2. INTERNATIONAL FINANCIAL MARKETS

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2. INTERNATIONAL FINANCIAL MARKETS G A WALKER

2.1 National and international financial systems are made up of a number of separate or specific markets and sub-markets. These principally consist of the money and capital markets as well as derivatives markets, currency, gold and commodities and insurance markets. The capital and money markets both include separate (issuance) primary and secondary (trading) markets. Markets may either operate on an organised, exchange or telephone or computer (over-the-counter (OTC)) basis and possibly either involve cash (immediate) or forward (postponed payment) contracts.

2.2 Financial markets carry out a number of essential services including savings (deposit), loan (credit), payment (paper or electronic), investment and risk management (insurance). Risk cover can either be provided through insurance contracts (including life and non-life or contingent liability insurance) or through specialised instruments such as performance bonds or financial derivatives (including futures, options and swaps or other hybrid products). Organised markets or exchanges carry out a number of important functions including price discovery or disclosure, trading or dealing, clearing and settlement, and trade and transaction reporting.[1]

2.3 The legal significance of all of these markets and instruments is that they are based on legally enforceable contracts or claims. This can either be expressed as a form of a debt obligation entered into between a bank (or group of banks) and the customer or in a transferable form of security instrument. While traditionally recorded in the form of a written contract or security instrument, these claims have increasingly become issued in an electronic form and transferred or traded through electronic systems. The idea of an enforceable claim nevertheless underlies all of these instruments, including earlier bills of exchange, promissory notes (including bank notes), term loans and syndicated loans, bonds or notes, equity instruments, financial derivatives or dematerialised (fully electronic) debt and equity holdings.

2.4 In considering this in further detail, a basic distinction can be drawn between money and capital or securities markets are the two main sets of markets that form the basis of any financial system. Other markets then include the international finance, derivatives, currency, gold, commodity and insurance markets.

1. MONEY MARKETS

2.5 The money markets constitute the short-term markets for financial and debt instruments including certificates of deposit, treasury bills, commercial paper and bankers' acceptances or bank deposits. These are mainly wholesale markets that allow financial institutions to lend to and borrow from each other for short term liquidity purposes. The money markets are also used by the central banks for money market purposes and, in particular, to control the volume and price (interest rate) of money in circulation. Instruments are usually of a short-term nature from over-night to up to one year. The main types of money market instruments (MMIs) consist of government bonds, bills and gilts,[2] bankers' acceptances, certificates of deposit and commercial paper.

2.6 Government bonds are debt instruments used for borrowing (fiscal deficit) or capital spending purposes. Treasury bills (T-bills) are short-term debt instruments. These are usually issued at a discount by tender or option. US treasuries include Treasury bills (up to one year), Treasury notes (1-10 years) and Treasury bonds (over 10 years). The US treasury market is the largest securities market in the world. The instruments are issued by the United States Department of the Treasury through the Bureau of the Public Debt. While T-bills are sold at a discount without interest, T-notes and T-bonds pay interest on a 6-monthly basis. T-bills are sold weekly by option, mainly through primary dealers. The ten-year note is generally used to measure the performance of the US economy. This replaces the earlier 30-year T-bond ('long bond') that was discontinued in October 2001.

2.7 UK government bonds are referred to as gilt-edged securities (after the cerated gold edge on the certificate although paper instruments are now green). These include 'short deals' (less than five years), 'mediums' (5-10 years) and 'longs' (over ten years). Most gilts are redeemable ('straights') although some irredeemables or undated gilts were issued. Only a limited number of undated gilts are still traded. A proportion of gilts are also 'index-linked' which ties their coupon payments to the Retail Prices Index (RPI).

2.8 Bankers' acceptances are accepted bills which means that a regulated bank has signed the bills to attach its credit and to confirm its obligation to pay under the bill. This is distinct from 'trade acceptances' or trade bills under which a merchant undertakes to pay on the bill. Acceptance houses are a specialist group of merchant banks that made their money principally from accepting bills of exchange sent to London from overseas. Once bills have been accepted, they can be sold to other specialist banks or discount houses which pay the face value of the bill less a discount calculated having regard to the amount of interest due on the remaining maturity of the bill.

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[1] G A Walker 'Stock Markets and Exchanges' in M Blair and G A Walker and (eds), *Financial Services Law* (Oxford University Press, 2006).

[2] Gilts are marketable sterling government bonds issued on behalf of the UK Government through the Debt Management Office (DMO) as part of its debt management responsibilities. Paras 2.13 and 2.18-22. See also http://www.dmo.gov.uk.

2.9 Certificates of deposit (CDs) are negotiable instruments evidencing an underlying deposit. These are separately tradable as money market instruments separate from the underlying deposit.[3] Commercial papers are short-term promissory notes issued by governments, large corporates or international or national financial institutions.[4] Commercial paper is generally dealt with in the money markets rather than capital markets, due to its short-term nature.

(1) Primary Money Market

2.10 The primary money market in the UK has traditionally been referred to as the Discount Market as the Bank of England has historically only dealt with the limited number of specialist bask referred to as discount houses. Discount houses accept deposits or short term wholesale funds and trade in short term financial instruments including treasury bills, short dated public sector stock, commercial bills and certificates of deposit. Public stock may include government gilt edged securities or local authority bonds. Commercial bills may either be discounted or re-discounted (purchased from the original issuer or a secondary holder) or traded. Discount houses place short term deposits with banks and building societies through the purchase of other short term instruments. Discount houses also underwrite the weekly Treasury Bill tender. Equivalent operations are carried on through the discount window in the US.

2.11 The UK discount market has been subject to significant change in recent years. Trading in gilt edged securities increased substantially following the major reforms carried out on the London Stock Exchange in October 1986 (referred to as the 'Big Bang'). The earlier 'club money' arrangement was terminated where acceptance houses had to hold a certain amount of funds with discount houses while the Bank of England has increased the use of sale and repurchase agreements ('repos') to supply funds to banks without use of the discount market. The number of institutions eligible to participate in the primary money market has also been extended following an earlier period of takeover and consolidation of traditional London discount houses during the 1970s and 1980s.[5] Around 16 institutions now operate in the primary money market in the UK.

2.12 A repurchase agreement (RP or repo) is a sale and repurchase agreement. These are used to obtain better (finer) rates of interest through the provision of intermediate collateral. These essentially consist of a cash or spot sale of a security or other asset with a forward repurchase at an agreed price. The price will incorporate an equivalent interest rate (referred to as the repo rate. Japanese repos are referred to *Gensaki*. A 'reverse repo' (or 'matched sale') is the opposite or obverse transaction with the cash provider having the securities repurchased from them. This would, for example, apply with regard to dealers using repos to obtain securities for delivery or settlement purposes. Other forms of repo transaction include 'tri-party repos' (with an intermediate custodian), 'equity' rather than bond repos or 'whole loan' repos (using a loan or other asset such as mortgage receivables as security). A 'sale-buy back' or 'buy-sale back' is a 'split repo' with two separate cash and forward transactions. Repos are generally issued under master agreements (such as the Global Master Repurchase Agreement (GMRA) produced by the Bond Market Association (BMA) and and the International Capital Markets Association (ICMA). The US and European repo markets are issued in amounts in excess of US$5 trillion and €5 trillion outstanding respectively.[6]

(2) Secondary Money Markets

2.13 The parallel or secondary money markets consist of a number of separate markets for the issuance and trading of other non-governmental or central bank short term bills or other money instruments. These principally consist of the local authority market, finance house market, inter-company market, sterling inter-bank market and sterling certificates of deposit (CDs) and sterling commercial paper (CP) market. Dealings are unsecured and not supported by the Bank of England. No formal trading floors exist with dealings being conducted by telephone or on screen on an OTC basis. A number of financial institutions operate in more than one market which creates overlapping memberships.

