

MIFID (THE MARKETS IN FINANCIAL INSTRUMENTS DIRECTIVE) AND TECHNOLOGY

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**MIFID (THE MARKETS IN FINANCIAL INSTRUMENTS DIRECTIVE)
AND TECHNOLOGY¹**

A. INTRODUCTION

1. **Liberalisation and technology: the motors of growth in global finance.** Writing in June 2007², the Financial Times' chief economics correspondent observed five trends in the global economy as it had developed from "mid-20th century managerial capitalism" towards "global financial capitalism":

- growth in financial assets³;
- growth in transactional finance⁴;
- the rise of derivatives⁵;
- the emergence of hedge funds⁶ and private equity funds; and
- globalisation itself⁷.

To the question "what explains the growth in financial intermediation and the activity of the financial sector?" he responded: "the answers are much the same as for the globalisation of economic activity: liberalisation and technological advance".

2. **The value chain for financial instruments and markets.** In order to understand the role of liberalisation and technology in the growth of the financial intermediation and activity it helps to understand the value chain for financial instruments. The UK equity markets provide a useful case study here. In the 2005 UK Competition Commission ('CC') inquiry into the prospective acquisitions of London Stock Exchange plc ('LSE') by Deutsche Börse AG and Euronext NV⁸, the CC identified⁹ five main elements in the value chain for equity securities¹⁰:

¹ Richard Kemp, Partner, Kemp Little LLP, London. This article is not legal advice or a substitute for it.

² 'The new capitalism: how unfettered finance is fast reshaping the global economy', Martin Wolf, Associate Editor and Chief Economic Correspondent, Financial Times, 18 June 2007. <http://www.ft.com/cms/s/2/518482b4-1dc5-11dc-89f7-000b5df10621.html>

³ Citing figures from the McKinsey Global Institute that the ratio of global financial assets to annual world output increased to 316:100 in 2005 from 109:100 in 1980.

⁴ Bank deposits were estimated to have fallen between 1980 and 2005 from 42% to 27% of all financial securities.

⁵ Citing figures from ISDA (the International Swaps and Derivatives Association) showing growth from \$3,450bn in 1990 to \$286,000bn in 2006.

⁶ Estimated to have grown from 610 in 1990 to 9,575 at the start of 2007.

⁷ International financial assets/liabilities owned/owed by residents of high-income countries grew from 100% of aggregate GDP in the mid-1980s to 330% in 2004.

⁸ See <http://www.competition-commission.org.uk/inquiries/ref2005/lse/index.htm>

⁹ See the CC's June 2005 'Working paper on exchanges and post trade services: an overview' (http://www.competition-commission.org.uk/inquiries/ref2005/lse/industry_background_paper.pdf)

- **the primary market:** where issuers' securities are admitted to market to raise capital;
 - **the secondary market:** where investment firms, as brokers (for their clients) and dealers (for themselves):
 - execute trades in those securities (**trade execution**); and
 - report the details of those trades to the market (**trade reporting**);
 - **market data services:** which provide connectivity to markets and pricing and other information about individual trades and the markets concerned;
 - **clearing:** the process where instructions for the transfer of securities traded and corresponding payments are transmitted, reconciled and matched or netted off, typically through a CCP (Central Counterparty) interposed between buyer and seller to remove risk and ensure anonymity; and
 - **settlement:** the process where the security is transferred and payment made.
3. **MiFID.** MiFID¹¹, due to be effective from 1 November 2007 across thirty European countries¹², and Regulation NMS¹³, its US cousin, are the latest generation of financial markets liberalisation rules. MiFID principally addresses secondary markets but indirectly impacts primary markets¹⁴, market data¹⁵, clearing and settlement¹⁶. It follows the classical EU law approach to services free movement of allowing EU-wide services provision on the

¹⁰ Although equities were the financial instruments under consideration by the CC in that case, the fundamentals of this value chain tend not to be dissimilar for other types of financial instruments.

¹¹ The Markets in Financial Instruments Directive 2004/39/EC of the European Parliament and of the Council of 21 April 2004 (OJ 2004 L1/45) http://eur-lex.europa.eu/LexUriServ/site/en/oj/2004/l_145/l_14520040430en00010044.pdf

¹² The twenty seven EU Member States together with the EEA countries Iceland, Liechtenstein and Norway.

¹³ Regulation NMS ('Reg NMS' - <http://www.sec.gov/rules/final/34-51808.pdf>) was adopted by the US Securities and Exchange Commission ('SEC') and implemented from June 2005 onwards. It sets out new rules to enhance the regulatory structure of US equity markets. Reg NMS is outside the scope of this article, but very briefly it has four key elements: (i) an **Order Protection Rule** requiring trading centres to enforce written policies and procedures to prevent the execution of trades at prices inferior to protected quotations (i.e. quotations that are immediately and automatically accessible) displayed elsewhere; (ii) an **Access Rule** requiring fair and non-discriminatory access to quotations and limits on access fees to harmonise quotation pricing across different trading centers, and requiring exchange and securities associations to prohibit the displaying of quotations that lock or cross automated quotations; (iii) a **Sub-Penny Rule** generally prohibiting market participants from displaying, etc quotations, etc in price increments of less than one penny (cent); and (iv) amendments to the SEC's **Market Data Rules** setting out the requirements for consolidating, distributing, and displaying market information.

¹⁴ Primary markets are generally outside the scope of MiFID, but see Articles 40, 41 and 42. In the UK, see the FSA's website on listing applications (<http://www.fsa.gov.uk/Pages/Doing/UKLA/listing/index.shtml>). At EU level, see Directive 2001/34/EU of 28 May 2001 on the admission of securities to official stock exchange listings and on information to be published on those securities (OJ 2001 L184/1 http://eur-lex.europa.eu/LexUriServ/site/en/oj/2001/l_184/l_18420010706en00010066.pdf).

¹⁵ Aside from pre- and post-trade and transaction reporting, MiFID itself does not regulate market data directly and this is left to market forces. See Section G below

¹⁶ MiFID does not directly regulate clearing and settlement services, apart from ensuring that the cross border transactions that it anticipates will be brought about are not stymied by restrictive clearing and settlement rules (MiFID, Recital 48 and Article 46).

basis of home country regulation whilst ensuring customer protection¹⁷. In the words of HM Treasury's Explanatory Memoranda to the UK legislation implementing MiFID¹⁸:

“MiFID does three main things. It:

- **establishes *organisational requirements and rules governing behaviour towards investors for firms ("investment firms") who wish to be authorised to undertake activities linked to the buying and selling of financial instruments such as shares, bonds and derivatives;***
- ***facilitates the carrying on of business by investment firms and stock and derivative exchanges and other organised financial markets across national borders in Europe;***
- ***sets a regulatory framework for stock and derivative exchanges and other markets where the organised trading of financial instruments takes place.*”¹⁹**

4. **Technology.** The advances in computing and communications that have contributed to the developments observed in the opening paragraph are a consequence of Moore's law, the empirical rule that computer power doubles every two years. In the last decade or so these advances have brought about the rise of electronic trading platforms around the world and the decline of traditional face to face or open outcry trading. Electronic trading has facilitated the development of complex financial instruments; the execution of complex transactions; greater speed - lower latency - in trade execution; virtually limitless trading capacity; greater transparency – the availability of more and better information about what is happening; cost reduction; greater ease of market access; and greater competition.

