemination.
- Explain, in outline, the UK company law requirements regarding the calling of annual general meetings and other general meetings.
- Distinguish between annual general meetings and other types of company meetings.
- Distinguish between the types of resolution that can be considered at company general meetings.
- Distinguish between the voting methods used at company meetings.
- Explain the role and powers of a proxy.

1. DISCLOSURE OF DIRECTORS' INTERESTS IN SHARES

1.6.1 Explain the disclosures required under the disclosure and transparency rules relating to directors' interests and major shareholdings

Listed companies are subject to the FCA's disclosure rules and transparency rules (DTR).

DTR 3 deals with reporting transactions in a company's securities, including derivatives, by 'persons discharging managerial responsibilities' (PDMRs), which includes directors. PDMRs and their connected persons must notify the listed company concerned within four business days of a transaction (both sale and purchase of any value).

The listed company must notify the market as soon as possible thereafter, and no later than the end of the following business day. This notification must be through a primary information provider.

2. DISCLOSURE OF MAJOR INTERESTS IN SHARES

1.6.1 Explain the disclosures required under the disclosure and transparency rules relating to directors' interests and major shareholdings

Major shareholders in listed companies can be in a position to influence company management. The DTRs apply to substantial individual interests in shares carrying unrestricted voting rights. The aim is to ensure that directors, shareholders and employees of a public company can ascertain, for example, the identity of any person who is in the process of buying shares in the company through nominees to gain control of it. As such, an investor must notify a company within two business days when it acquires 3% or more of that company's shares. Further disclosures are required at increments of more than 1% above the initial 3%.

A further provision relates to 'concert parties'. Concert parties are groups of individuals acting in agreement for the purpose of acquiring interests in shares. The aim of this provision is to prevent control 'in concert'. That is, a group of individuals secretly agreeing that, while each person only openly acquires less than the 3% threshold, they will actually use the combined interest to gain control, or ensure a takeover or a special resolution at the meeting of a company.

The Companies Acts requires that each individual in such an agreement must have the interests of the other members of the concert party added to their own interest. If the total then exceeds 3%, a disclosure must be made. Also, each person must notify that they are party to such an agreement and must give the details of it.

An individual is also subject to the disclosure rule where they are deemed to personally have control over the exercise of any rights conferred by holding those shares, even where they are not the registered holder. This rule is used to expose any agreement which otherwise might be used to conceal an interest requiring disclosure.

A public company must keep a register of interests in shares disclosed. A company may require a person who is known to have had an interest in its shares during the previous three years to indicate whether they hold or have held such an interest. This provides a public company with the power to probe and discover the true beneficial owner of its shares. Such information must also be recorded in the register.

Persons with significant control (PSC) within a company or limited liability partnership (LLP) must be registered in a statutory register, which most UK companies and LLPs are required to keep. This is to ensure that the individuals who are a company's ultimate beneficial owners and controllers are identified and details of their holdings made public. The aim of the PSC register is to combat tax evasion, money laundering and terrorist financing. The rules apply to all UK companies, except those subject to DTR 5 as these companies are already subject to extensive disclosure requirements.

3. REMUNERATION REPORTING REGULATIONS

Regulations on remuneration reporting for large and medium-sized companies and groups were introduced effective from October 2013. The regulations require the remuneration report of a company to be in two parts:

1. A policy report setting out the company's remuneration policy and key factors that were taken into account in setting that policy.
2. An implementation report setting out actual payments to directors and details on the link between company performance and pay for the financial year.

In particular, the regulations provide detail on how the pay for executive directors is to be calculated. The remuneration policy will include details of the policy on payments to recruit directors and payments made on directors leaving the company. The separate remuneration policy and implementation reports must be put to shareholder vote at the annual general meeting (AGM) held in the first financial year beginning on or after 1 October 2013. Shareholders will have a binding vote on the remuneration policy. The policy should then be put to a shareholder vote at the AGM at least every three years. If shareholders do not approve the policy, a company can:

- continue to operate its previous approved policy even if it is already three years old;
- seek shareholder approval again (at an AGM or other general meeting) for the same (or revised) policy; or
- seek separate shareholder approval for any specific remuneration which is not within a previous approved policy.

The implementation report is published annually.