(a) Local Authority Market

2.14 The local authority market began in the mid-1950s following the closure of the earlier Public Work's Account which restricted local authorities' access to central government funding. Local authorities accordingly began to issue increased numbers of bills (of exchange) and bonds (debentures) as well as wholesale bank loans. Implied Treasury support was provided although no formal Bank lender of last resort support is available.

(b) Finance House Market

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[3] Paras 2.10-13.
[4] Paras 2.14-17.
[5] Bank of England, Sterling Money Market Operations Discount Window Facility http://www.bankofengland.co.uk/markets/money/discount/
[6] International Capital Markets Association (ISMA) http://www.icmagroup.org/about1/international1/european.aspx.

2.15 UK finance houses emerged during the late 1960s and early 1970s and began to raise funds through the issuance of commercial bills or other money market instruments. Many finance houses subsequently became banks although the market remains important in the UK as a specialist source of credit.

(e) Sterling Inter-Bank Market

2.16 The largest secondary market is the sterling inter-bank market. This involves the lending and borrowing of wholesale funds on a short term basis between commercial banks. Transactions may either be entered into directly or through a broker. Amounts vary between £500,000 and £5 million to £20 million with durations being from overnight or less than three months and for up to five years.

2.17 The inter-bank market is used by banks to adjust liquidity on a daily basis. Funds may be borrowed to cover shortages and excess funds placed to earn an interest return. The rate at which banks deal on the inter-bank market is referred to as the London Inter-Bank Offered Rate (LIBOR). This will, in turn, be determined having regard to the cost of funds on the primary (discount) money market as set by the Bank of England.[7] LIBOR is then used as one of the principal measures against which other domestic and international intest payments are calculated.

2.18 The sterling inter-bank money market is distinct from the inter-bank market that supports the Eurodollar market. This is the wholesale money market through which banks participating in either the international syndicated loan or Eurobond market obtain or place funds.[8]

(c) Inter-Company Market

2.19 The Inter-Company Market began in 1969 to allow corporate entities with surplus funds to lend to other companies through a broker. This was initially necessary due to bank lending restrictions at that time. The market remains small due to the availability of alternative sources of corporate finance.

(d) Sterling Certificate of Deposit Market

2.10 Certificates of deposit (CDs) are negotiable bearer securities evidencing an underlying deposit.[9] CDs may be issued in bearer or registered form, in amounts of between £50,000 and £1 million and for durations up to 90 days or up to five years. CDs bear interest and are negotiable. Capital gains may also be generated while tax is not withheld on transfer or maturity.

2.11 The Bank of England issued revised guidance on sterling CDs in November 1996 which replaced two earlier notices in March 1989 and November 1986. The 1996 Notice was to be read with the British Bankers' Association's (BBA) Lending Market Guidelines for Certificates of Deposit[10] and the London Code of Conduct issued by the Capital and Wholesale Markets Division of the Bank which contained accepted best practice for secondary trading in the wholesale markets. The Sterling Money Markets Liaison Group (MMLG) subsequently issued a notice on CDs in August 2003.[11] The MMLG is a market group of bankers and other practitioners including representatives from the FSA and CRESTCo chaired by the Bank of England.[12] The Notice applies to CDs issued by authorised institutions in the UK. This includes electronic CREST eligible debt securities (EDSs) or other paper CDs issued in the UK but held outside CREST. The 2003 Notice is to be read with the proforma terms of issuance for CDs and associated Explanatory Notes published by the Bank of England on 10 June 2003[13] and the BBA's August 2003 interim guidelines.

2.12 Eligible debt securities (EDSs) were created under the Uncertificated Securities Amendment Regulations 2003[14] which extended the earlier 2001 Uncertificated Securities Regulations.[15] The 2003 Regulations allowed for the evidencing and transfer of title to dematerialised equivalents of money market instruments (MMIs). MMIs could then be settled within an electronic settlement system and evidenced and transferred electronically. MMIs include CDs, Treasury bills, bills of exchange and commercial paper.[16]

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[7] Paras 2.10-12.

[8] G A Walker, *International Banking Regulation-Law, Policy and Practice* (Kluwer, 2001), Chapter 1.

[9] G A Walker, 'Certificates of Deposit' in Creswell, Blair et al, *Encyclopaedia of Banking Law* (Butterworths, 5 volumes loose leaf). Division.

[10] The BBA Guidelines were issued in November 1996 replacing earlier March 1984 guidelines. A new interim guide and compendium of documents was issued in August 2003 following the dematerialisation of money market instruments. G A Walker, 'Certificates of Deposit' in *Encyclopaedia of Banking Law* (Butterworth, five volumes loose leaf), Division .

[11] MMLG, "Issues of Certificates of Deposit in London" Market Notice (29 August 2003).

[12] CRESTCo is the Central Securities Depository for the UK market and Irish equities which merged with Euroclear Bank in September 2002. https://www.euroclear.com and http://www.bankofengland.co.uk/.

[13] http://www.bankofengland.co.uk/markets/money/mmfuture/htm

[14] Uncertificated Securities (Amendment) (Eligible Debt Securities) Regulations 2003 (SI 2003/1633).

[15] SI 2001/3755 which replaced the earlier 1995 Uncertificated Securities Regulations.

[16] An eligible debt security means a security: (a) which is constituted by an order, promise, engagement or acknowledgement to

2.13 These changes followed the Bank of England's consultation on the future development of money market instruments within the UK.[17] The Bank had earlier examined the future development of securities settlement infrastructure in the medium to long term under its Securities Settlement Priorities Review (SSPR).[18] The SSPR had recommended that the Central Gilts Office (CGO)[19] be merged with CREST and with CREST Co assuming responsibility for the operation of the CGO and the Central Moneymarkets Office (CMO).[20] Delivery versus payment (DvP) was to be introduced with payment being effected in real time central bank (Bank of England) money and money market settlement arrangements developed and, insofar as possible, integrated with gilt and equity settlement arrangements. Responsibility for the CGO was subsequently transferred from the Bank of England to CREST on 24 May 1999 and CMO on 20 September 1999. The CGO was integrated within CREST on 3 July 2000 with electronic title transfer (ETT) and DvP Central Bank money being introduced on 26 November 2001.[21]

(e) Sterling Commercial Paper Market

2.14 The Sterling Commercial Paper Market consists of the issuance and dealing in short term marketable unsecured promissory notes.[22] These have a fixed maturity of between seven days and three months or possibly between one to five years. They are generally issued in bearer form and at discount. Money market instruments are often issued at below the face or par value calculated having regard to the value of the interest that would otherwise have been paid until redemption.

2.15 As promissory notes, commercial paper is a negotiable instrument for the purposes of the Bills of Exchange Act 1882. A note legally constitutes a promise to pay rather than a direction or order to pay as under a bill of exchange or a cheque. Notes may refer to any fixed or floating rate negotiable debt instrument (other than a floating rate certificate of deposit). Notes were formerly used to refer to shorter term instruments and with a floating rather than fixed interest rate although the term may now be used to include instruments of any duration and interest service charge. A bill of exchange is a direction by one person (the drawer) to another (the drawee) to pay a certain sum of money to another person (the beneficiary) either on demand or at a fixed or determinable future time.[23] A cheque is a bill of exchange drawn on a bank.[24] The three principal types of negotiable instrument are bills of exchange, cheques and promissory notes.

2.16 The sterling commercial paper market began in May 1986. Instruments may be issued by companies or financial institutions with a net asset value of £25 million or more (or have listed guarantors on the London Stock Exchange) and be in minimum denominations of £100,000.