Increasing competitive pressures in turn fuel technology development and (in common with other industry sectors that technology transforms) a drive towards:

- **product innovation:** for example, the rise of derivatives since the mid-1980s;
- **standardisation:** where common standards (particularly those relating to APIs²⁰ and protocols²¹ for data and communications) speed up trading and data flows;
- **disintermediation:** as distribution channels shorten;
- **integration:** up and down the value chain and across related products and geographies;
- **globalization:** to achieve efficiencies, for example by using a single platform around the world for 24 x 7 trading; and

¹⁷ MiFID, Recital 2 provides that the legislation's high level objective is to provide “for the degree of harmonisation needed to offer investors a high level of protection and to allow investment firms to provide services throughout the Community, being a Single Market, on the basis of home country supervision”.

¹⁸ See for example paragraph 4.1 of HM Treasury Explanatory Memorandum to SIs 2006/3384, 3385 and 3386 and SIs 2007/124, 125 and 126 (see http://www.opsi.gov.uk/si/em2007/uksiem_20070126_en.pdf).

¹⁹ Emphasis added.

²⁰ An API (Application Programming Interface) enables a software developer working on one set of application programs to use the functions of another (which may be the computer operating system, intermediate ‘middleware’ software or another application) through that other's API without having directly to keep track of all of the latter's operations.

²¹ A protocol is a set of rules that that facilitates communication and transfer of data between two points and governs the language (syntax and semantics) and timing (synchronization) of communication and transfer.

- **consolidation:** to achieve efficiencies in scale, scope and global coverage.

Significant technology innovation is currently taking place which increasingly impacts the trading of financial instruments. These trends all take advantage of increasing speed in processing and communicating data, and each affects the others. They include:

- **algorithmic, automatic or ‘black box’ trading:** the increasing use of software algorithms²² in place of human intervention to determine the timing, pricing, quantity and placing of trading orders; and
- **direct trading:** direct access to exchanges, markets and real time data enabling traders’ systems to execute and confirm trading orders without intermediation; and
- **ever lower latency:** towards instantaneity in communications between the time when a trading order or other input is processed and the time of its corresponding output.

5. **The UK experience: anticipated impact of MiFID in the UK.** The twin forces of liberalisation and technology have also clearly delineated the development of financial markets in the UK over the last generation. In the UK equity market and from the start point of ‘Big Bang’²³ in 1986, progressive liberalisation and deregulation²⁴ and the quickening pace of technology change²⁵ have been central to the development of UK securities trading.

In effect, MiFID takes the regulatory environment as it already applies in London and extends it across the EU: many of the MiFID’s key provisions apply here already, including conduct of business (a comprehensive system of internal organisational requirements for investment firms, best execution and other operational requirements for clients), system architecture openness, competition in trade execution and transparency in pre-trade information and post-

²² An algorithm is a set of defined pre-determined instructions to achieve a desired end result.

²³ ‘Big Bang’ took place on 27 October 1986. It consisted of six steps centred on the London Stock Exchange (‘LSE’) to deregulate the UK equity market: (i) the removal of the bar on external ownership of (and so investment into) LSE member firms by third parties; (ii) the introduction of ‘dual capacity’ enabling all member firms to act both as brokers (agents) and dealers (jobbers or principals); (iii) the introduction of price competition through the abolition of minimum commission scales; (iv) the replacement of face to face trading on the market floor by remote trading via computer and telephone; (v) the abolition of individual member voting rights; and (vi) the incorporation of the LSE as a limited company (source: <http://www.londonstockexchange.com/en-gb/about/cooverview/history.htm>).

²⁴ The first statutory framework for regulating the UK securities and futures industry was established at this time under the Financial Services Act 1986 (‘FSA’) when the Securities and Futures Association (‘SFA’), one of the Self Regulating Organisations (‘SROs’) that the FSA set up, was put in place as regulator. From December 2001, the SFA and other SROs were subsumed under the Financial Services Authority (‘FSA’) established by the FSA’s replacement, the Financial Services and Markets Act 2000 (‘FSMA’). In addition to regulation at UK level, the EU has been increasingly active since the early 1990s’ in laying the legal and regulatory foundation for the integration of EU financial markets, notably (before MiFID) with the Investment Services Directive (1993) and the Financial Services Action Plan (1995): see paragraph B.7 below.

²⁵ For example the LSE first introduced its mainframe based MPDS (Market Price Data Service) jointly with Extel in 1972. By the early 1980s, it had also introduced two further services, EPIC-CRS (Exchange Price Information Computer – Computer Readable Services) and TOPIC (Teletext Output Price Information Computer) so that when the FTSE 100 index was launched in January 1984 it was published on each of MPDS, EPIC and TOPIC. SEAQ (Stock Exchange Automated Quotations) was introduced in time for Big Bang in October 1986 as a screen based, quote driven, trading front end into EPIC. SETS (Stock Exchange Trading System) was launched in 1997 as the LSE’s electronic order book. Tradelect, the LSE’s next generation trading system was launched on 17 June 2007. For a lively description of the early years of computers in the City, see David Kynaston ‘The City of London, Volume IV, A Club No More (1945 – 2000)’ (2001) at pages 146-147.

trade reporting. However, HM Treasury still estimates that implementing MiFID in the UK, which it anticipates will affect between 2,100 and 2,800 firms²⁶, will cost around £1bn in one-off implementation charges and £100m annually, much of which will relate to technology²⁷.

Just as it was not possible in autumn 1986 to anticipate how big 'Big Bang' would be so it is not possible now, on the threshold of MiFID, accurately to predict its effect. However, given the potent consequences of liberalisation of and the application of technology to financial markets outlined above, it would be unwise to underestimate MiFID's likely impact²⁸.

²⁶ Of which 5% are estimated to be large firms, 20% medium-sized firms and 75% are small firms: see paragraph 9 of the Regulatory Impact Assessment at the Explanatory Memorandum referred to in at footnote 18.

²⁷ The annual benefits are put at around £0.2bn and capital markets integration benefits at around £0.24bn: see paragraph 38 of the Regulatory Impact Assessment at the Explanatory Memorandum referred to in at footnote 18.

²⁸ Even with a sterner regulatory look at the more complex end of financial instruments in the immediate aftermath of the financial turbulence of late summer 2007.

B. MiFID: THE LEGISLATIVE CONTEXT

6. **The MiFID legislative labyrinth.** MiFID regulation is at two levels, EU and UK. Figure 1 below illustrates at both levels the legislation and consultations that preceded it as it applies in the UK. When it is recalled that the UK is one of the thirty countries where MiFID is to apply and the country whose rules before November 2007 were closest to MiFID, the scale of this legislative endeavour becomes plain.
7. **Regulation at EU level: the FSAP.** At EU level, the legal and regulatory foundation for the integration of EU financial markets was laid initially by the 1995 Financial Services Action Plan (“FSAP”)²⁹, built on in turn by the 2005 White Paper on Financial Services³⁰. A core part of the FSAP was the ISD of 1993³¹, MiFID’s forerunner. The ISD was narrower in scope and its ‘passporting’ system of permitting investment firms to carry on business around the EU was widely perceived not to have worked. Securities regulators therefore started discussing a second, improved set of rules shortly after the ISD was passed, and those discussions led to MiFID in April 2004.
8. **MiFID: levels 1, 2, 3 and 4.** MiFID replaces the ISD on 1 November 2007. The legislation accords with the Lamfalussy Process³², a four step procedure where:
 - **level 1** is the framework legislation (MiFID itself);
 - **level 2** is the technical implementing measures (the MiFID level 2 directive and regulation³³);
 - **level 3** is joint interpretation recommendations, common standards and consistent guidelines published by CESR³⁴ for the consistent implementation of levels 1 and 2; and
 - **level 4** is Commission verification of Member State compliance with EU law (for MiFID, the level 1 and 2 legislation).

