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**Financial markets and the importance of capital market
instruments**

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Financial Markets and the importance of capital market instruments

The financial markets can be said to be an integration of market participants, the trading and regulatory environment (which includes stock and futures exchanges) and market instruments. These instruments can be further divided into cash securities and derivatives. Securities are known as cash market instruments (or simply *cash*) because they represent actual cash by value. A security product is issued by the party requiring finance, and such represents a liability to the issuer. Conversely a security is an asset of the buyer or holder. Contrary to what might be thought given the publicity and literature emphasis on derivatives, financial markets are first and foremost cash securities, with the market itself being, in essence a derivative of the wider economy.

Financial market instruments are the vital tools through which market participants practice intermediation, the bringing together of the providers and users of capital. Without this intermediation, the global economy could not function, indeed it could not have developed beyond its state in the Middle Ages. As such, it is vital for all market participants to:

- possess a good understanding of the instruments and their use;
- be able to analyse and value efficiently and accurately the instruments themselves.

Debt capital market securities are defined primarily in terms of their issuer, term to maturity and currency. They may also be categorised in terms of:

- the rights they confer on the holder, such as voting and ownership rights;
- whether they are unsecured or secured against fixed or floating assets;
- the cash flows they represent;
- how liquid they are, that is the ease with which they can be bought and sold in the secondary market;
- their structure, for example if they are hybrid or composite securities, or whether their return or payoff profile is linked to another security.

The characteristics of any particular security influence the way it is valued and analysed. Debt securities originally were issued with an annual fixed interest or *coupon* liability, stated as a percentage of *par* value, so that their cash flows were known with certainty during their lifetime. This is the origin behind the term *fixed income* security, although for there many different types of debt security issued that do not pay a fixed coupon.

Capital market financing

A corporate entity can raise finance in a number of ways, and the flow of funds within an economy, and the factors that influence this flow, play an important part in the economic environment in which a firm operates. As in any market, pricing factors are driven by the laws of supply and demand, and price itself manifests itself in the *cost of capital* to a firm and the *return* expected by investors who supply that capital. Although we speak in terms of a corporate firm, many different entities raise finance in the capital markets. These include sovereign governments, supranational bodies such as the World Bank, local authorities and state governments, and public sector bodies.

The key distinction in financing arrangements is between *equity* and *debt*. Equity finance represents ownership rights in the firm issuing equity, and may be raised either by means of a share offer or as previous year profits invested as retained earnings. Equity finance is essentially permanent in nature, as it is rare for firm's to repay equity; indeed in most countries there are legal restrictions to so doing.

Debt finance represents a loan of funds to the firm by a *creditor*. A useful way to categorise debt is in terms of its maturity. Hence very short-term debt is best represented by a bank overdraft or short-term loan, and for longer-term debt a firm can take out a bank loan or raise funds by issuing a bond. Bonds may be secured on the firm's assets or unsecured, or they may be issued against incoming cash flows, which is known as securitisation. The simplest type of bond is known as a *plain vanilla* or *conventional* bond, or in the US markets a *bullet* bond. Such a bond features a fixed *coupon* and fixed *term to maturity*, so for example a US Treasury security such as the 6% 2009 pays interest on its nominal or face value of 6% each year until 15 August 2009, when it is redeemed and principal paid back to bondholders.

A firm's financing arrangements are specified in a number of ways, which include:

- the *term* or maturity: financing that is required for less than one year is regarded as short-term, and money market securities are short-term in this way. Borrowing between one year and 10 years is considered medium-term, while longer-dated requirements are regarded as long-term. There is permanent financing, for example preference shares;
- size of funding: the amount of capital required;

- the *risk* borne by suppliers of finance and the *return* demanded by them as the cost of bearing such risk. The risk of all financial instruments issued by one issuer is governed by the state of the firm and the economic environment in which it operates, but specific instruments bear specific risks. Secured creditors are at less risk of loss compared to unsecured creditors, while the owners of equity (shareholders) are last in line for repayment of capital in the event of winding-up of a company. The return achieved by the different forms of finance reflects the risk exposure each form represents.

A common observation is that although shares and share valuation are viewed as treated as very important in finance and finance text books, in actual cash terms they represent a minor source of corporate finance. Statistics indicate that the major sources of funding are retained earnings and debt.

Derivative instruments

The principal financial derivatives are forwards, futures, swaps and options. The importance of these instruments in the financial markets, and the contribution they have made to market efficiency and liquidity, cannot be overstated. Compared to a cash market security, a derivative is an instrument whose value is linked to that of an underlying asset. An example would be a crude oil future, the value of which will track the value of crude oil. Hence the value of the future derives from that of the underlying crude oil. Financial derivatives are contracts written on financial securities or instruments, for example equities, bonds or other financial derivatives.

Forward contracts

A forward contract is a tailor-made instrument, traded *over-the-counter* (OTC) directly between the counterparties, that is agreed today for expiry at a point in the future. In the context of the financial markets a forward involves an exchange of an asset in return for cash or another asset. The price agreed for the exchange is agreed at the time the contract is written, and is made good on delivery, irrespective of the value of the underlying asset at the time of contract expiry. Both parties to a forward are obliged to carry out the terms of the contract when it matures, which makes it different to an *option* contract.