2.17 As financial instruments, commercial paper is transferable and negotiable (with the transfer of perfect title). Its tradability allows issuers to obtain funding at lower cost. Disintermediation with the removal of a lending institution on each issue also reduces transaction costs. Commercial paper issues are commonly used on the Eurodollar markets as an alternative to shorter form bonds or notes.[25]

(3) Gilt Markets

2.18 Gilt-edged securities are UK Government bonds. They generally include short gilts of between five years or less and other medium and long gilts. The gilt market dates from the establishment of the Bank of England in 1694 with bonds being used as the primary means for the Government to fund activities including major wars and then the major reconstruction and development required after World War II. Early gilts included *Consols* that were initially issued in 1752. The Treasury has also

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pay on demand or at a fixed or determinable future time, a sum in money to, or to the order of, a person who holds one or more units of the security irrespective of whether before the obligation to pay the sum becomes due the identity of that person is known to, or can be established by, the person who will or may be obliged to pay the sum; (b) which is, or is capable of being, traded in a market for securities of the same or like type; and (c) whose current terms of issue provide the units of the security may only be held in uncertificated form and are to be transferable in no other manner than by means of a relevant system in accordance with the 2001 Regulations (Regulation 3(e) of the 2003 Regulations). The 2001 Regulations were also amended to include definitions of 'dematerialised Treasury bills' and 'eligible dematerialised loan instruments.'

17 Bank of England, *The Future of Money Market Instruments* (November 1999, March 2000 and January 2001). See also CREST Co, *Money Market Instruments in CREST* (January 2001); HM Treasury, *Modernising the Settlement of Money Market Instruments* (September 2002); and BBA, *Preparing for the dematerialisation of Money Market Instruments* (August 2003).

18 Bank of England, *Securities Settlement Priorities Review* (18 September 1998).

19 The CGO was set up in 1986 by the Bank of England and the London Stock Exchange (LSE) to settle gilts and certain other non-British government debt instruments. This was formerly managed as a separate division within the Bank. On the DMO (n 2).

20 The CMO was set up within the Bank of England in October 1990 to provide for the computerised settlement of money market transactions rather than through physical delivery as previously. £292m in Treasury Bills and CDs had previously been stolen from a City messenger in King William Street in July 1990. John Stuart Gladstone Wilson, *Money Markets – the International Perspective* (Taylor & Francis 1993) 35.

21 Para 2.20.

22 G A Walker, 'Commercial Paper' in Creswell, Blair et al, *Encyclopaedia of Banking Law* (Butterworths, 5 volumes loose leaf). Division.

23 Bills of Exchange Act 1882.

24 Bills of Exchange Act 1882.

25 Paras 2.51-63.

issued *War Loans* from 1914 and sometimes 'double-dated' stocks which can be redeemed between two specified dates. 'Convertible stock' can also be issued that allows for the extension of the maturity of the gilts purchased.

2.19 Gilts have represented up to 65% of average turnover on the LSE. Brokers had earned earlier non-negotiable fixed commissions pre-Big Bang that resulted in massive profits with the increase in turnover during the 1970s and early 1980s. It was partly for this reason that the Government decided to refer the Exchange to the OFT. The replacement of the earlier single capacity with dual capacity broker dealers or market makers was modelled on the US bond market. Gilt-edged Market Makers are referred to as GEMMs with inter-dealer brokers (IDBs) operating between them. After the UK Big Bang, the initial 29 GEMMs including two Japanese GEMMs declined to 20. There are approximately still 15 GEMMs in operation with five IBBs[26] and separate Stock Exchange money brokers (SEMBs) also providing stock lending and financing services for GEMMs.

2.20 The Central Gilts Office (CGO) provided an initial computerised book-entry settlement system following Big Bang. Gilts have now been fully dematerialised with trading and settlement being conducted through CREST.[27] SEMBs provide liquidity by allowing the GEMMs to borrow using gilts as collateral or as intermediaries in lending stock held by other institutional investors.

2.21 Gilts were issued by the Bank of England on either a tender or option basis. With a tender, the issue is announced with its minimum price and bids invited. Allotments were made to tenderers at or above the price set by the Treasury. Any unsold stock was purchased by the Issue Department within the Bank and distributed subsequently as 'tap stock.' Agency brokers also act as intermediaries between investors and GEMMs. Options were introduced in 1987.

2.22 Gilts are distinct from Treasury bills that are used by the Bank of England to support its money market operations rather than raise Treasury funds directly. Bills date from 1877 and were used for financing purposes during World War I although these are now of much less importance than the gilts issued for finance purposes. Bills are issued weekly by tender on Fridays. The amount and maturity of the bills are announced by the Bank the week before and tenders invited. The bills are generally issued for either 91 or 182 days. The issue is underwritten by the discount houses.

2. CAPITAL MARKETS

2.23 The capital markets consist of the markets and exchanges through which government and corporate borrowers obtain short, medium or longer term funding or capital for business purposes. Capital can be understood to refer to the funding or investment obtained either through the issuance of debt instruments (by government entities) or shares or debentures (by corporate bodies). The term can also either be understood to refer to the liabilities of an entity or its net worth or equity (assets less liabilities) or to include a more narrowly defined range of assets for regulatory purposes principally including paid-up share capital, retained earnings, asset and other revaluation reserves, subordinated debt and certain other permitted hybrid instruments. Capital can also be understood more generally to comprise the net worth of a company that equates with its total assets less liabilities.

2.24 Funding is principally made available through government or international financial institutions, specialised development or investment banks or corporations, national financial institutions including insurance companies and pension funds, treasury departments of companies, investment trusts or unit trusts, and other individual or private investors. International financial institutions such as the World Bank or the European Bank for Reconstruction and Development (EBRD), may issue their own bonds to obtain funding for investment purposes or produce instruments issued by other institutions for funding purposes. Development banks and corporations will invest to support specific projects and activities. Insurance companies and pension funds invest to build up a capital base to support their life and non-life (contingent) liabilities. Investment can be partly used for growth and partly for revenue purposes to produce an income string to cover continuing commitments. These are often the largest single group of investors in any economy.

2.25 Investment trusts and unit trusts provide for the collected investment of funds in a portfolio of debt or equity instruments. This allows investors to receive a regular return as well as benefit from risk diversification and professional management. Investment trusts are effectively closed with fixed capital holdings, although their shares may be bought and sold. Unit trusts are open-ended in that the shares may either be bought or sold as the fund expands or contracts. Unit trusts can either be authorised (regulated) or unregulated. Open-ended investment companies (OEICs) are a more recent form of mutual funding issued under the European Undertakings for Collective Investment in Transferable securities (UCITS) directives.[28]

2.26 The treasury departments of large companies will also often wish to invest excess funds on either a short or medium to longer term basis. The treasury departments of some of the largest international companies have become substantial debt and shareholders. A number of American companies were, for example, instrumental in the development of earlier derivatives

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26 http://www.dmo.gov.uk/index.aspx?page=Gilts/Gemms_idb.
27 Paras 2.11-13.
28 G A Walker, 'Unit Trusts' in M Blair and Walker, *Financial Services and Markets Act* (Blackstones, Oxford, 2000), Ch.

markets. Investors may either purchase bonds or shares directly or invest through mutual funds with the benefit of their investment risk being spread and professional investment management.

(1) Debt

2.27 Governments principally borrow through the issuance of debt or bond instruments. In the UK these are referred to as 'gilts' due to the gilt-edged paper they were historically issued on or Treasury bills in the US.[29] Corporate entities may either raise funding through the issuance of bonds (generally referred to as debentures) or equity instruments (shares). Early forms of tradable debt instruments were government or local authority based[30] while the debt section of any modern market or exchange remains a significant, if not the principal, part of its business.