²⁹ The FSAP consisted of 42 measures, whose key elements were the Investment Services Directive (“ISD”) (1993/22/EC, OJ 1993 L141/27); the Prospectus Directive 2003/71/EC, (OJ 2003 L345/64); the Market Abuse Directive (2003/6/EC, OJ 2003 L96/1); and the Transparency Directive (2004/109/EC, OJ 2004 L390/38). Each directive was amplified in implementing directives and regulations.

³⁰ http://ec.europa.eu/internal_market/finances/docs/white_paper/white_paper_en.pdf

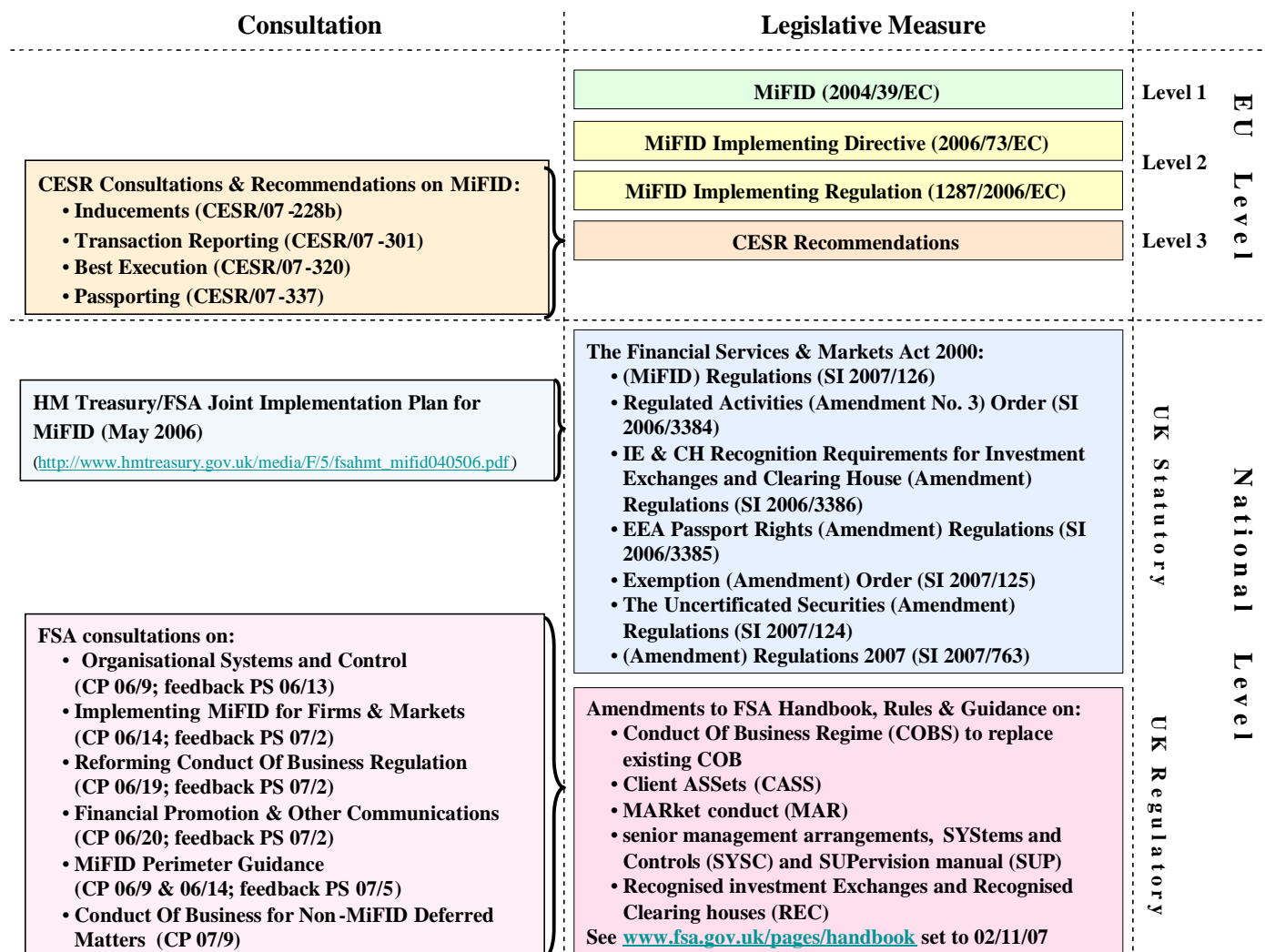
³¹ See footnote 29.

³² See for example, Commission Staff Working Document on ‘The application of the Lamfalussy Process to EU securities markets legislation: a preliminary assessment by the Commission Services’, November 2004 (http://ec.europa.eu/internal_market/securities/docs/lamfalussy/sec-2004-1459_en.pdf)

³³ Commission Directive 2006/73/EC of 10 August 2006 (OJ 2006 L241/26 - http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_241/l_24120060902en00260058.pdf); Commission Regulation (EC) 1287/2006 of 10 August 2006 (OJ 2006 L241/1 - http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_241/l_24120060902en00010025.pdf). Under EU law generally, regulations are directly applicable in national Member State law, whilst directives need national legislation to implement them.

³⁴ The Committee of European Securities Regulators: see <http://www.cesr-eu.org/>

FIGURE 1: THE MiFID LEGISLATIVE LABYRINTH IN THE UK



9. **MiFID in the UK: FSMA, HM Treasury and the FSA.** Regulation in the UK itself is effectively at three levels:

- the level 2 Regulation (1287/2006), which is directly applicable³⁵;
- the specific secondary legislation that HM Treasury has passed by way of FSMA delegated legislation (as Statutory Instruments³⁶) and;
- the new FSA Handbook³⁷ that will apply from 1 November 2007.

³⁵ Under EU law, “[a] regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States. A directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods” (Article 249 EU Treaty).

³⁶ See figure 1 above for the main Statutory Instruments.

³⁷ See <http://fsahandbook.info/FSA/html/handbook/>. The Handbook consists of High Level, Prudential and Business Standards; Regulatory and Redress Processes; Specialist Sourcebooks; Listing and Prospectus Rules; and Handbook and Regulatory Guides.

The UK approach to MiFID implementation is called ‘intelligent copy-out’ which involves transposing into (primarily) the new FSA Handbook the level 1 and 2 directives with minimum necessary change so as to avoid ‘gold plating’ and reduce conflict between the expression of the rules at EU and UK levels. The changes that MiFID will bring about to the Handbook have been subject to extensive consultation (see figure 1) and relate mainly (but not exclusively) to:

- **High Level Standards:** *SYSC* (Senior Management Arrangements, Systems and Controls);
- **Business Standards:** *COB* (New Conduct of Business), *CASS* (Client Assets) and *MAR* (Market Conduct);
- **Regulatory Processes:** *SUP* (Supervision); and
- **Specialist Sourcebooks:** *REC* (Recognised Investment Exchanges and Recognised Clearing Houses).