4. UK CORPORATE GOVERNANCE REGULATIONS

1.6.2 Explain the purpose of corporate governance regulation and the role of the Financial Reporting Council in promoting good corporate governance

1.6.3 Explain, in outline, the scope and content of corporate governance standards in the UK

Corporate governance refers to the way in which companies are directed and controlled. It is the way the affairs of corporations are handled by their corporate boards and officers.

Corporate governance originated in response to the separation of ownership and control following the formation of joint stock companies. The owners or shareholders of these companies, who were not involved in day-to-day operational issues, required assurances that the directors and managers, who were in control of the company, were safeguarding their investments and accurately reporting the financial outcome of the businesses activities. The corporate governance system in the UK has traditionally stressed the importance of internal controls and the role of financial reporting and accountability, rather than external legislation.

The UK Corporate Governance Code

The UK Corporate Governance Code was published in June 2010, with updates in 2012, 2014 and 2016. The main elements of the Code are shown below.

THE MAIN PRINCIPLES OF THE CODE

Section A: Leadership

- Every company should be headed by an effective board which is collectively responsible for the long term success of the company.
- There should be a clear division of responsibilities at the head of the company between the running of the board and the executive responsibility for the running of the company's business. No one individual should have unfettered powers of decision.
- The chairman is responsible for leadership of the board and ensuring its effectiveness on all aspects of its role.

- As part of their role as members of a unitary board, non-executive directors should constructively challenge and help develop proposals on strategy.

Section B: Effectiveness

- The board and its committees should have the appropriate balance of skills, experience, independence and knowledge of the company to enable them to discharge their respective duties and responsibilities effectively.
- There should be a formal, rigorous and transparent procedure for the appointment of new directors to the board.

- All directors should be able to allocate sufficient time to the company to discharge their responsibilities effectively.
- All directors should receive induction on joining the board and should regularly update and refresh their skills and knowledge.
- The board should be supplied in a timely manner with information in a form and of a quality appropriate to enable it to discharge its duties.
- The board should undertake a formal and rigorous annual evaluation of its own performance and that of its committees and individual directors.
- All directors should be submitted for re-election at regular intervals, subject to continued satisfactory performance.

Section C: Accountability

- The board should present a balanced and understandable assessment of the company's position and prospects.
- The board is responsible for determining the nature and extent of the significant risks it is willing to take in achieving its strategic objectives. The board should maintain sound risk management and internal control systems.
- The board should establish formal and transparent arrangements for considering how they should apply the corporate reporting and risk management and internal control

principles and for maintaining an appropriate relationship with the company's auditor.

Section D: Remuneration

- 'Executive directors' remuneration should be designed to promote the long-term success of the company. Performance-related elements should be transparent, stretching and rigorously applied.
- There should be a formal and transparent procedure for developing policy on executive remuneration and for fixing the remuneration packages of individual directors. No director should be involved in deciding his or her own remuneration.

Section E: Relations with shareholders

- There should be a dialogue with shareholders based on the mutual understanding of objectives. The board as a whole has responsibility for ensuring that a satisfactory dialogue with shareholders takes place.
- The board should use the AGMs to communicate with investors and to encourage their participation.

The UK Corporate Governance Code applies to all companies with a premium listing of equity shares whether they are based in the UK or not. The Code is not a rigid set of rules. It consists of principles (main and supporting) and provisions. The Listing Rules require companies to apply the Main Principles and report to shareholders on how they have done so. The Code therefore operates on a 'comply or explain' approach.

In addition to the UK Corporate Governance Code, the Financial Reporting Council (FRC) also operates the UK Stewardship Code. The UK Stewardship Code is a set of principles or guidelines directed at institutional investors who hold voting rights in UK companies. Its principal aim is to make shareholders, who manage other people's money, be active and engage in corporate governance in the interests of their beneficiaries.

The UK Stewardship Code adopts the same 'comply or explain' approach used in the UK Corporate Governance Code. This means that it does not require compliance with its principles, but if fund managers and institutional investors do not comply with any of the principles, they must explain why they have not done so on their websites. The information is also sent to the FRC, which links to the information provided to it.

The principles of the UK Stewardship Code are that institutional investors should:

1. Publicly disclose their policy on how they will discharge their stewardship responsibilities.
2. Have a robust policy on managing conflicts of interest in relation to stewardship and this policy should be publicly disclosed.
3. Monitor their investee companies.
4. Establish clear guidelines on when and how they will escalate their activities as a method of protecting and enhancing shareholder value.
5. Be willing to act collectively with other investors where appropriate.
6. Have a clear policy on voting and disclosure of voting activity.
7. Report periodically on their stewardship and voting activities.

