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Financial Services Authority

Hedge funds: A discussion of risk and regulatory engagement

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Annex 1: Typical hedge fund structure

Annex 2: Summary list of questions

The Financial Services Authority invites comments on this Discussion Paper. Please send us your comments to reach us by 28 October 2005.

Comments may be sent by electronic submission using the form on the FSA's website at (www.fsa.gov.uk/pubs/discussion/dp05_04_response.html).

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1 Overview

Introduction

- 1.1 In 2002 we published Discussion Paper (DP) 16, *Hedge Funds and the FSA*. It encouraged a discussion of how UK-based hedge fund managers were regulated and the limitations of our authority over their activities. In addition, it touched on the impact of hedge funds on our market confidence and financial crime objectives.
- 1.2 There are seven main reasons why we feel it is appropriate to publish a further paper on this topic:
 - the perceived importance of hedge funds by investors, market participants, commentators and regulators is growing;
 - recent growth of the sector means that hedge funds are playing an increasingly significant role in the provision of market liquidity and are now a major source of revenue for investment banks;
 - we have increased our market surveillance and thematic supervision of hedge fund counterparties and managers as the impact of hedge funds on financial markets has continued to increase and wish to communicate our findings to the market;
 - the typical investor base of hedge funds is evolving, with pension fund exposures to hedge funds growing over time;
 - there are indications that a growing number of investment managers intend to launch onshore regulated products using some of the investment techniques typically employed by hedge fund managers (as they are allowed to by changes made to our CIS sourcebook in October 2002);

- we are simultaneously publishing a DP called *A wider range of retail investment products: consumer protection in a rapidly changing world* which considers the nature of the UK retail investment product regime and whether it continues to provide a desirable degree of consumer protection in light of increasing product sophistication (including sophisticated hedge fund related products); and
- we intend to contribute to international initiatives, both current and planned, and wish to ensure that our contributions are based upon an up-to-date assessment of the hedge fund sector and the views of key stakeholders.

1.3 In response to these developments, we are publishing this DP whose aims are to:

- clarify our current assessment of the risks posed by hedge funds to our statutory objectives as a result of their sophisticated investment management techniques and their dispersed and complex legal structures;
- articulate the distinction between the risks posed by the investment techniques employed by hedge fund managers and the risks posed by the complex legal structures employed by hedge fund managers that often involve operations in offshore tax havens;
- solicit views from stakeholders on whether our analysis of the potential risks arising in the hedge fund industry is accurate;
- inform key stakeholders about actions already in place at both a domestic and global level to mitigate these risks;
- identify further proportionate risk mitigation steps we could consider taking;
- solicit views from stakeholders that would help us reach a conclusion on whether these steps merit further consideration; and
- provide an informed basis for engaging in current global and European initiatives on hedge funds.

Who should read this paper?

1.4 This paper is addressed to investment managers and advisors, hedge fund counterparties (including prime brokers), institutional investors, commentators and analysts. It is not addressed to UK retail investors. Retail access issues are covered by our DP *A wider range of retail investment products: consumer protection in a rapidly changing world* which is published at the same time as this DP.

Summary of identified risks

- 1.5 We believe that hedge funds are playing an increasingly important role in financial markets, significantly enhancing market liquidity and market efficiency. They also offer more diversification options for investors. This positive contribution to market dynamics is anticipated to increase over time as the sector continues to grow and mature. It is in this context that we have analysed the risks inherent in the sector and the appropriate regulatory response.
- 1.6 The analysis of risks set out in this document does not include comprehensive market failure analysis. Rather, we set out an initial risk analysis based upon historical industry views and recent regulatory assessments. The paper does not purport to provide a final assessment of the impact and probability of these risks. Our intention is to identify potential risks and stimulate an informed debate that will lead to a more accurate identification of those material risks that merit further analysis. This debate should also help us to reach a conclusion on which risks associated with hedge funds are not in fact significant and do not therefore merit any form of regulatory engagement. Any action should respond to an identified market failure and be proportionate in terms of its costs and benefits. We recognise that it would not be beneficial if regulatory action caused the hedge fund industry to move to more lightly regulated jurisdictions.
- 1.7 The risks identified in this paper are sometimes generic to the whole of the investment management industry rather than just hedge fund management. Some of these risks may however be more acute in hedge fund management as this industry segment is less mature, growing rapidly and employing sophisticated investment techniques – often in new and developing markets, asset classes and products. As the purpose of this paper is to discuss hedge fund management, we do not explore optimal risk management in other types of investment firm.
- 1.8 Specifically in respect of hedge fund activities as activist shareholders, we have noted the widespread debate that has been sparked as a result of a few high-profile examples of such activism. It is our view that shareholder activism is not peculiar to the hedge fund sector but rather is generic to the entire institutional asset management industry and so can only be addressed in this broader context. The topic is therefore not covered in this paper.