10. **Current status of MiFID around the EU.** Although MiFID’s implementation date is 1 November 2007, not all the thirty countries affected are anticipated to have completed their transposition of the rules into their national law by that date³⁸. This can be expected to lead to some initial uncertainty in the months after October 2007 on what rules apply where and particularly where and how the ‘home country regulation’ principle will apply.

³⁸ See http://ec.europa.eu/internal_market/securities/isd/mifid_implementation_en.htm for the ‘MiFID Transposition State of Play’.

C. MiFID BUILDING BLOCKS: DEFINITIONS AND SCOPE

11. **Introduction.** Before turning to particular technology issues that arise out of MiFID, this section provides an overview of MiFID and how it operates. Briefly, MiFID applies to:
- specific types of **financial instruments** [paragraph C.12 below];
 - specific **investment services and activities** in relation to them [C.13];
 - **investment firms** carrying out investment services and activities [C.14 and C.15]:
 - imposing on them certain **organisational** [C.16] **and operational** [C.17] **requirements**; and
 - conferring on them certain ‘**passporting**’ and other rights and benefits [C.18] ; and
 - **particular markets** where those financial instruments are traded [C.19] and **transparency requirements** about pre- and post-trade data [C.20].
12. **MiFID financial instruments.** As mentioned above, MiFID casts a wider net than the ISD and catches³⁹:
- transferable securities;
 - money market instruments;
 - units in collective investments;
 - derivatives⁴⁰; and
 - financial contracts for differences.
13. **MiFID investment services and activities.** MiFID defines⁴¹ the following ‘investment services and activities’ for the MiFID financial instruments that it regulates⁴²:
- receiving and transmitting an order⁴³;
 - executing an order on behalf of a client⁴⁴;
 - dealing on own account⁴⁵;

³⁹ See MiFID, Annex 1, Section C.

⁴⁰ Derivatives are defined at Section C, Annex 1 of MiFID as “options, futures, swaps, forward rate agreements and any other derivative contracts”. Derivatives caught by MiFID are those relating to (i) securities, (ii) currencies, (iii) interest rates or yields or other derivative instruments, (iv) financial indices and certain other ‘financial measures’, (v) commodities (meeting stated settlement criteria) (vi) credit risk transfer and (vii) finally, a catch all covering “other derivative contracts ... having the characteristics of other derivative financial instruments” (paragraph 10, Section C, Annex 1, MiFID). Commodity derivatives are new to regulation under MiFID, most other derivatives having been regulated since the ISD came into effect.

⁴¹ at Article 4(1)(2)

⁴² Listed at MiFID, Annex 1, Section A.

⁴³ Although ‘order’ is not itself expressly defined in MiFID, ‘execution of orders on behalf of clients’ is defined at Article 4(1)(5) as ‘acting to conclude agreements to buy or sell one or more financial instruments on behalf of clients’ and it is in that sense that ‘order’ is used in this article.

⁴⁴ MiFID, Article 4(1)(5)

⁴⁵ MiFID, Article 4(1)(6)

- providing discretionary management of portfolios including financial instruments⁴⁶;
- providing investment advice⁴⁷;
- underwriting; and
- placing⁴⁸.

In addition, certain ‘ancillary services’⁴⁹ are brought within the regulatory net, including:

- custodianship services;
- lending for a transaction in which the lender is involved;
- investment banking-type advice;
- foreign exchange connected with investment services; and
- services relating to underwriting.

The above were regulated by the ISD, but are new to regulation as MiFID ancillary services are:

- investment research; and
- services relating to assets underlying MiFID derivatives.

14. **MiFID investment firms.** MiFID regulates investment firms who as a ‘regular occupation or business’ and ‘on a professional basis’ carry out investment services and activities⁵⁰. Such investment firms are subject to MiFID’s regime of organisational⁵¹ and operating requirements⁵² and passporting and other rights⁵³.
15. **Exemptions from MiFID.** The operation of MiFID’s Article 2 exemptions and Article 3 optional exemptions are superimposed on the current UK regime, which is generally broader than MiFID’s. This divergence in applying exemptions in the UK and the way in which other countries implement the MiFID exemptions are likely to make for interpretation difficulties in the early days. Very briefly, the position in the UK as a result of the combined operation of Articles 2 and 3 is that:
 - **insurance firms** are outside MiFID;

⁴⁶ MiFID, Article 4(1)(9)

⁴⁷ MiFID, Article 4(1)(4). Although providing investment advice is already regulated by FSMA in the UK, at EU level its regulation by MiFID is new and represents an extension to the ISD regime.

⁴⁸ Whether with (MiFID, Annex 1, paragraph 6) or without (paragraph 7) a firm commitment.

⁴⁹ Defined at MiFID, Article 4(1)(3) by reference to the list at Annex 1, Section B.

⁵⁰ MiFID, Article 4(1)(1)

⁵¹ MiFID, Articles 5 to 15. See C.16 below.

⁵² MiFID, Articles 16 to 26 and 28. See C.17 below.

⁵³ MiFID, Articles 31 to 34. See C.18 below.

- **credit institutions** (in the UK, banks and building societies), although outside MiFID, are within the CRD⁵⁴ and brought within the FSA's SYSC⁵⁵ as 'common platform firms' subject to MiFID and/or the CRD;
- **investment funds** (regulated by the UCITS directive⁵⁶) are outside MiFID, although its operational and organisational requirements will apply to managers in relation to discretionary portfolio management; and
- many 'high street' **retail financial services** intermediaries and many retail financial services products themselves are outside MiFID.

16. **Organisational requirements.** The level 2 implementing Directive (2006/73) sets out organisational requirements (largely relating to matters internal to the regulated firm) and operational requirements (relating to dealings with other regulated firms and intermediaries and conduct of business with clients).

In the UK, the organisational requirements go beyond the current SYSC High Level Standards in the Handbook so requiring changes to them from 1 November 2007. The organisational requirements are wide ranging and include ensuring:

- that adequate compliance arrangements are in place⁵⁷;
- risk management, internal audit, and other procedures for sound internal control and senior management responsibility⁵⁸;
- 'effective control and safeguard arrangements for information processing systems'⁵⁹, business continuity and information security⁶⁰;
- that risk in outsourcing 'critical' and 'important' operational functions is managed⁶¹; and
- that client assets are safeguarded⁶², and personal transactions⁶³, complaints⁶⁴ and conflicts of interest⁶⁵ managed.

⁵⁴ The CRD is the Capital Requirements Directive consisting of two directives of 14 June 2006. The first is 2006/48/EC on the taking up and pursuit of the business of credit institutions (OJ 2006 L177/1 http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_177/l_17720060630en00010200.pdf), replacing Directive 2000/12/EC (as subsequently amended). The second is 2006/49/EC on the capital adequacy of investment firms and credit institutions (OJ 2006 L177/1 http://eur-lex.europa.eu/LexUriServ/site/en/oj/2006/l_177/l_17720060630en02010255.pdf), the EU's flavour of the 'Framework on the International Convergence of Capital Measurement and Capital Standards' published by the Bank for International Settlements ('BIS') and universally known as 'Basel II' (see <http://www.bis.org/publ/bcbs128.htm> for the comprehensive version published in June 2006). Directive 2006/49 replaces Directive 93/6 of 15 March 1993, the EU's implementation of Basel I. Its entry into force for the 'simpler' approaches was 1 January 2007 and for the 'advanced' approaches will be 1 January 2008.