2.28 Bonds are essentially debt instruments issued for a defined period of years. ('Longs' generally refer to over 15 year term, 'mediums' 5-15 years and 'shorts' less than 5 years.) Some bonds may also be 'undated' or 'perpetual.' Bonds are generally issued at par value, which is their redemption price on maturity. ('Zero coupon', 'discount' or 'deep discount' bonds can be used which are issued at a substantially reduced price to their par value which effectively rolls in an equivalent interest amount.) The coupon refers to the interest payable, with the 'coupon rate' being the equivalent interest amount expressed in percentage terms[31].

2.29 More traditional bonds are referred to as 'straights' or 'plain vanillas' (or possibly 'bullet bonds' with a single repayment). While bonds were historically issued at fixed interest rates, it is more common to use a floating rate. This can be calculated with regard to a common measure such as the London Inter-Bank Offered Rate (LIBOR) or its New York, Tokyo or Frankfurt equivalent. A note generally refers to an interest issued at a floating rate, although the term is now more commonly used with regard to shorter instruments of less than five years.[32]

2.30 Debt instruments can also be 'dis-intermediated' and issued in a programme form. This is generally referred to as commercial paper. An investment bank assists in drafting documentation which allows the company to issue shorter paper (of between possibly 5-30 days or up to 12 months) on a continuous or rolling basis. This allows more accurate funding and liability management. Bonds may also be issued in 'strips' with the coupon and principal repayment being severed and traded separately. The strips are usually issued in a 'zero coupon' discounted form. Bonds may also be issued in a 'convertible' form (with the right to convert the bond into shares or other hybrid instrument) and will generally be unsecured.

2.31 Domestic bonds are usually registered with transfer being recorded in the register maintained by the issuer. International bonds are usually issued in a bearer form that allows transferability by deliver. Bearer instruments are also usually negotiable, which means that the purchaser will acquire perfect title, provided only that they have no knowledge of any prior defect in title. This can produce anonymity and was a factor in the development of the Eurobond markets during the post-War period. Bonds are now increasingly issued in a dematerialised form that requires entry in the electronic registers held by the exchange system involved.[33]

2.32 'Convertibles' can be exchanged into another type of bond or equity. 'Callable' bonds allow for the redemption date to be determined at a later time possibly as the discretion of the of the issuer. 'Puttable' bonds are redeemable at the discretion of the holder. 'Double-dated' bonds allow for redemption between two dates at issuer discretion.[34]

2.33 Bonds can also be indexed-linked such as to LIBOR. Non-fixed rate instruments issued by public sector bodies are generally referred to as 'variable rate' bonds. Corporate instruments are referred to as floating rate notes (or FRNs).

2.34 Eurobonds are distinct from 'foreign bonds' which are denominated in the currency of the country of issuance. Eurobonds refer to instruments issued in any other currency other than the country of issuance.[35] Foreign issues in London in sterling are referred to as 'Bulldog bonds' and foreign issues in US dollars in the US are referred to as 'Yankee bonds'. Any other issues in a currency other than the country of issuance would be referred to as a Eurobond.[36]

(2) Equity

2.35 The equity markets refer to the markets for the initial issuance and subsequence purchase and sale of shares in corporate bodies. Equity refers to the equity or share capital of a firm that corresponds with the total amount subscribed by

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[29] Para 2.6-7 and 2.18-22.
[30] Para 2.14.
[31] Peter Howells and Keith Bain, *The Economics of Money, Banking and Finance* (Pearson Education Ltd, Edinburgh, 2002). Ch. 16
[32] Para 2.15.
[33] Joanna Benjamin, *Interests in Securities* (OUP Oxford 2001).
[34] Para 2.19.
[35] Paras 2.64-76.
[36] Peter Howells and Keith Bain, *The Economics of Money, Banking and Finance* (Pearson Education Ltd, Edinburgh, 2002). Ch. 16.

members.[37] This is distinct from loan capital made up of debt instruments issued by the company (debentures). The real capital of a company represents its total net assets or worth.[38] This, in turn, is made up of fixed and circulating capital.[39]

2.36 The use of shares dates from the development of joint stock companies in the early 1600s. The first company to have issued shares is considered to have been the Dutch East India Company in 1602. This combined incorporation with overseas trade and joint stock raised from the general public.[40] The statutory right to incorporation was introduced under the first Companies Act in 1844.[41] This allowed for the incorporation of Deed of Settlement companies that had been used since the collapse of the South Sea Company and other joint stock companies around 1720 and the prohibition of raising funds through transferable stocks and shares under the Bubble Act.[42] Incorporation was previously only possible through Royal Charter that extended the earlier forms of business organisation of *Commenda* or *Societas.*[43] Limited liability would later be created under the Limited Liability Act 1855.

2.37 While early companies only tended to issue a limited number of shares of one class of high value, the issuance of a larger number of smaller nominal value shares became common from the 1880s onwards. The issuance of separate preference shares also became increasingly common. Preference shareholders rank ahead of ordinary shares in respect of dividends and the distribution of assets on a liquidation although they generally have restricted voting rights and are subordinated to debenture instruments.

2.38 Preference shares are more commonly now used with public company rather than private company. A number of different types of preferred shares may also be used. These include 'participating' or 'non-participating' (dividend and profit share or dividend only), 'fixed dividend' or 'variable' (fixed or calculated with regard to a separate index of reference rate) and 'cumulative' or 'non-cumulative' (with dividend payments have to be made before ordinary share payments or dividend rights lost). They may also be 'exchangeable' or 'convertible' which allows them to be converted into shares or debt. They may be 'redeemable' with a right to redeem through a call provision. Redemption may also be effected under a 'sinking fund' schedule. They may also either have a fixed maturity with a defined term or be perpetual (subject to a right of redemption on call).[44] Securities can also be traded in pairs. These are referred to as 'stapled securities' (or 'Siamese' securities or 'paired shares'). This involves the issuance of two sets of securities by different issuers that are then traded together.

2.39 The nominal share value of a company will be set out in its Memorandum of Association. UK private companies are not subject to any minimum although this is common in other countries. Public companies are generally required to have a minimum capital of, at least, £50,000.[45] Higher minimum amounts are imposed on particular types of financial institutions such as banks, which must have a minimum own funds or capital of €50m.[46] Companies are generally required to maintain their capital under most laws.[47] Companies must receive proper consideration on share allotment and cannot produce or redeem their own shares subject to the statutory procedures provided for.[48] Companies are also prohibited from assisting in the acquisition of their own shares.[49] Share capital may only be altered in accordance with the statutory procedures provided for.[50]

2.40 Shareholders generally receive a dividend payment (rather than an interest payment for bond holders). Distributions are generally only be made out of profits available for that purpose.[51] Public companies must also have net assets not less than the aggregate value of the called up share capital and undistributable reserves.[52] Shareholders will also have all of the additional rights of oversight and accountability against the management of the company, including to attend, vote and, if necessary, call general meetings, pass resolutions, take action against directors acting in breach of their powers or fraudulently,

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37 John H Farrar and Brenda Hannigan, *Farrar's Company Law* (Butterworths Lonn, 3rd Ed. 1991) Ch. 14 and 156.

38 Para 2.23. See also L E Bell JA in *St Michael Uranium Mines Ltd v Rayrock Mines Ltd* (1958) 15 DLR (2D) 609, Ontca following *Re Ontario Express and Transportation Co* (1894) 21 OAR 646 CA, cited in Farrar (N) 156 and N7.