5. INFORMATION DISSEMINATION AND DISCLOSURE BY LISTED COMPANIES

1.6.4 Explain the London Stock Exchange requirements for listed companies to disclose corporate governance requirements

1.6.5 Explain the continuing obligations of London Stock Exchange-listed companies regarding information disclosure and dissemination

When a company is listed on the London Stock Exchange, it agrees to abide by the continuing obligations of listed companies. These requirements are designed to keep shareholders of a listed company properly informed, and require the listed company to:

- Submit drafts to the UK-listing authority for approval of all meetings and all circulars (except those of a routine nature) to holders of securities.
- Notify the market of profit announcements, dividend declarations, material acquisitions, change of directors, change in major shareholdings and any other information necessary to enable holders of securities and other members of the public to appraise the position of the company and avoid the establishment of a false market in the securities. Such information is to be given to the market as a whole.

When making an announcement, issuers may use a third-party firm that has demonstrated that it can distribute information in accordance with the Transparency Directive. Issuers using an approved firm to distribute information do not have to make an annual declaration to the FCA about their compliance. Instead, if an issuer decides not to use an approved firm, it has to record how each announcement complies with the Transparency Directive and report on its compliance to the FCA annually or whenever it is required by the FCA. A number of firms are currently approved by the FCA, including the Regulatory News Service of the London Stock Exchange.

The UK-listing authority provides guidance rules on the dissemination of price-sensitive information by companies. These rules are intended to aid compliance with the insider dealing regulations of the [Criminal Justice Act 1993, Part V](#), and the Code of Market Conduct.

In summary, the rules encourage companies to release new information to the market on a regular basis. Companies should have a consistent procedure for both determining what information is price-sensitive and for releasing it. Where companies issue lengthy releases that include comments on current or future trading prospects, this information should be given due prominence. If price-sensitive information is inadvertently released to, say, analysts or journalists, then a company should take immediate steps to ensure that the whole market has access to the information. Also, a company should correct a public forecast as soon as possible if the outcome is significantly different. However, there is no obligation on a company to tell individual analysts that their forecast is wrong.

6. GENERAL MEETINGS

- 1.6.6 Explain, in outline, the UK company law requirements regarding the calling of annual general meetings and other meetings
- 1.6.7 Distinguish between annual general meetings and other types of company meetings
- 1.6.8 Distinguish between the types of resolution that can be considered at company general meetings
- 1.6.9 Distinguish between the voting methods used at company meetings
- 1.6.10 Explain the role and powers of a proxy

Annual general meetings

The [Companies Act 2006](#) sets out requirements relating to the calling and conduct of company general meetings. Every public company is required to hold an AGM within six months of the end of their financial year, and the interval between AGMs must not be more than 15 months. The directors of the company must call the meeting, and it must be called by giving not less than 21 calendar days' written notice.

Although there are no items of business which the Companies Act require to take place at the meeting, certain items are dealt with by convention, such as:

- declaring a dividend;
- considering the financial statements;
- considering the reports of the directors and auditors;
- electing directors in place of those retiring; and
- appointing and remunerating auditors.

Other meetings

Any meeting of a company other than an AGM is called a general meeting. General meetings must be called by giving not less than 14 calendar days' written notice, and companies are permitted to communicate with their shareholders electronically (for example, by email, posting a note on a website or telephone). For the purposes of electronic communication, a notice is deemed to be sent when the electronic notice is first transmitted and delivered 48 hours after being sent. Any notice period therefore runs from the delivery date, i.e. 48 hours after being sent.

The directors of a company may call a general meeting whenever they see fit. The directors are also bound to call such a meeting when 5% or more of the shareholders request it, given that twelve months have elapsed since the last general meeting. If the directors fail to call a general

meeting within 21 calendar days of such a request, then the shareholders may convene the meeting themselves, providing it is within three months of the request. Directors must also call a general meeting in the event of a serious loss of capital.

Normally, the chairman of the board of directors will act as chairman of a general meeting. It is the duty of the chairman to preserve order, see that the proceedings are conducted, take care that the sense of the meeting is properly ascertained, and decide incidental questions arising for decision during the meeting. A resolution put to a meeting is sometimes decided in the first instance by a show of hands. A more accurate method of ascertaining the wishes of the members of a company is to take a poll. This allows proxy votes to be counted, and pays due regard to a member holding a large number of shares (who would have only one vote on a show of hands). A poll can be demanded by five members having the right to vote, by one or more members having 10% of the total voting rights, or by the chairman. A proxy may demand, or join in demanding, a poll.