⁵⁵ See paragraph B.9 above.

⁵⁶ Directive 85/611/EEC (as subsequently amended) on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS) (<http://eur-lex.europa.eu/LexUriServ/site/en/consleg/1985/L/01985L0611-20050413-en.pdf>)

⁵⁷ MiFID, Article 13(2) and level 2 Directive, Article 6.

⁵⁸ MiFID, Articles 13(2) and (5) and level 2 Directive, Articles 7, 8 and 9.

⁵⁹ MiFID, Article 13(5), second paragraph.

⁶⁰ MiFID, Article 13(4).

⁶¹ MiFID, Article 13(5) and level 2 Directive, Articles 13, 14 and 15. See section E below.

17. **Operational requirements.** The operational requirements have been intelligently copied out into the new COBS Business Standards in the Handbook and include rules on:
- providing⁶⁶ and reporting⁶⁷ information to clients, client categorisation⁶⁸, client agreements⁶⁹, client order handling⁷⁰ and record keeping⁷¹;
 - ‘know your customer’ and appropriateness of transactions for particular client types⁷².
 - ‘best execution’⁷³; and
 - inducements⁷⁴.
18. **‘Passporting’: provision of services by investment firms throughout the EU.** MiFID aims to improve on the ISD and provide an effective ‘passport’ for investment firms authorised in one Member State to:
- “freely perform investment services and/or activities within [the territories of the other Member States] provided that such services are covered by its authorisation.”⁷⁵**
- Authorisation granted in the ‘Home Member State’ (generally, the country of the investment firm’s registered or head office) is to be treated as prior authorisation for an investment firm to perform those authorised investment services or activities in any other Member State.
19. **The MiFID regulatory framework for markets.** For the markets themselves, MiFID in effect transposes the regime that already applies in the UK under FSMA and adopts it across the EU for markets where MiFID financial instruments are traded⁷⁶. In doing so, it removes the widespread practice of ‘concentration’ in the continental EU that the ISD had allowed (whereby one market only in a particular country was authorised for trade execution and reporting) and introduces competition along UK lines in and between the venues where

⁶² MiFID, Article 13(7) and (8) and 19(3) and level 2 Directive, Articles 16 to 20 and 32.

⁶³ MiFID, Article 13(2) and level 2 Directive, Articles 11 and 12.

⁶⁴ MiFID, Article 13(2) and level 2 Directive, Article 10.

⁶⁵ MiFID, Articles 13(3) and 18 and level 2 Directive, Articles 21 to 23.

⁶⁶ MiFID, Articles 19(2) and (3) and level 2 Directive, Articles 27, 30, 31 and 33.

⁶⁷ MiFID, Article 19(8) and level 2 Directive, Articles 40 to 43.

⁶⁸ MiFID, Article 19(3) and level 2 Directive, Article 28.

⁶⁹ MiFID, Article 19(3) and level 2 Directive, Article 29.

⁷⁰ MiFID, Articles 19(1) and 22(1) and level 2 Directive, Articles 47 to 49.

⁷¹ MiFID, Article 13(6) and level 2 Directive, Article 51.

⁷² MiFID, Articles 19(1), (4), (5), (6) and (7) and level 2 Directive, Articles 36 to 39.

⁷³ MiFID, Articles 19(1) and 21(1) and level 2 Directive, Articles 44 to 46. The requirement set out at Article 21(1) of MiFID is that investment firms are to take all reasonable steps to obtain when executing orders the best possible result for their clients taking into account a range of factors over and above just price. By Article 21(2), this obligation effectively translates to establishing and implementing a best execution policy.

⁷⁴ MiFID, Article 19(1) and level 2 Directive, Article 26.

⁷⁵ MiFID, Article 31(1), building on Article 5(1).

⁷⁶ See paragraph A.5 above.

trading in MiFID financial instrument may be executed and reported⁷⁷. In achieving this, MiFID introduces new defined terms for the mechanisms by which and the places where trades are executed and the market participants who execute them.

To put this into the business context, when a buy-side investor client, typically a fund manager, wishes to buy MiFID financial instruments, it will approach a sell-side intermediary to provide execution. The intermediary will use one of a number of mechanisms or platforms to execute its client's business. The intermediary may also use such mechanisms to deal on own account and execute business from its in-house proprietary trading desk. These mechanisms include, in the language of MiFID (shown emphasised):

- the electronic order book or other **RM** (*'Regulated Market'*⁷⁸) operated by a stock exchange⁷⁹ or other **MO** (*'Market Operator'*⁸⁰) where the trade is automatically executed by the MO's RM and subject to its rules⁸¹;
- an **MTF** (*'Multilateral Trading Facility'*⁸²), an order matching engine⁸³ run by an intermediary in competition with exchanges⁸⁴ on the basis of binding rules; and
- **SI**s (*'Systematic Internalisers'*⁸⁵), investment firms with high volumes of buy and sell orders and own account dealing who cross or match as much of this business as possible before trading on an RM.

20. **Transparency requirements: pre- and post-trade data.** Market transparency is a key objective of securities regulators in seeking to ensure investor protection, an orderly market and a level playing field. This is particularly the case where new trade execution and reporting venues are expressly envisaged as the concentration rules are removed and competition is opened up. Accordingly, MiFID introduces certain pre- and post-trade

⁷⁷ The broker-dealer businesses of the large investment banks announced Project Turquoise (in November 2006) to launch a new trade execution market (set for launch in Q1 2008) and Project Boat (in September 2006) to create from November 2007 a platform for trade reporting OTC (Over The Counter) and other trades and disseminating market data. The initial members of Turquoise were Citigroup, Credit Suisse, Deutsche Bank, Goldman Sachs, Merrill Lynch, Morgan Stanley, and UBS. The initial members of Boat were the Turquoise members and ABN Amro and HSBC. With the launch of Turquoise and Boat, events will have come full circle, with the successors to the old broking and jobbing firms whose members were LSE members when it before Big Bang (see footnote 25 above) was a club effectively forming their own new clubs.

⁷⁸ MiFID, Article 4(1)(14)

⁷⁹ SETS, NSC or Xetra, Euronext or Deutsche Börse for, the LSE example.

⁸⁰ MiFID, Article 4(1)(13)

⁸¹ Such a trade is also known as 'on book', as opposed to 'off book': a trade carried out subject to the MO's rules, but not on its electronic order book; and 'off exchange': a trade not subject to MO's rules and carried out away from an RM, also known as 'OTC' or over the counter.

⁸² MiFID, Article 4(1)(15)

⁸³ For example, virt-x, PLUS Markets and Instinet's Chi-X system.

⁸⁴ In the UK, MTFs are called ATSS (Alternative Trading Systems). MTFs and ATSS are also akin to ECNs (Electronic Communication Networks).

⁸⁵ MiFID, Article 4(1)(7)

information disclosure requirements that apply to RMs⁸⁶, MTFs⁸⁷ and SIs⁸⁸ and other new rules are included for RMs⁸⁹. Essentially:

- on price formation (pre-trade data transparency), quoting will be mandatory for SIs for all liquid⁹⁰ shares, the price may not be improved for retail trades and unexecuted limit orders must be displayed;
- on trade reporting (post-trade data transparency), the UK's post-trade transparency regime⁹¹ is extended to trades (including OTC) in all shares admitted on an EEA regulated market ('RM')⁹²; and
- market data is to be published as close to real time as possible, in a way that facilitates consolidation and monitoring to ensure data integrity.