39 *Lee v Neuchatel Asphalte Co* (1889) 41 CHD 1, CA. See D Ricardo, *The Principles of Political Economy and Taxation* (Everyman Ed. 1926) 19; and Hayek, *The Pure Theory of Capital* (1941) 323. For further discussion, Farrar (n 37) 158.

40 Farrar (n) 17. See also R R Formoy, The Historical Foundations of Modern Company Law (1923); C A Cooke, Corporation Trust and Company (1950); W R Scott, Joint Stock Companies to 1720 (1912); and L C B Gower, Principles of Modern Company Law (6 Ed. 1997), Chs. 2 and 3.

41 7 & 8 Vict, C110.

42 6 Geo 1, C18

43 William Holdsworth, *A History of English Law* (1932). Vol. VIII, Ch.4.

44 Farrar (n 37) Ch. 18; Gower (n 40).

45 s 3 Companies Act 1985.

46 Art. Banking Consolidation Directive 2000/12/EC; and Financial Services and Markets Act 2000.

47 Jessel MR in *Re Exchange Banking Co, Flitroft's Case* (1882) 21 CHD 519 and 533.

48 Lord MacNaughten in *Trevor v Whitworth* (1887) 12 APP CAS 409. Statutory redemption is now provided for under Ss Companies Act 1985.

49 ss 151-158 Companies Act 1985.

50 ss 121-135 Companies Act 1985.

51 s 263(1) and Part VIII of the Companies Act 1985, which replaced the earlier simple common law prohibition on the payment of a dividend out of capital. *Re Exchange Banking Co, Flitroft's Case* (1882) 21 CHD 519.

52 s 264(1) Companies Act 1985 following Art.15 of the Second Company Law Directive of 13 December 1976 (77/91/EEC) OJ C 31.1.1977.

apply to the Court where the affairs of the company are being conducted in an unfairly prejudicial manner[53] or petition for the winding-up of the company on the just and equitable grounds.[54] Similar remedies are available in other countries.[55]

(3) Warrants and Hybrids

2.41 Warrants are transferable certificates that allow the holder to acquire a specified number of shares or (fixed or floating rate) bonds. The right is to be exercised before a specified expiration date and at an exercise price. Warrants may commonly be issued with bonds or other debt instruments but can then be traded separately. The value (intrinsic value) of the warrant is the difference between the cost of exercising the right (the exercise price) less the underlying market value of the asset. The difference between the market value of the warrant and its intrinsic value is referred to as the premium.[56]

2.42 Separating the warrant from the underlying share can be referred to as 'unbundling'. This also applies to 'splits' where shares and their interest payments (coupons) are traded separately. This is distinct from a 'stock split' where the number of shares issued can be increased by dividing the individual shares proportionately. Shares can collectively be referred to as 'scrip'.

2.43 Other types of hybrid instruments can also be issued and traded. This will include any type of security or instrument that combines the characteristics of debt or equity. For example, this may include preference shares or convertible bonds. Securities may also be sold with attached derivatives (including forwards, futures, options or swaps). These may also be referred to as 'structureds' or 'synthetics' where a cash instrument (such as a share or bond) is combined with a derivative product.

(4) Depositary Receipts

2.44 A depository receipt is a certificate evidencing ownership of an underlying asset such as a share. The assets are held by a custodian that issues the receipt in a transferable form. The receipt then becomes an independent security that can be traded in its own right. This corresponds with the certificate of deposit which evidences an underlying cash deposit rather than a share deposit.

2.45 American depository receipts (ADRs) were first used by J P Morgan in the US in 1927. The purpose was to allow American investors to hold shares in foreign companies without the additional difficulties that arise in obtaining a US listing. This also simplifies dividend payments, with payment being possible in US dollars rather than foreign currency. The use of ADRs allows certain classes of investors to hold interests in overseas securities that would otherwise be prohibited. A local custodian may be used to hold the depositories interest in the foreign jurisdiction.

2.46 Markets also exist for trading in global depository receipts (GDRs) and some European depository receipts (EDRs). GDRs and EDRs can be sold to US qualified institutional buyers (QIBs) under Rule 144A of the General Rules and Regulations issued under the Securities Act 1933. Regulation S allows the sale of prescribed securities outside the US with a formal registration. GDRs and EDRs can avoid US registration and financial reporting compliance. London rules were also amended in 1994 to facilitate the use of GDRs.[57] DRs are also excluded from the definition of a collective investment scheme under FSMA. See also s 75(6)(h) of the Financial Services Act 1986.

2.47 ADRs are cleared through the US Depository Trust and Clearing Corporation (TDCC). The Depository Trust Company (TDC) had been set up in 1973 to centralise the clearing and settlement of paper certificate transfers. Stock certificates are held with the TDC and settlement is effected electronically. The New York Stock Exchange had set up a central certificate service (CSS) in 1968 to oversee the holding of shares by exchange members. A Banking and Securities Industry Committee was then established which was converted into the TDC in 1973. GDRs and EDRs are generally listed in London or Luxembourg and settled through Euroclear, Clearstream or the TDC. Depository receipts can also be CREST registered and traded and settled electronically.[58] Multilateral netting is also available in the US under the National Securities Clearing Corporation (NSCC) that was set up in 1975.

2.48 Under a depository receipt arrangement, the underlying securities will be held by the depository receipt issuer (the depository) or by a local custodian in the foreign country. The interest of the certificate holder is indirect and beneficial rather than legal.[59] Holdings are also unallocated and intangible.[60] Particular problems can arise in practice where shortfalls arise in

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53 s 459 Companies Act 1985.
54 s 122(1)(j) Insolvency Act 1986.
55 For comment, Farrar (n) Ch.42 and 748-750.
56 Thomas H McInish, *Capital Markets – A Global Perspective* (Blackwell Publishing, Malden, MA, USA and Oxford, 2000) 167-169.
57 UK Listing Rules, s [23.45].
58 Paras 2.11-2.13.
59 Benjamin (n 33) paras. 11.17-11.19.

the number of underlying shares held by the depository (or custodian). This may occur as a result of administrative error or bad deliveries (where an initial transfer or account credit has been subsequently reversed). Particular difficulties may arise where the depository has 'pre-released' new receipts before the purchase of the corresponding underlying shares have been settled. In the event of the depositories insolvency, courts will have to determine how to deal with shortfalls and 'bad PRs.'[61]

2.49 Similar legal issues arise with regard to mutual or managed funds. These include investment and unit trust. These constitute collective investment schemes under the UK FSMA.[62] CIS include authorised unit trust schemes, unregulated schemes, open-ended investment companies[63] (OEICs) and foreign funds. A number of different legal structures may be used, including trusts, limited partnership or open-ended investment companies.[64] Investors in such funds will again hold indirect equitable interests.[65]

(5) Hedge Funds

2.50 One of the most exciting new types of investment vehicle to have attracted particular regulatory attention in recent years has been the hedge fund.[66] Hedge funds are a particular type of unregulated investment fund. These were originally set up by Alfred Winslow Jones in the US in 1949. Hedge funds are set up as limited partnerships or mutual funds, with the number of beneficial owners being restricted to no more than 100 to avoid registration under the 1940 Investment Company Act. Public solicitation is not permitted, with funds being obtained from accredited investors (established financial institutions) or up to 35 non-accredited investors. Funds are raised through private placement. Hedge funds typically pursue aggressive investment strategies to increase income. This will generally involve a significant leverage and with investment strategies included equities, bonds, currency, derivatives and commodity forwards or other financial instruments.