There are two main kinds of resolution that can be considered at a general meeting.

- An ordinary resolution is the standard type, and requires a simple majority of those voting in order to be passed.
- A special resolution is required before any important constitutional changes can be undertaken, and this requires a 75% vote in favour to be passed.

Proxy votes

Any member entitled to attend and vote at a company meeting may appoint another person (the proxy) to attend and vote on their behalf. A proxy has the right to vote on a show of hands and in a poll. A proxy is valid for the general meeting and any adjournment, and can take one of two forms:

- A **general proxy**, appointing a person to vote as they think fit, bearing in mind what is said at the meeting.
- A **special proxy**, appointing a person to vote for or against a particular resolution (termed a 'two-way proxy').

Each person entitled to vote at the meeting must be sent a proxy form when they are sent the notice convening the meeting. The form must state that a shareholder is entitled to appoint a proxy of their own choice. Where a proxy form is returned without an indication as to how the proxy is to vote, then the proxy is deemed to be a general proxy. It is the duty of the chairman of the meeting to decide on the validity of the proxies.

CHAPTER 1 SECTION 7

INTERNATIONAL MARKETS

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Explain the structure, features, regulatory and trading environment of international markets, including developed markets and emerging markets.
- Explain the structure and operation of the primary and secondary markets for eurobonds.
- Explain the settlement and clearing procedures overseas, including the role of international central securities depositories, and the different settlement cycles and challenges in managing global assets.

1. INTERNATIONAL SECURITIES MARKETS

1.7.1 Explain the structure, features, regulatory and trading environment of international markets, including developed markets and emerging markets

Both retail and institutional investors invest in overseas securities markets. There are potential diversification benefits for investors where the returns on domestic and overseas securities are less than perfectly correlated. Emerging markets such as Brazil and China outperformed developed markets before 2008 and, since then, other emerging markets in South East Asia have delivered significantly higher returns than developed economies.

One specific concern with overseas investment is foreign exchange risk. This means that investors have to take into account changes in the value of the domestic currency with the currency of the market where the investment has taken place. This can increase or reduce actual returns on an overseas investment.

Retail investors are more likely to achieve international exposure through mutual funds and ETFs, whereas institutional investors may seek international exposure by buying securities in overseas markets. This brings additional considerations and/or risks as the structure and regulation of overseas markets are likely to be different. However, it is less of an issue in European equity markets where a number of directives, including MiFID and the Prospectus Directive, have harmonised regulations across the EU.

Most trading of equities on European securities markets takes place on electronic order-matching systems. In the US, the largest equity market, the New York Stock Exchange (NYSE), operates a floor-based specialist system of stock trading. On the trading floor, there are several trading posts, and each stock traded is centralised at that stock's assigned trading post. The designated market makers (DMMs), who are assigned specific trading posts (and thus specific stocks), act in a way that maintains an 'orderly market'. Member firms' floor brokers and 'local' brokers all trade through these DMMs.

The primary order processing system in the NYSE is the Universal Trading System (UTS). The UTS supports equity trading on the trading floor and provides the NYSE with the current status of any equity order. NYSE member firms can input orders (in a similar way to SETS) and these go directly to the trading post where the security is traded.

Investing in emerging equity markets presents a number of unique challenges. Primarily, the quality of market regulation, corporate governance, transparency and accounting standards is often below developed markets. These factors make it harder to appropriately price securities and as such increase the risk of mispricing. Additionally, there are more likely to be political risks in emerging markets, whether it is from corruption or even coups and civil wars (Ukraine and Syria are two recent examples).

For these reasons, stock market returns in emerging markets are more volatile. Emerging markets are also seen as risky by overseas investors. As such, in strained global macroeconomic situations, investors from developed countries – who often own a lot of stock in emerging markets – will abandon their positions in emerging markets first, which causes volatility in emerging market indices. Emerging market indices tend to rise faster than developed markets during periods of strong global market sentiment, but fall faster when that sentiment turns negative.

Other issues with investing in emerging markets include regulatory limits on overseas investments that can change at short notice, making it difficult to sell a security. More generally, emerging markets may be less liquid than developed stock markets.