⁸⁶ MiFID, Articles 44 and 45

⁸⁷ MiFID, Articles 29 and 30

⁸⁸ MiFID, Article 27

⁸⁹ MiFID, Article 36 to 47.

⁹⁰ A share traded daily with a free float not less than €500m with more than either 500 transactions a day or €2m daily turnover.

⁹¹ Trade reports are currently covered at Rules 3500 to 3595 of the LSE. By Rule 3500, "[u]nless exceptions apply, a trade report shall be submitted to the Exchange trading system for each transaction effected on Exchange". A "[t]rade report" is defined as: "a report of the details of a transaction effected on Exchange which is made to the Exchange Trading System and which the Exchange may publish subject to certain criteria". Rules 3540 to 3544 set out standard trade report deadlines – for transactions after 08.00 and during the trade reporting period (07.15 to 17.15 hours in the UK), the trade report must be submitted within three minutes of execution of the transaction (Rule 3542). Rules 3550 to 3557 set out the required information that a trade report is to contain, including time of transaction, the parties to it, security identifier, number of shares, transaction price, etc. Rules 3590 to 3595 deal with publication and provide "[t]he Exchange shall publish details of transactions derived from trade reports as specified in the guidance to this rule" (Rule 3590) and "shall publish in the Stock Exchange Daily Official List a record of transactions in officially listed securities or AIM securities effected on Exchange and reported by Member Firms" (Rule 3591).

⁹² In MiFID and the Level 2 Regulation, the following Level 1 articles relate to post-trade transparency for RMs and MTFs: in MiFID itself, Articles 28 (post-trade disclosure by investment firms); 30 (post-trade transparency requirements for MTFs); and 45 (post-trade transparency requirements for RMs); and in the Level 2 Regulation, Articles 27 (post-trade transparency obligation); 28 (deferred publication of large transactions); 29 (publication and availability of pre- and post-trade transparency data); 30 (public availability of pre- and post-trade information); 32 (arrangements for making information public); 33 (calculations and estimates for shares admitted to trading on a regulated market) and 34 (publication and effect of results of required calculations and estimates).

D. MiFID AND TECHNOLOGY - PARTICULAR ISSUES (1): SYSTEMS MANAGEMENT AND CONTROLS

21. **MiFID and technology: general.** As discussed above, technology is integral to the operation of financial instruments markets and permeates the regulatory landscape. However, the policy approach to regulation adopted in MiFID and in the UK is technology neutral: the rules that MiFID establishes are normative, substantive and open as to system and platform architecture and technology. This means that technology issues as such tend to feature less than might otherwise be expected in MiFID's express provisions. The following sections highlight MiFID and technology in four key areas – organisational and operational requirements generally [this **Section D**]; outsourcing [**Section E**]; transparency information [**Section F**]; and market data [**Section G**].

22. **Organisational requirements: SYSC and operational risk.** The SYSC (Senior Management Arrangements, Systems and Controls High Level Standards) Handbook covers the requirement of a firm to take reasonable care to establish and maintain (at SYSC 3.1) appropriate systems and controls for its business and (at SYSC 3.2.6) effective systems and controls for complying with the regime's standards and rules countering financial crime risks. The outsourcing rules are covered in Section E below, but generally speaking the SYSC 3.1 and 3.2.6 rules and the SYSC 13 guidance apply after as well as before 1 November 2007, covering from that time the financial instruments, services and activities and investment firms that are new to regulation. SYSC 13.2.1 states that:

“SYSC 13 provides guidance on how to interpret SYSC 3.1.1 and SYSC 3.2.6, which deal with the establishment and maintenance of systems and controls, in relation to the management of operational risk. Operational risk has been described by the Basel Committee on Banking Supervision as "the risk of loss, resulting from inadequate or failed internal processes, people and systems, or from external events". This chapter covers systems and controls for managing risks concerning any of a firm's operations, such as its IT systems and outsourcing arrangements. It does not cover systems and controls for managing credit, market, liquidity and insurance risk”.

SYSC 13.7.1 sets out guidance for establishing and maintaining appropriate processes and systems to manage operational risk and states that firms should have regard to the importance and complexity of processes and systems used; failure controls; regulatory compliance; operational continuity; and risk monitoring.

SYSC 13.7.6 deals specifically with IT systems, described (in SYSC 13.7.5) as:

“the computer systems and infrastructure required for the automation of processes, such as application and operating system software; network infrastructure; and desktop, server, and mainframe hardware”

and points up the need in relation to IT to have regard to organisation, reporting and oversight; business strategy; and the appropriateness of procurement, development, operations and support activities.

Information security is dealt with at SYSC 13.7.7 where the watchwords are confidentiality, integrity, availability, authentication, non-repudiation and accountability.

Business continuity is dealt with in the guidance at SYSC 13.8 in relation to external events and other changes.

23. **Operational requirements.** As regards dealings with clients, intermediaries and other firms, the FSA has taken the opportunity to consult extensively about the new MiFID rules outlined at C.17 above and these have now generally been intelligently copied out into COBS (the New Conduct of Business Rules Business Standards in the FSA Handbook) that come into effect on 1 November 2007. Many MiFID requirements like best execution are effectively already in place in the UK so, as with organisational requirements, the substantive level of change in the UK is lower than in many other Member States.

In this respect MiFID is 'client centric' in its policy approach as to 'Know Your Client', appropriateness, best execution, transaction reporting, client reporting, data retention, etc. Its impact crosses traditional lines of business ('LoB') and can be expected to hasten IT systems' development away from a 'silo'd' approach to LoB towards a more unified and integrated approach to data throughout the enterprise based on shared IT infrastructures ('single client view') and data storage/archiving (records, compliance, analysis, etc).

E. MiFID AND TECHNOLOGY - PARTICULAR ISSUES (2): OUTSOURCING

24. **Outsourcing of ‘critical’/‘important’ functions under MiFID and the CRD.** MiFID in effect sets out a code⁹³ for outsourcing, requiring (at Article 13(5)) that:

“[a]n investment firm shall ensure, when relying on a third party for the performance of operational functions which are critical for the provision of continuous and satisfactory service to clients and the performance of investment activities on a continuous and satisfactory basis, that it takes reasonable steps to avoid undue additional operational risk. Outsourcing of important operational functions may not be undertaken in such a way as to impair materially the quality of its internal controls and the ability of the supervisor to monitor the firm’s compliance with all obligations.”

Article 22(1) of the CRD⁹⁴ (the Capital Requirements Directive that applies to banks and building societies in the UK) also deals with operational risk. Consequently, the FSA has taken the opportunity in the new SYSC Handbook of bringing ‘Common Platform Firms’ – firms carrying on MiFID business and/or CRD business - under one set of rules at SYSC 8 (in particular SYSC 8.1.6, 8.1.7 and 8.1.8) and guidance at SYSC 13.9 and the MiFID Connect Guideline⁹⁵.

25. **The MiFID Connect Guideline.** The MiFID Connect Guideline is a practice note covering:
- at **Section 1** an introduction to and overview of the new rules;
 - at **Section 2** when the outsourcing obligation will apply to Common Platform Firms;
 - at **Section 3** the nature of the outsourcing obligation and how it will vary by type of arrangement;
 - at **Section 4** the detailed requirements;

and including at Appendices 1 and 2 the text of the detailed EU rules and a glossary.