3. EURODOLLAR MARKETS

2.51 Eurobonds are a particular type of transferable debt instrument used in international finance. The euro-dollar markets began in the late 1950s following the restoration of currency convertibility after World War Two. The term 'Euro-dollar' was originally used to refer to the lending of US dollars out of London by internationally active banks including American institutions that had branches in the UK. The debt would accordingly be denominated in dollars but issued out of London. The term is now more generally used to refer to any debt issuance in a particular financial centre in a currency from another country (such as euro-yen, euro-HK dollar or euro-euro).[67] While international bonds were used during the 19th century, such as in London, Paris and Berlin, these would be issued in the local currency. There was some euro-market activity during the 1920s and 1930s although the substantial expansion of the market did not occur until the late 1950s and 1960s. London became the natural centre for the market due to the liberal and open approach to market practice and regulation adopted, in particular, by the Bank of England.[68]

2.52 Expansion of the market was initially facilitated by the large volume of US dollars in circulation in Europe as part of the reconstruction effort. This would be later stimulated again with the massive increase in the volume of petrol-dollars following the oil price increases during 1973 and 1979. The development of US dollar lending in London rather than New York was principally driven by the regulatory restrictions imposed in the US especially under Regulation Q and Regulation D. Regulation Q imposed a ceiling was imposed on the amount of interest payable on dollar deposits by banks in the US. Under Regulation D, a 3% reserve was imposed on transaction accounts up to US$40.5m and 12% on accounts over that. An attempt was made later by the Federal Reserve to attract some of this business back to the US through the use of international banking transactions although this was largely unsuccessful.

2.53 The euro-dollar markets essentially consist of a separate bond (debt) and a syndicated loan (bank) market as well as an underlying inter-bank market. The bond market is based on transferable debt instruments issued in the form of a single certificate of security. Loan commitments are generally only entered into by banks on a group or syndicate basis due to the size of the indebtedness involved and need to spread risk for management and capital purposes. The main bond and loan markets are supported by an extended inter-bank market that operates on a telephone or over-the-counter (OTC) basis.

2.54 The principal terms and conditions of the bonds were principally listed on the back (in fine print) with transferable coupons attached representing half-yearly interest payments. These would include similar clauses to those contained in a term

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60 Benjamin (n 33) paras. 11.20-11.30.

61 For discussion, Benjamin (n 33) paras. 11.31-11.39.

62 s394 FSMA. This replaces the earlier definition set out in s 75 FSA 1986. See also European Council Directive on the Co-ordination of Loss, Regulations and Administrative Provisions relating to undertakings for collective investment in transferable securities (UCITS) 85/611/EEC as amended inter alia by Council Directive 88/220/EC.

63 Financial Services (Open-Ended Investment Companies) Regulations 1997.

64 Benjamin (n 33), paras. 11.40-11.93. See also McInish (n) 177-181.

65 Benjamin (n 33) para. 11.94.

66 On the regulation of hedge funds, G A Walker, 'Hedge Funds' (2008 unpublsihed). See also Walker 'Hedge Cutting,' *Financial Regulation International* (Financial Times).

67 G A Walker, *International Banking Regulation – Law, Policy and Practice* (Kluwer Law London 2001) Ch.1, Section 1 and N.3.

68 Walker (n), Footnote 12, referring to remarks by the then Governor Lord Cromer. 11 *BEQB* (1962) 265.

loan agreement (including financial terms including interest and redemption, payments, representations and warranties, covenants, events of default and remedies) although adjusted to reflect the transferable nature of the claim involved.[69]

2.55 Bonds have traditionally either been issued through private placements, preliminary prospectus offerings or impact day offerings. Preliminary offerings involve the use of 'red herring' or 'pathfinder' prospectuses, with managers contacting smaller groups of financial institutions to determine market appetite and price. Impact day offerings are announced through a public advertisement, with all of the principle terms fixed, with investors being invited to subscribe within a specified period. Most issues are now placed, with the managers purchasing the whole issue and selling this on to clients or dealers. Underwriting may be used in connection with larger offerings whereby the underwriters commit to purchase any proportion of the issue not taken up by investors. This is rarely used in Eurobond issues.

2.56 A prospectus or offering circular is necessary to provide information concerning the issuer and issue. This will be used by the managers to sell the issue to clients or pass this on to dealers. The issuers and managers will enter into the subscription agreement. This specifies the terms with which the mangers will either purchase the issue themselves or arrange for its sale and purchase. This may include the terms of any stabilisation under which the issue may be over or under allotted, to ensure an orderly and stable market. This requires a specific regulatory exemption and can only be carried out in accordance with a specific procedure.[70] If more than one manager is involved, a separate managers' agreement will be entered into appointing a lead manager and specifying their rights and obligations inter se. The managers will enter into a selling agreement with the selling group, if one is used, and an underwriting agreement where separate underwriters are involved.

2.57 Larger bond issues will often involve the appointment of a trustee under a trust deed. The purpose of the trustee is to represent the interests of bondholders collectively but also to assist management of the issue over time. Bondholders benefit from professional oversight and management, with a number of rights and functions being delegated to the trustee to exercise on behalf of the bondholder. This will include collecting and examining financial information and returns, and deal with other more minor administrative matters. The trustee can also be given power to consent to the waiver of a number of covenants and defaults. The issuer also benefits from single representation, professional contact, collective action (with many individual rights of redress being removed from bondholders) and possibly more flexibility in the event of more minor or even serious defaults, with the issuer being able to negotiate directly with the trustee on behalf of the bondholders. Use of a trustee in the US is dealt with by the Trust Indenture Act 1939. Provisions governing the use and functions of trustees in respect of listed companies are contained in the UK listing rolls.[71]

2.58 Eurobond issues are usually either immobilised or fully dematerialised. Under a more traditional issue, a single global note would be produced at the close that would represent the full amount subscribed. This would then be replaced by individual notes that would be produced subsequently. Individuals bonds or notes would be printed on security-protected paper to prevent forgery. Rather than by held by individual investors these would be deposited either with Euroclear in Brussels or Clearstream (formerly Cedel) in Luxembourg as custodians. The global note and subsequent individual bonds would then be immobilised with the custodian with individual bondholders' interests being represented by account entries held with the respective depository. This improves security and reduces transfer and transaction costs. Sale and purchase can simply be achieved through the provision of structures to each custodian with a 'bridge' operating between the two.

2.59 Many issues are now dematerialised rather than simply immobilised. This involves issuing the bonds themselves in an electronic form, with transfers then only being effected through the accounts systems maintained by the custodians. Dematerialisation is provided for in the UK under statutory instruments.[72] This is also provided for under the UCC and Electronic Signatures Act in the US. Bonds and shares can also be dematerialised in the UK under CREST with CREST Co Ltd being a recognised operator. Securities have to be eligible and admitted for trading by the operator, with users holding accounts to allow them to issue computer instructions for purchase and sale. CREST operates on a delivery-versus-payment basis, with title passing on completion of the electronic sale.

2.60 More traditional bonds have generally been issued for between 10-15 years. A number of variations can be used, including variables, convertibles, secured, asset-backed or warrant-linked. A number of shorter duration instruments may also be issued. Short form bonds of between 5 and 10 years are generally referred to as euro-notes (or possibly euro medium-term notes or euro-MTNs or EMTNs). Euro notes can also be issued under a facility that allows issuers to place a number of notes on the market (this may be referred to as a note issuance facility or multi-option financing facility or short-term note issuance facility).[73]

2.61 Even shorter instruments of less that one-year may also be issued. These are generally referred as commercial paper or euro commercial paper programmes (ECPs). These must not exceed 270 days under US laws, failing which they will require SEC registration. UK and German notes can be of any duration up to 365 days. The purpose of commercial paper is to allow companies to issue shorter, smaller denomination notes on a rolling basis to manage their cash flows more efficiently. A

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69 Philip R Wood, *International Loans, Bonds and Securities Regulation* (Sweet & Maxwell, London 1995). Ch. 8.
70 FSA,
71 Wood (n) Ch. 10.
72 Uncertificated Securities Regulations 2001 (SI 2001/3755).
73 Wood (n) Paras.9.31-36. See also Walker

programme or facility is set up with the assistance of a lead manager. This will include a dealer or programme agreement, an issuing and paying agency agreement, a deed of covenant, a deed of guarantee and an information memorandum. The issuance timetable, representation, warranties and indemnities are included in the dealer or programme agreement. This will include the terms of issue and any guarantee arrangement.