2. EUROBOND MARKETS

1.7.2 Explain the structure and operation of the primary and secondary markets for Eurobonds

Eurobonds are bonds that are denominated in a currency other than that of the country in which they are issued. Like most bonds, eurobonds are usually fixed-rate, interest-bearing notes, although many are also offered with floating rates and other variations. Eurobond characteristics are discussed in chapter 12, section 2.

Eurobonds are so-called ‘bearer bonds’ – they are not registered centrally, so whoever holds or bears the bond is considered the owner. Their ‘bearer’ status also enables eurobonds to be held anonymously. It is difficult to determine the client base for these securities, however it is generally agreed that holders of eurobonds include both private individuals seeking to mitigate liability to tax, and institutional investors who hold them as part of diversified portfolios.

Since it began in the 1960s, the market for eurobonds has grown dramatically. By some measures it is now the largest capital market in the world. A variety of institutions raise money through the issue of eurobonds, including industrial corporations, banks, public sector bodies and supranational organisations. Eurobonds are not regulated by the country of the currency in which they are denominated.

There are several participants in issuing eurobonds:

- The issuer, or borrower, that needs to raise funds by selling bonds. The borrower approaches a bank and asks for help in issuing its bonds.
- This bank is known as the lead manager and may ask other banks to join it to form a managing group that negotiates the terms of the bonds and manages the issue. The managing group sells the bonds to an underwriter or directly to a selling group. The three levels – managers, underwriters, and sellers – are known collectively as the syndicate.

- The underwriter will actually purchase the bonds at a minimum price and assume the risk that it may not be possible to sell them on the market at a higher price. The underwriter (or the managing group if there is no underwriter) sells the bonds to a selling group that then places bonds with investors.

The syndicate companies and their investor clients are considered the primary market for eurobonds. Once they are resold to general investors, the bonds enter the secondary market. Participants in the market are organised under the International Capital Markets Association (ICMA). In the secondary market, eurobonds are traded OTC. Major markets for eurobonds exist in London, Frankfurt, Zurich and Amsterdam.

3. SETTLEMENT IN OVERSEAS SECURITIES MARKETS

1.7.3 Explain the settlement and clearing procedures overseas, including the role of international central securities depositories, and the different settlement cycles and challenges in maintaining global assets

There are many different features for dealing and settlement in overseas markets. Settlement systems are national and each country has its own settlement arrangements for different types of instruments. Participation is generally limited to locally regulated participants.

As a general rule, government and quasi-government bills, bonds and notes are traded OTC between banks, and settled through settlement systems operated by central banks. These systems may not provide a guarantee, i.e. they are not linked with a clearing company or a central counterparty, though they do have a link for payment into real-time gross settlement systems where they exist. Corporate bonds are generally listed and traded through the central clearing depository systems associated with the exchange. Many of the central securities' depositories are linked with the international depositories.

Some countries (e.g. Korea) settle bond transactions on a rolling basis and T+1 to facilitate use of a delivery versus payment settlement system: obligations are calculated on a gross trade-by-trade basis without netting for both securities and cash. The G30, a consultative group on international economics, has published recommendations for good practice in this area, including T+3 settlement for equities. In some countries, such as Thailand, shares are registered in a central depository and a matching system for trading exists to ensure transactions are settled as agreed. Settlement is at T+3.

In general, a local custodian is responsible for the safekeeping of securities in a given national market, while a global custodian co-ordinates and supervises the safekeeping of securities in local depositories. Links between the different parties reduce the risk of errors and are not as well developed in emerging markets as in mature ones.

Non-electronic settlement systems are still used in some markets, and securities are physically transferred between buyer and seller. Many emerging markets do not have a central depository. Clearly, ownership rights for securities should be exchanged simultaneously with payment and cannot be reversed.

Eurobond settlement

There are currently two systems available to investors for settling eurobond transactions: Euroclear and Clearstream. Both Euroclear and Clearstream provide:

- securities clearance and settlement services;
- money transfer and banking services associated with securities settlement;
- custody services;
- securities lending; and
- borrowing services.

ICMA rules currently specify settlement on T+2, but all trades should be confirmed on T+1. Once reported, the trade is validated and then matched to await execution. Euroclear and Clearstream are linked electronically, which allows member organisations to use either system.