26. **The regulated outsourcing agreement.** The requirements imposed under MiFID after 1 November 2007 do not differ in substance significantly from those applying before, which in any case were effectively a codification of best market practice for outsourcing in the financial services context. So, the rules require a written agreement between regulated firm and service provider⁹⁶; and this as a practical matter assumes greater significance for regulated firms both as the primary statement of the parties’ rights and obligations and

⁹³ At Article 13(5) of MiFID itself; and at Recitals 14 and 18 to 22 and Articles 13(1) and (2), 14(1) to (5) and 15(1) to (5) of the level 2 Directive.

⁹⁴ See footnote 54 at paragraph C.15 above.

⁹⁵ See http://www.mifidconnect.org/content/1/c4/92/35/MiFID_Connect_Outsourcing_Guide.pdf; the MiFID Connect ‘guideline on the application of the outsourcing requirements under the FSA rules implementing MiFID and the CRD in the UK’.

⁹⁶ Level 2 Directive, Article 14(3), SYSC 8.1.9 and Section 4.4, MiFID Connect Guideline.

secondarily in demonstrating regulatory compliance through consideration of the relevant risks. Very briefly, a regulated outsourcing agreement will need to cover at a minimum⁹⁷:

- on the service provider's side, obligations as to:
 - capacity, authorisation and reliable and professional performance of the services⁹⁸;
 - service levels and appropriate steps to measure, monitor, report, discuss and if necessary remediate⁹⁹;
 - supervision and management of the risks associated with the outsourcing¹⁰⁰;
 - disclosure of any development that may have a material impact on its performance consistently with the contract and in compliance with applicable law¹⁰¹;
 - cooperation with relevant regulatory authorities¹⁰²; and
 - protection of regulated firm and client confidential information¹⁰³;
- on the firm's side:
 - demonstration of supervision and management of outsourcing risks¹⁰⁴;
 - rights to access data and service provider premises for the firm, its auditors, the FSA and any other relevant regulator¹⁰⁵;
 - the appropriate action that is to be taken if the service provider is not performing its obligations¹⁰⁶; and
 - a right to terminate if necessary, but showing that this will not affect client service quality or continuity¹⁰⁷; and
- contingency planning for disaster recovery and testing backup facilities¹⁰⁸.

27. **Practical difficulties: non-material outsourcing.** As a practical matter, the area where difficulties may be expected to arise, at least in the early days, centres on whether or not an arrangement which may be characterised as outsourcing is 'critical' or 'important'. The significance of this determination in any given case is amplified as there is no phase-in period:

⁹⁷ Consideration should also be given in the ordinary course to the other usual outsourcing issues, including TUPE and other staff transfer issues on first and subsequent generation outsourcing; change control; 'most favoured nation', benchmarking, technology refresh, continuous improvement and other customer protection measures; governance issues – institutional, meetings, authority levels, staff continuity and dispute resolution; and disengagement (exit) planning.

⁹⁸ SYSC 8.1.8(1).

⁹⁹ SYSC 8.1.8(2) and Section 4.2(a), MiFID Connect Guideline.

¹⁰⁰ SYSC 8.1.8(3) and Section 4.3(c), MiFID Connect Guideline.

¹⁰¹ SYSC 8.1.8(6) and Section 4.3(d), MiFID Connect Guideline.

¹⁰² SYSC 8.1.8(8) and Section 4.3(e), MiFID Connect Guideline.

¹⁰³ SYSC 8.1.8(10) and Section 4.3(f), MiFID Connect Guideline.

¹⁰⁴ SYSC 8.1.8(5) and Section 4.2(c), MiFID Connect Guideline.

¹⁰⁵ SYSC 8.1.8(9) and Section 4.2(e), MiFID Connect Guideline.

¹⁰⁶ SYSC 8.1.8(4) and Section 4.2(b), MiFID Connect Guideline.

¹⁰⁷ SYSC 8.1.8(7) and Section 4.8, MiFID Connect Guideline.

¹⁰⁸ SYSC 8.1.8(11) and Section 4.2(f), MiFID Connect Guideline.

compliant regulated outsourcing arrangements generally need to be in place in the UK for 1 November 2007.

SYSC 8.1.5¹⁰⁹ provides that advisory services outside the firm's regulated services (including legal advice, training and security) and procurement of standardised market data services and price feeds are not 'critical' or 'important'.

Section 3 of the MiFID Connect Guideline is helpful here in providing (at Section 3.3) two lists of outsourcing arrangements, one that is 'unlikely' and the other that is 'likely' to constitute outsourcing of 'critical' or 'important' functions. The first ('unlikely') list includes participation in settlement and payment systems and buying standard off the shelf software and ad-hoc support. On the other hand and in the technology area, ongoing systems support and management and data storage are 'likely' to be 'critical' or 'important'.

¹⁰⁹ Reflecting Article 13(2) of the level 2 Directive.

F. MiFID AND TECHNOLOGY - PARTICULAR ISSUES (3): TRANSPARENCY DATA

28. **Transparency information: level 2 Regulation, Articles 30 and 32.** Article 30 of the level 2 Regulation provides that:

“pre- and post-trade information shall be considered to be made public or available to the public if it is made available generally through one of the following to investors in the Community:

- (a) the facilities of a [RM] or an MTF;**
- (b) the facilities of a third party;**
- (c) proprietary arrangements”.**

Article 32 of the level 2 Regulation provides that:

“Any arrangement to make information public, adopted for the purposes of Articles 30 and 31¹¹⁰ shall satisfy the following conditions:

- (a) it must include all reasonable steps necessary to ensure that the information to be published is reliable, monitored continuously for errors, and corrected as soon as errors are detected;**
- (b) it must facilitate the consolidation of the data with similar data from other sources;**
- (c) it must make the information available to the public on a non-discriminatory commercial basis at a reasonable cost.”**

These rules have in turn been considered by CESR¹¹¹ and subject to CESR’s level 3 guidance.

29. **Transparency information: CESR’s level 3 guidance.** CESR’s level 3 guidelines and recommendations on publication and consolidation of MiFID market transparency data¹¹² (“guidance”) were published in February 2007 following a public consultation (“consultation”) begun in October 2006¹¹³.

The guidance sets out ten guidelines and three recommendations across the four areas of data quality, publication arrangements, transparency information availability and publications standards.

30. **CESR’s level 3 guidance: data quality and publication.** In the areas of data quality and publication arrangements, CESR, after noting (at para 2.3) that there was:

“a risk that post-trade information may be duplicated if a single published trade is counted more than once during the consolidation process”

¹¹⁰ Article 31 is the level 2 measure for Article 22(2) of MiFID about client limit orders.

¹¹¹ See footnote 34.

¹¹² http://www.cesr-eu.org/index.php?page=document_details&from_title=Documents&id=4228

¹¹³ http://www.cesr-eu.org/index.php?page=consultation_details&id=78

issued Guideline 2 to the effect that MiFID would be complied with where investment firms ('IFs') trading away from an RM or MTF, RMs and MTFs published each trade via only one primary publication channel.