2.62 The issue mechanics are set out in the Issuing and Paying Agency Agreement. Pre-signed notes are usually delivered to the agent who completes and authenticates them for issue. A deed of covenant contains the issuer's commitment to pay any amounts due under the notes in the event that the global note is not replaced by definitive notes. The development of the euro bond, euro note and euro paper markets has then been one of issuing shorter duration paper under programme facilities rather than single impact or offering documentation. This increases issuer flexibility and allows for more efficient management of funding and liability commitments.

2.63 The total facility available may be equal to a more traditional bond although the issuer is under no obligation to take on the debt at any particular time unless required. The markets have also become characterised by the offering of increasingly complex products with various attachments to attract investor interest. This may include convertibles or equity-linked options, as well as separately tradable warrants and secured, asset-backed or guaranteed alternatives.

4. DERIVATIVES MARKETS

2.64 A derivative is a financial contract, the value of which depends upon a reference rate or underlying asset or index, including an interest rate, exchange rate or equity or commodity price.[74] The main purpose is to transfer the risks associated with fluctuations in interests rates, exchange rates or equity or commodity prices more efficiently.[75]

2.65 The most commonly used forms of financial derivatives include futures and forwards,[76] options,[77] swaps[78] and other similar or hybrid instruments. Derivatives are a sub-set of off-balance sheet contingencies and commitments, the main examples of which include credit substitutes such as acceptances, guarantees, letters of credit, forward asset purchases and general commitments to lend including standby facilities and credit lines.[79]

2.66 Forward and derivative contracts have been available since ancient times.[80] The substantial growth in the use of modern derivatives nevertheless only began in the early 1970s following the collapse of the Bretton Woods system of managed currency arrangements beginning August 1971. This, in particular, led to the introduction of floating currencies from 1973 with significant levels of currency and interest rate risk. A number of banks and traders incurred significant losses due to the failure to properly cover (hedge) their exposures. These included West Deutsche Landesbank and Bankhaus Herstatt. The closure of Herstatt in June 1974 almost led to the collapse of the international payment system. The response of the G10 governors was to issue a support communiqué to the markets and to establish the Basle Committee on Banking Supervision.[81]

2.67 The first contracts used were foreign exchange forwards. These were followed by exchange rate currency and interest rate futures, supported by central clearing systems on the new derivatives markets established especially in Chicago. Foreign exchange swaps were also introduced in the early 1970s to attempt to respond to the new levels of exchange rate risk in the euro currency market. The basic FOREX swap involved a simple exchange of payment obligations, although this was extended to include back-to-back or parallel loans and straight currency swaps by the 1980s.[82] Early dealers acted as brokers in finding counter parties with offsetting requirements, although they subsequently began to take active positions that would be hedged by entering into matching transactions or warehousing positions. Any uncovered positions would then be offset through the purchase of exchange-traded contracts.

2.68 Traded and OTC markets have expanded massively subsequently. The total market for all forms of financial derivatives in 1993 was in excess of US$11 trillion. This has since grown to over US$500 trillion. This includes [] of exchange-traded contracts and [] OTC. While exchange-traded transactions are dealt with in accordance with market rules and

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74 Basel Committee, *Prudential Supervision of Banks' Derivatives Activities* (December 1994) Para.7.

75 G A Walker, 'Financial Derivatives – Global Regulatory Developments' *JBL*. See also Lillian Chew, *Managing Derivative Risks – The Use and Abuse of* Leverage (Wiley, Chichester, 1996) and J Koziol, *Hedging – Principles, Practices and Strategies for the Financial Markets* (1990).

76 A future is an obligation to buy or sell an asset at a fixed quantity, price and time. This is distinct from a forwards contract due to its tradable character and exchange settlement. Walker (n 79) n.8. See also M Fitzgerald, *Financial Futures* (1983); IFR Publishing Ltd (Ed.) *Financial Futures and Options – Recent Developments* (1989); and P Weller (ed), *The Theory of Futures Markets* (1992).

77 An option is the right (but not obligation) to buy or sell a particular asset at a fixed quantity, price and time. Option contracts include Caps (with rate ceilings), floors (with rate minimum) and callers (with rate ceilings and floors).

78 A swap is an exchange of payment obligations or commitments. This may include currency, interest rate, commodity or equity obligations. The cash flows due are calculated for each settlement date by multiplying the quantity of the underlying asset (the notional principal) by a specified reference rate or price. The notional principal is only used to calculate the payment stream and never paid or exchanged, except under currency swaps. Interim payments will be netted with only outstanding balances being paid by one party to the other.

79 Walker (n 79).

80 The first recorded option contract appears in Book I of Aristotle's *Politics*. Or early history, E Swan (Ed) *the Development of the Law of Financial Services* (1993) cited in Walker (n 79) n 12.

81 Walker, *International Banking Regulation – Law, Policy and Practice* (n) Ch.1

82 P Goris, *The Legal Aspect of Swaps – An Analysis Based on Economic Substance* (1994) Ch. 2 cited in Walker (n) n 14.

covered by margin payments, significant difficulties arise with regard to the OTC market especially in terms of lack of transparency high levels of concentration and problems of contract finality. Concentration arises where large sections of the OTC market are dominated by a limited number of financial institutions.[83] By December 1994, 633 banks were active in the derivatives area, although six institutions were carrying out 83% of the business and 25 institutions 97%.[84]

2.69 Financial derivatives markets have also grown significantly since the early 1970s. Forwards contracts in most commodities have always been available and trading in forward contracts for futures began in the US in the 1850s. The Chicago Board of Trade (CBOT) was originally set up in 1848 and the Chicago Mercantile Exchange in 1898. The demand for financial rather than commodity futures and other derivative contracts nevertheless only became significant following the collapse of the managed currency arrangements under Bretton Woods between 1971 and 1973.[85] A number of new contracts were developed to attempt to provide cover against the higher levels of volatility and exposure created. These initially included currency and the interest rate futures and options, and then equity and commodity options. Basic foreign exchange swaps then developed into back-to-back or parallel loans and then straight currency swaps by the early 1980s. Foreign currency trading was introduced on the CME in 1972 through an affiliated international monetary market (IMM). The separate Chicago Board Options Exchange was set up in April 1973 and is now the largest options exchange in the world.

2.70 The first separate derivatives market set up in Europe was the European Options Exchange (EOE), which was established in Amsterdam in 1978 based on the CBOT. The London Traded Options Market (LTOM) was opened in 1978 by the LSE. The London International Financial Futures Exchange (LIFFE) began in 1982 and was subsequently merged with the LTOM in March 1992, to create the London International Financial Futures and Options Exchange. OM London was established in December 1989.