CHAPTER 1 SECTION 8

THE PRINCIPAL-AGENT PROBLEM: SEPARATION OF OWNERSHIP AND CONTROL

🎯 SECTION AIMS

By the end of this section, learners should be able to:

- Explain how capital markets allow the beneficial ownership, and the control of capital, to be separated.
- Distinguish between beneficial owners (principals) and the various agents involved in the capital allocation process.
- Explain how conflict between the interests of agents and principals gives rise to the 'agency' or 'principal-agent' problem.
- Identify examples of agency costs such as: expropriation, perquisites, self-dealing and higher cost of capital, which arise when the agency problem is known to exist.
- Identify the main reasons why it is argued that reducing the agency problem benefits the investment profession and society as a whole.

1. THE PRINCIPAL-AGENT PROBLEM

- 1.8.1 Explain how capital markets allow the beneficial ownership, and the control of capital, to be separated
- 1.8.2 Distinguish between beneficial owners (principals) and the various agents involved in the capital allocation process
- 1.8.3 Explain how conflict between the interests of agents and principals gives rise to the 'agency' or 'principal-agent' problem
- 1.8.4 Identify examples of agency costs such as: expropriation, perquisites, self-dealing and higher cost of capital, which arise when the agency problem is known to exist
- 1.8.5 Identify the main reasons why it is argued that reducing the agency problem benefits the investment profession and society as a whole

Stock markets allow for the ownership of a company to be separate from its control. Where the owner of a company also manages it, then ownership and control are aligned. However, where the ownership of a company is dispersed through the issue of shares, then it is not possible for the owners to control the company. Instead, owners appoint managers to run the company on their behalf. This gives the managers discretion over use of the owners invested funds. The owners are the principals in the relationship, and the managers are the agents of the owners. Generally, managers do not own significant amounts of shares in the company.

This separation leads to the principal-agent problem (also called the agency problem), which arises because owners and managers generally have different interests. Owners want to maximise the value of the firm, while managers want to maximise their own interests such as salary, vanity projects and expenses. It is unlikely that the managers' pursuit of their own interests will maximise a firm's value. Managers may use the discretion they have for self-dealing, that is, to divert corporate wealth to themselves. They may expropriate owners' funds by, for example, embezzling funds or transferring ownership of assets to themselves or family members. This form of 'agency cost' is generally low in developed countries, but is still a problem in developing countries where investor protection regulation is less developed. A more common form of agency cost in developed countries is the allocation of owners' funds for managers' personal consumption or perquisites, such as bigger expense accounts or corporate jets.

Solutions to the principal-agent problem include:

- Aligning incentives of managers and owners by compensating managers partly in the form of shares (or future shares in the case of stock options). This means managers are incentivised to make decisions that lead to a rise in the share price as they, along with the owners, will benefit.
- Managers being monitored by the board of directors. Owners appoint board members to look after their interests and the board can remove under-performing managers.

- Introducing external pressure by selling shares if the managers are running the company badly. If enough shareholders sell shares, the price will fall, which could make the company a takeover target. The threat of takeover (which often results in the incumbent management losing their jobs) gives managers the incentive to look after the interest of shareholders.

Shareholder activism – where groups of shareholders (often large fund managers) voice their concerns to directors – has become more prevalent in recent years.

Many of these solutions introduce costs, for example the cost of giving share options to managers. Such costs are referred to as ‘agency costs’.

The principal–agent problem occurs in many areas of the investment industry. For example, an investor (the principal) who appoints a broker (the agent) to obtain the best price in a trade expects the agent to act in their interest, but the agent may pursue their own self-interest. The broker, on receiving a large order to buy, may place an order to buy for themselves to take advantage of the rise in price anticipated by the large order from the client (a practice known as front-running).

Where a firm operates as both a broker and a dealer, it is said to have dual capacity. Such a firm is referred to as a broker-dealer. Firms operating with dual capacity expose themselves to the conflict of interest problem just described, i.e. the principal-agent problem. The duty as a broker is to act in the best interest of the client. As dealer, they are acting in their own interest or the interest of their owners.

In most situations, the investment professional puts the interests of the client first, but this has not always happened. Many examples of investment professionals pursuing their own interests ahead of their clients exist, such as Bernard Madoff turning a wealth management scheme into a Ponzi scheme (where the cash invested by new investors was used to pay the returns to existing investors).