Futures contracts

Futures contracts or simply futures are exchange-traded instruments that are standardised contracts; this is the primary difference between futures and forwards. The first organised futures exchange was the Chicago Board of Trade, which opened for futures trading in 1861. The basic model of futures trading established in Chicago has been adopted around the world.

Essentially futures contracts are standardised, that means each contract represents the same quantity and type of underlying. The terms under which delivery into an expired contract is undertaken is also specified by the exchange. Traditionally futures were traded on an exchange's floor (in the "pit") but this has been increasingly supplanted by electronic screen trading, so much so that by January 2001 the only trading floor still in use in London was that of the International Petroleum Exchange. The financial futures exchange, LIFFE, now traded exclusively on screen. Needless to say, the two exchanges in Chicago, the other being the Chicago Board Options Exchange, retained pit trading.

Swap contracts

Swap contracts are derivatives that exchange one set of cash flows for another. The most common swaps are interest-rate swaps, which exchange (for a period of time) fixed-rate payments for floating-rate payments, or floating-rate payments of one basis for floating payments of another basis.

Swaps are OTC contracts and so can be tailor-made to suit specific requirements. These requirements can be in regard to nominal amount, maturity or level of interest rate. The first swaps were traded in 1981 and the market is now well developed and liquid. Interest-rate swaps are so common as to be considered "plain vanilla" products, similar to the way fixed-coupon bonds are viewed.

Option contracts

The fourth type of derivative instrument is fundamentally different from the other three products we have just introduced. This is because its payoff profile is unlike those of the other instruments, due to the optionality element inherent in the instrument. The history of options also goes back a long way, however practical use of financial options is generally thought of as dating from after the introduction of the acclaimed Black-Scholes pricing model for options, which was first presented by its authors in 1973.

The basic definition of option contracts is well known. A *call option* entitles its holder to buy the underlying asset at a price and time specified in the contract terms, the price specified being known as the *strike* or *exercise* price, while a *put option* entitles its holder to sell the underlying asset. A European option can only be exercised on maturity, while an American option may be exercised by its holder at any time from the time it is purchased to its expiry. The party that has sold the option is known as the writer and its only income is the price or *premium* that it charges for the option. This premium should in theory compensate the writer for the risk exposure it is taking on when it sells the option. The buyer of the option has a risk exposure limited to the premium he paid. If a call option strike price is below that of the underlying asset price on expiry it is said to be *in-the-money*, otherwise it is *out-of-the-money*. When they are first written or struck option strike prices are often set at the current underlying price, which is known as *at-the-money*.

Connecting debt financial market instruments

Financial market participants generally all use the same class of instruments and hence there is a close relationship between all of them, and their application. This relationship and interaction is a central theme of the “Choudhry” series of books on debt capital markets.

The main financial market participants are banks, insurance companies, fund managers, investment banks and hedge funds. They all transact business using the following products.

The money markets: the market in short-term debt, vital for all institutions to enable them to raise short-term working capital in an efficient manner. The market is made up of banks and other financial firms borrowing and lending cash, and managing risk exposure of this business using derivatives. A key segment of the money market is that in secured cash borrowing and lending, known as the repo market. The **repo market** enables banks to maintain liquidity, since by using repo firms can finance asset positions and also make good delivery on “short” sales.

The efficient management of the money market operation in any firm is known as **asset-liability management**. This is the practice of structuring a firm’s assets and liabilities in the most efficient manner to maximise income and minimise risk, and is practised by all financial firms.

The global **fixed income markets** oversee all this activity. It is comprised of a diverse range of products, and market trading conventions. It is vital for all participants to be familiar with market mechanics and analytics, to facilitate efficient use of the products. The fastest-growing sector of the fixed income market is that in credit derivatives and **structured credit products**. The **credit derivatives** market has grown spectacularly, in a relatively short time, to become a key component of the capital markets and one which embraces a wide range of participants. At the same time, so-called synthetic securitisation structures have grown in size such that they match, in nominal terms, the size of the cash-based securitisation market.

A key risk run by investors in bonds or loans is credit risk, the risk that the bond or loan issuer will default on the debt. To meet the need of investors to hedge this risk, the market uses credit derivatives. These are financial instruments originally introduced to protect banks and other institutions against losses arising from default. As such they are instruments designed to lay off or take on credit risk. Since their inception, they have been used by banks, portfolio managers and corporate treasurers to enhance returns, to trade credit, for speculative purposes and as hedging instruments.

The use of credit derivatives assists banks and other financial institutions with restructuring their businesses, because they allow banks to repackage and parcel out credit risk, while retaining assets on balance sheet (when required) and thus maintain client relationships. As the instruments isolate certain aspects of credit risk from the underlying loan or bond, it becomes possible to separate the ownership of credit risk from the other features of ownership associated with the credit-risky assets in question; in other words, we can isolate credit as an asset in its own right. It is this flexibility that has given rise to the market in structured credit products such as synthetic CDOs, which exist in many varieties. Both these products, in their plain vanilla credit derivative form and their more structured CDO form, are a positive development for market participants and an advancement for the capital markets, as they have simply furthered the process of disintermediation that began originally with the establishment of capital markets, bringing the lenders and borrowers of capital closer together. And this, we can all agree, is a good thing.

Finally, all financial markets are concerned with the level of interest rates, this being the cost of money. **The yield curve** is the key financial indicator, it is continually analysed used as a snapshot of the health of the economy overall.

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