31. **CESR's level 3 guidance: availability of transparency information.** In the area of availability of transparency information, Guideline 6 provided in relation to the MiFID requirement to "publish post-trade 'as close to real time as possible' and no later than 3 minutes" that RMs and other regulated entities taking up to 3 minutes for publication 'on a frequent basis' should be required to account for the length of time needed.
32. **CESR's Level 3 guidance: publication standards.** In the area of publication standards:

"5.2 At the present time, the level of data standardisation within the EEA securities industry is somewhat mixed. Industry participants publish quotes and trades to a variety of interested parties (exchanges, regulators, data distributors) using a range of protocols and formats. While the market is clearly already dealing with many different standards and sources of data, the cost of mapping one standard to another can be significant and contributes to higher overall information costs for the industry.

5.3 The limited use of common field formats, reference data, protocols and messaging standards across the EEA financial sector may pose barriers to transparency data consolidation. CESR sees considerable value in the industry converging to a single or a limited number of interoperable data formats and protocols. Common data formats would promote full interoperability between systems for the exchange of information.

5.4 While CESR does not propose to mandate the use of specific formats and protocols, we do think the industry should avoid the introduction of new standards".

Recommendation 2 accordingly encouraged the use as far as possible of ISO standard formats and relevant content, listing five standards (ISO 8601 for day and time; 6166 for instrument identification; 4217 for price notation; and 10383 for venue identification for RMs and MTFs) in relation for example to the 23 field identifiers for trade report content that MiFID lists¹¹⁴.

¹¹⁴ Regulation 1287/2006, Table 1, Annex 1, referred to in Article 27.

G. MiFID AND TECHNOLOGY - PARTICULAR ISSUES (4): MARKET DATA

33. **Market data.** Although market data is not expressly dealt with by MiFID – the approach is to leave developments to market forces – it is expected to be one of the areas where MiFID’s impact will be most keenly felt. The technology trends identified at paragraph A.5 above – towards algorithmic or ‘black box’ trading, direct trading and ever lower latency – are causing the market data business to undergo significant change. From a pattern of business that was recognisable from the mid-1990s to the mid 2000s¹¹⁵, the combination of MiFID opening up trade execution and trade reporting competition across Europe¹¹⁶ and automated, direct, low latency trading herald a time of rapid development¹¹⁷.
34. **Datamonitor market data report.** Datamonitor, in its May 2007 report on ‘the growing significance of market data’ highlighted that:
- “At present, market structural changes in the form of upcoming regulations as well as innovations in technology are two key factors driving change in the market data environment. Moreover, this is acting as a catalyst for industry players to evolve and adapt their market data models to the rapidly changing market. ...**
- As Reg NMS and MiFID will ‘fuel’ growth in market data volumes [and] are set to alter the current market landscape, many financial organisations are using these mandates as impetus and catalysts to placing a great deal of emphasis on market data cost reduction, efficiency, management and profitability. ...**
- Across the globe regulators continue to introduce further rules for financial institutions. Several are targeted at promoting ‘best execution’ and transparency around trading in a range of financial instruments. Hence, these regulations are placing immense pressure on market data infrastructure while cost pressures are forcing the need for transformation.”¹¹⁸**
35. **A more muscular approach to market data rights after MiFID?** The changing dynamics of the market data industry do not of themselves change the traditional legal analysis of the rights that arise in relation to trade and market data. However, in a more competitive environment they are likely to change how industry players view the data they generate and use and their rights in it. Up to now, market data contracts have tended to be seen as a rather arcane, esoteric area, reflecting a prevailing view of market data as a utility to be used rather than an asset to be enhanced. Over time, the structural and technology changes that are bearing on the market data business are likely to change that view as companies become more muscular in protecting and exploiting an asset that will increasingly confer advantage and differentiation in the market place.

¹¹⁵ By way of snapshot, the real-time market data industry was estimated to be worth around \$7bn in 2004, of which Reuters plc accounted for 37% or \$2.6bn (60% of total revenues); Bloomberg, 44% (\$3.1bn); and Thomson Financial (‘TF’), 7% (\$0.49bn of total \$1.72bn revenues). The market consisted of approximately 1,000,000 screens, of which 328,000 were Reuters; 200,000, Bloomberg; and 220,000, TF. (Sources: the 2004 ‘Inside Market Data Reference’ report; ft.com).

¹¹⁶ And the Reg NMS changes in the USA – see footnote 13.

¹¹⁷ This is in part the backdrop to the announcement on 15 May 2007 that Thomson Corporation, TF’s parent, had agreed to buy Reuters plc for \$17bn in cash and shares.

¹¹⁸ Executive Summary, pages 2 and 3.

36. Legal rights in trade and market data. Essentially, data itself can be considered to be relatively inert in legal terms: a useful expression is that ‘rights exist in relation to, but not in, data’. Under UK law, these rights include:

- copyright;
- database right;
- confidentiality; and
- contract (fettered in certain cases by regulation and competition law¹¹⁹).

and may include patents in relation to processes or inventions affecting market data. Each right is enforceable according to its own legal rules, and each has advantages and limitations. For example, copyright, database right and (to an extent) confidentiality are intellectual property rights enforceable *in rem* – against the whole world – whilst contractual rights enforceable *in personam* – just between parties to a contract¹²⁰.

There is recent authority that, irrespective of the IPR position, a data holder can charge for it. In *Attheraces* at first instance, the trial judge, Etherton J said¹²¹:

“I agree with [the defendant] that it is entitled, in principle, to impose a charge for use of its ... data ... whether or not [it] has IP rights in respect of the data, and, in particular, database rights under the Databases Directive and the Databases Regulations or copyright, and irrespective of the extent of any such rights. [The Defendant] has, in the data, a valuable commodity, for which it is entitled to charge. There is no authority to the contrary ...”.¹²²

A more muscular approach to market data is likely to see market participants taking greater pains to ensure that their contracts, policies and dealings maximise their legal position on data rights ownership. Equally, it is likely that common licensing terms in market data contracts – including scope of licence, creation of and rights in derivative works and post term use – will come in for greater negotiation in the post-MiFID and Reg NMS world of automatic, direct, low latency trading.

**Kemp Little LLP (RHK)
London
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¹¹⁹ For a discussion of how these rights operate in relation to data, see ‘Database right and the ECJ judgment in BHB v. William Hill: Dark horse or non-starter?’ Kemp, Gibbons, [2005] 21 CLSR 108 – 118.

¹²⁰ Rights in relation to information may also be conferred by regulation – for example, the subject access provisions in the Data Protection Act 1998 and the powers of the courts and regulators to require information disclosure, etc: these types of rights are not considered further here.

¹²¹ *Attheraces v The British Horse Racing Board* [2005] EWHC 3015 (Ch) at paragraph 285. For the full case see <http://www.bailii.org/cgi-bin/markup.cgi?doc=/ew/cases/EWHC/Ch/2005/1553.html&query=attheraces&method=all>

¹²² Emphasis added. This statement points up the importance of the old wireline cases (see footnote 72 of the article at 21 CLSR 108, cited above) and shows the importance in database cases of looking at all avenues of protection. It was also jumped on by the BHB in their press release about the judgment, where the BHB CEO said: “We nevertheless note that Justice Etherton has explicitly said that, irrespective of any intellectual property, database or other rights, “BHB has, in the data, a valuable commodity for which it is entitled to charge” (http://www.britishhorseracing.com/inside_horseracing/media/2.5.1.1.1.asp?item=003093).