When financial services professionals pursue their own interests and cause harm to their clients, this can lead to a lack of trust in the products and processes in the entire industry. This, in turn, may lead savers to not lend as much, which reduces funds for companies that need to borrow and can slow the rate of growth in the economy. Such unethical behaviour can be mitigated by regulation (see chapter 3) or by raising ethical awareness and standards in the industry (see chapter 2).

CHAPTER 01 KEY FACTS

1.1 Introduction to financial markets

1. The financial services industry provides four main functions: financial intermediation, pooling and managing risk, provision of payment and settlement services, and portfolio management.
2. The main types of financial institutions are central banks, deposit institutions (such as banks) and investment institutions (such as insurance companies, collective investment funds and pension funds).
3. Governments perform four important economic functions: the provision of certain goods and services (e.g. defence), regulation of markets to protect consumers, improving the distribution of incomes through taxation and welfare payments, and maintaining economic stability.

1.2 The role of securities markets in providing liquidity and price transparency

1. Real assets are physical assets such as land, buildings and gold. Financial assets are claims representing the right to some return (such as a bank deposit or bond) or to ownership of physical assets.
2. The main functions of securities markets are:
 - Raising capital.
 - Transferring risk.
 - Price discovery.
 - Creating liquidity.
3. Primary markets are where initial sales of securities are made. Subsequent trading takes place in the secondary market.
4. Round-trip transaction costs are the total costs of completing a transaction, including bid–ask spread, commissions and taxes.

1.3 Types of financial markets

1. The London Stock Exchange operates an order-driven system called SETS for FTSE 100, FTSE 250 and FTSE Small Cap constituents, and a quote-display system called SEAQ for fixed-interest securities and AIM securities.

2. Less liquid stocks, listed on the main market, are traded on SETSqx, which combines a periodic auction book along with quote-driven market making.
3. UK government bonds are known as 'gilts', and the Debt Management Office is the department of the Treasury responsible for gilt issuance, usually via an auction.
4. Corporate bonds may be issued via an open offer or private placement. The former can involve a bought deal or fixed price re-offer.
5. Dual listing is when two corporations function as a single operating business, but retain separate legal identities and stock exchange listings.
6. An over-the-counter (OTC) market involves trading in a decentralised way rather than on an exchanges.

1.4 Settlement procedures in the UK

1. CREST is the London Stock Exchange's electronic settlement system, which settles on a T+2 basis for equities and a T+1 basis for gilts.

1.5 The UK-listing authority and prospectus requirements

1. In the UK, the Financial Conduct Authority (FCA) is the 'competent authority' (or, colloquially, the UK-listing authority) to decide on the admission of securities to the Official List.
2. Listing on the main market requires at least three years of published accounts, and over £700,000 of listed stock or £200,000 of debt securities.
3. AIM is regulated by the London Stock Exchange, and there is no minimum criterion for size, trading record or shares in public hands.

1.6 Information disclosure and corporate governance requirements for UK equity markets

1. Directors, major shareholders and concert parties must declare share interests.
2. The corporate governance system in the UK has traditionally stressed the importance of internal controls and the role of financial reporting and accountability, rather than external legislation.
3. When a company is listed on the London Stock Exchange, it agrees to abide by the continuing obligations of listed companies. The rules encourage companies to release new information to the market on a regular basis.

4. Every public company is required to hold an annual general meeting (AGM) within six months of the end of their financial year, and the interval between AGMs must not be more than 15 months.
5. Any meeting of a company other than an AGM is called a 'general meeting'. General meetings must be called by giving not less than 14 calendar days' written notice, and companies are permitted to communicate with their shareholders electronically.
6. Any member entitled to attend and vote at a company meeting may appoint another person (the proxy) to attend and vote on their behalf.

1.7 International markets

1. Government bond trading in other countries often involves local banks trading OTC, with settlement via the central bank. Corporate bonds are often listed and traded through central clearing depository systems associated with local exchanges.
2. Euroclear and Clearstream are the two main systems currently available for settling eurobond transactions. All trades must be confirmed T+1 and settled T+2.

1.8 The principal–agent problem: separation of ownership and control

1. The separation of ownership and control leads to the principal–agent problem.
2. In capital markets, shareholders act as principals and delegate control to managers, who are agents.
3. Other forms of principal–agent relationship in the investment industry include fund advisers or managers acting as agents for investors.
4. Solutions to the agency problem incur agency costs, and include:
 - Aligning the interests of managers and owners through remuneration of the former in shares or stock options.
 - Boards of directors looking after the interests of shareholders.
 - External control through active groups of shareholders or the threat of takeover.