2.71 The *Marche a Tarme de Instrument Financiers* (MATIF) was opened in Paris in February 1986, with the *Marche des Options Negotiables de Paris* (MONEP) in December 1987. The Deutsche Terminborse (TDB) was established in January 1990. Other exchanges have been opened in other countries including Switzerland in 1988 (the Swiss Options and Financial Futures Exchange (SOFFEX)), Spain in 1989 (MOFEX and MEFF), Austria in 1991 (*Osterreichische Termin und Optionenborse* (OTOB)), Belgium in 1991 (the Belgian Futures and Options Exchange (BEFLOX)), with Danish Options and Futures Guarantee Fund (FUTOP), the Oslo Stock Exchange Options Market and the Finnish Options Market. LIFFE was subsequently acquired by Euronext.[86]

2.72 Derivatives are also traded on London through EDX London Ltd and London Securities and Derivatives Exchange (OMLX). Commodity derivatives are also dealt with through the International Petroleum Exchange (IPE), the London Metal Exchange (LME), the Baltic Exchange, the London Bullion Market and the London Platinum and Palladium Market. The total notional amount of derivatives contracts outstanding in the OTC markets is estimated to be over US$ 683.7 trillion up from $516 trillion at the end of June 2007 (with a net cost of replacement of $11 trillion).[87] Average daily exchange traded foreign exchange turnover had increased by 71% between 2004 and 2007 to $3.2 trillion. Substantial OTC markets have also developed most recently in credit derivatives (including principally totally returned swaps, credit default swaps and credit linked notes).

5. CURRENCY MARKETS

2.73 The Foreign Exchange or Currency (FOREX) market is the largest market in the world in terms of cash payment involved. Over US$1.9 trillion of currency transactions are carried out daily.[88] The market is screen-based and includes around 350 banks, although most transactions are carried on through about 50 banks[89] and between 10-12 brokers.

2.74 The main financial centres in which currencies are traded include London, New York and Tokyo, although over one-third of total business is conducted through London. Dealer banks continually provide bid (buy) and ask (sell) prices on minimum contract sizes of US$1m. Most transactions are inter-bank (53%) with a third (33%) involving a dealer and another financial institution, with only 14% between a dealer and a non-financial company.[90] Brokers act as intermediaries between

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[83] Walker (n 79) section III.

[84] Walker (n 79) n23

[85] G A Walker, *International Banking Regulation – Law, Policy and Practice* (Kluwer, London , 2001), Chapter 1

[86] http://www.euronext.com

[87] BIS, *Semiannual OTC Derivatives Statistics at end-March 2009*. http://www.bis.org/statistics/derstats.htm.

[88] This includes US$600bn spot and US$1,300bn derivatives (US$1,000bn FOREX swaps, US$200bn outright forwards and US$100bn options). BIS, *Triennial Central Bank Survey 2004* available http://www.bis.org/publ/rpfx05.htm. See also BIS, *Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity in 2007 – Final Results* (December 2007) available http://www.bis.org/press/p071219.htm.

[89] The largest dealers as of May 2005 were Deutsche Bank (17%), UBS (12½%), City Group (7.5%), HSBC (6.4%), Barclays (5.9%), Merrill Lynch (5.7%), J P Morgan Chase (5.3%), Goldman Sachs (4.4%), AB AMRO (4.2%) and Morgan Stanley (3.9%). The most commonly traded currencies were US dollars (89%), euro (37%), Japanese yen (20%), British pounds sterling (17%), Swiss franc and Australian dollar. See generally, William M Clarke, *How the City of London Works* (Sweet & Maxwell, London, 3 Ed. 1991), Ch.8.

[90] BIS, *Triennial Central Bank Survey 2004* (N). Short forms are used to describe standard exchange relationships such as "cable" (dollar/sterling), "swissy" (dollar/Swiss franc), "stocky" (dollar/Swedish kroner), "copey" (dollar/Danish kroner) and "bill and ben" (dollar/Japanese yen). A cross-rate is the

corporate or retail customers and the market. The brokers will offer a wider spread than on the market itself. Other participants in the markets include commercial companies, central banks and hedge funds. The ten most active traders carry on 73% of total trading.

2.75 Trading can also be conducted in exchange or forward contracts. The first foreign exchange futures contract was introduced by the Chicago Mercantile Exchange (CME) in 1972. A foreign exchange swap is a combined spot and forward transaction (which involves the immediate spot (cash) sale of one currency, as well as the forward sale of the purchase currency after a period such as three months). Forward contract is simply an agreement to buy or sell an asset at a pre-agreed future time. (A forward rate agreement (FRA) is an exchange of fixed for floating interest calculated with regard to an underlying reference rate, with only the net amount due being paid on the termination date.) Settlement is generally carried through the national payment systems of the currencies of the countries concerned.[91]

6. GOLD MARKET

2.76 The Gold Market is a specialist commodity rather than currency market. The London Gold Market was originally opened in 1919 but had to be closed between 1939 and 1954. This was used to sell most of the gold produced in South Africa, as well as Canada, Australia and the United States and the Soviet Union. Many central banks also conducted official gold dealings in London. The Market was subsequently closed again in March 1968 after the Gold Pool countries had attempted to control the price of gold by selling over US$3,000m worth of gold over a two-week period. Government intervention was eventually removed in 1971 after the US dollar closed the earlier 'gold window' that had allowed other countries to convert US dollars for gold at the official rate set under the Bretton Woods Agreement.[92]

2.77 The Gold Market has traditionally been based at Rothschild's in London. The main participants in the daily 'fixing' have included N M Rothschild (established in 1804), Mocatta & Goldsmid (1684), Sharps, Pixley (1750 and merged 1852) and Samuel Montagu (1853) with Mase Westpac replacing Johnson Matthey.[93] The five main members meet at 10.30am and 3pm to fix the daily price to cover outstanding purchase and sales orders.[94]

2.78 The market now includes 11 market-makers and approximately 50 ordinary members of the London Bullion Market Association (LBMA) that was set up in 1987. Members represent the major gold centres including Zurich, Frankfurt, Sydney, Tokyo and New York with the Bank of China as a member. Quality control is ensured through London Good Delivery Standards that include a list of melters and assayers. While the wholesale market is based in London, the largest spot market is in Zurich and the main derivatives (including gold futures, options and auctions on futures) are traded through COMEX in New York.

7. COMMODITY MARKETS

2.79 Other commodities can also be sold on an open outcry or auction basis through various exchanges, salerooms or auctions. This includes oil and metals, as well as consumables (such as sugar, cocoa, copper or coffee) and non-consumables (such as fibres and furs). Ships and shipping and airfreight and aircraft are also sold through shipping and carriage markets such as the Baltic Exchange in London.[95]

8. INSURANCE MARKETS

2.80 Insurance markets provide a range of additional risk management services. These principally either include life (pension) assurance or cover and non-life or other contingent liability cover (including property, business, fire, motor and personal injury insurance). Insurance intermediation allows for the receipt of an agreed return in the event of a contingent or unexpected event. The life or insurance companies receive a one-off or annual premium that is invested in the capital markets to produce an appropriate capital base and income stream from which payments can be made. This then allows governments, businesses and individuals to manage their commercial and personal relations more effectively.

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rate between two currencies directly not involved US dollars. Most FX transactions (80%) involve exchanging one currency for dollars and then dollars for the other currency.

[91] The first foreign exchange swap was between IBM and the World Bank in 1981. This involved an exchange of the principal and interest payments on a fixed rate loan in one currency for the corresponding payments of the equivalent loan in another currency. The market is now worth over US$1 trillion. Simple swaps are referred to as "plain vanillas". Variations include cross-currency and fixed-to-floating rate swaps or possibly include an option (a swaption). Michael Adler, "Foreign Exchange Swaps" in *The New Palgrave Dictionary of Money and Finance* (Palgrave, London, 1992) 164.

[92] Para 2.51.

[93] Clarke (n 93) 84.

[94] Dealers confirm their agreement by lowering the Union Jack flags on their desks. Clarke (n 93) 86.

[95] http://www.balticexchange.com.