CHAPTER 01 SELF-ASSESSMENT QUESTIONS

1. Which of the following is a deposit-accepting institution?
 - (a) *A mutual fund.*
 - (b) *A commercial bank.*
 - (c) *An investment trust.*
 - (d) *A pension fund.*

2. How is the process for trading ordinary FTSE 100 shares best described?
 - (a) *Quote-driven.*
 - (b) *Order-driven.*
 - (c) *Open outcry.*
 - (d) *Price-driven.*

3. UK gilts usually pay:
 - (a) *Gross coupons annually.*
 - (b) *Net coupons annually.*
 - (c) *Net coupons semi-annually.*
 - (d) *Gross coupons semi-annually.*

4. Which body regulates derivatives exchanges in the UK?
 - (a) *The Securities and Exchange Commission.*
 - (b) *The Financial Conduct Authority.*
 - (c) *The Bank of England.*
 - (d) *The Prudential Regulation Authority.*

5. The issuance of gilts is managed by which of the following bodies?
 - (a) *The Gilt-Edged Market Makers Association.*
 - (b) *The Central Gilts Office.*
 - (c) *CRESTco.*
 - (d) *The Debt Management Office.*

6. The standard settlement time for gilts is:
- (a) Same day.
 - (b) $T+1$.
 - (c) $T+2$.
 - (d) $T+3$.
7. What term best describes the settlement procedure for CREST?
- (a) Physical settlement.
 - (b) Certified settlement.
 - (c) Paperless settlement.
 - (d) Materialised settlement.
8. Which organisation is responsible for setting rules for trading in the eurobond market?
- (a) International Capital Markets Association.
 - (b) Euroclear.
 - (c) The Financial Conduct Authority.
 - (d) The Securities and Exchange Commission.
9. Somebody who wants to appoint another person to vote as they think fit on their behalf at a company meeting would appoint:
- (a) Two-way proxy.
 - (b) General proxy.
 - (c) Agent proxy.
 - (d) Special proxy.
10. The Financial Reporting Council (FRC) principles aim to make institutional investors actively engage in corporate governance in the interests of their beneficiaries. These are known as the:
- (a) The UK Corporate Governance Code.
 - (b) The Agency Code.
 - (c) The Takeover Code.
 - (d) The UK Stewardship Code.

11. An investor would be required to notify the company if their stake goes from:

- (a) 3.1% to 4.2% of company shares.
- (b) 3.1% to 3.9% of company shares.
- (c) 1.9% to 2.7% of company shares.
- (d) 10.9% to 10.1% of company shares.

12. A company wishing to list shares on the main market must ensure these securities have a minimum market capitalisation of at least:

- (a) £200,000.
- (b) £700,000.
- (c) £900,000.
- (d) £1,000,000.

ANSWERS

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1. (b) Only banks accept deposits to fund their assets. All the other institutions are investment institutions.
 2. (b) FTSE 100 shares are traded on SETS, which is an electronic order matching system. Trading is order-driven.
 3. (d) UK gilts pay interest semi-annually and pay interest gross on new holdings unless the holder indicates otherwise.
 4. (b) The FCA is the regulator for all recognised investment exchanges in the UK.
 5. (d) The DMO is the body responsible for gilt issuance and general management of the UK government issued debt.
 6. (b) The standard settlement time for gilts through CREST is T+1 (i.e. one working day after transaction).
 7. (c) Settlement through CREST is electronic and hence paperless.
 8. (a) Eurobonds are normally traded OTC and the rules for trading are set by the ICMA.
 9. (b) There are two main types of proxy – a general proxy and a special proxy. A general proxy is able to vote as they see fit at the general meeting, whereas a special proxy has to vote in a way specified before the meeting takes place.
 10. (d) The UK Stewardship Code aims to make shareholders, who manage other people's money (institutional shareholders), active and engage in governance in the interests of their beneficiaries.
 11. (a) Shareholders who already have a stake in the company above 3% are required to notify the company when their stake increases by more than 1%.
 12. (b) For both a premium and standard listing on the main market the minimum value of the shares listed must be £700,000.
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LINK TO CFA LEVEL 1

The material in this chapter is mainly UK-focused and is therefore not covered in CFA Level 1.