Summary of the key potential risks discussed in this paper:

- **Serious market disruption and erosion of confidence;** The failure or significant distress of a large and highly exposed hedge fund – or, with greater probability, a cluster of medium sized hedge funds with significant and concentrated exposures – could cause serious market disruption. It could also erode confidence in the financial strength of other hedge funds or of firms which are counterparties to hedge funds (although in our view, at the time of publishing this paper, the probability of an event on a scale that could significantly affect UK financial stability is relatively low).
- **Liquidity disruption leading to disorderly markets;** The incidence of hedge funds collectively making concentrated investments in complex specialist financial instruments and particular market segments (usually on a leveraged basis) is increasing. Coupled with the increasing sensitivity of their investor base to performance, this can engender a significant liquidity mismatch leading to enforced asset disposals and consequently volatile and potentially disorderly markets.
- **Insufficient information to inform regulatory action;** Partly because of issues of extra territoriality, regulators have insufficient reliable and comparable data on which to base informed decisions about risk and consequently proportionate regulatory action to mitigate that risk.
- **Control issues;** Reflecting their trading (rather than management) background and their typical ownership structures, some hedge fund managers do not have the optimal skill set or incentives to create an effective control infrastructure.
- **Operational risk;** Reflecting the recent rapid growth of the sector and limited operational support arrangements, operational issues in hedge fund managers, such as late trade confirmations and non-notified trade assignments and novations, are adding significantly to market-wide operational and credit risk levels.
- **Risk management;** Clearly robust risk management is essential within the hedge fund sector. We have not observed any material weaknesses in the risk management techniques being employed, although there are particular challenges in risk managing multi-strategy portfolios and there are possible improvements that could be made with respect to stress testing. There is also potentially a developing issue for investment banks who face challenges in assessing total risk exposures arising from their combined trading, prime brokerage and investment relationships with hedge funds.
- **Valuation weaknesses;** Weaknesses in asset valuation methodologies and processes related to skill shortages and conflicts of interest are creating significant potential for ill-informed investment decisions and detriment to market confidence.

- **Market abuse;** Some hedge funds are testing the boundaries of acceptable practice concerning insider trading and market manipulation and, given their payment of significant commissions and close relations with counterparties, create incentives for others to commit market abuse.
- **Fraud;** Incentive structures, light regulatory oversight and weaker control environments increase the likelihood that hedge fund managers will commit fraud e.g. by issuing false valuations.
- **Money laundering;** Initial assessments suggest that hedge fund managers are no more likely than traditional investment managers to fail to fulfil their anti money-laundering responsibilities, although some residual risk remains.
- **Conflicts of interest;** Hedge fund fee structures may encourage pension fund consultants to excessively encourage investment in hedge funds. These fee structures could also encourage mixed traditional/hedge fund management firms to inappropriately favour the hedge funds when placing or allocating deals.

We do not currently see significant risks to UK retail consumers arising in the hedge funds sector. This is a consequence of the extremely low levels of direct retail investor participation and the fact that their indirect exposure through pension and traditional investment management vehicles is largely constrained to levels reflecting investment diversification, as opposed to core investment strategies. This risk appears however to be rising and is discussed more fully in the DP *A wider range of retail investment products: consumer protection in a rapidly changing world*.

Q1: Are the risks to our statutory objectives outlined in this paper the correct ones? These risks include: serious market disruption; an erosion of confidence in the financial strength of hedge funds and/or their counterparties; a significant liquidity mismatch leading to enforced asset disposals and disorderly markets; insufficient information to inform regulatory action; significant control, operational and potentially credit risks; weaknesses in risk management; ill-informed investment decisions and detriment to market confidence as a consequence of valuation weaknesses; market abuse by hedge funds or their counterparties; fraud; money laundering; and conflicts of interest.

Summary of risk mitigation

1.9 The paper highlights a number of current and potential actions, both at a domestic and global level, to mitigate the identified risks. It is, however, important to note that we are not proposing to undertake risk mitigation at this stage in relation to every one of the identified risks. There are a number of reasons for this targeted approach including, but not limited to:

- the risk does not appear material enough at the current time to merit action;
- there is a potential for the industry to adequately address the risk itself; or
- further work is needed before we can accurately identify the precise nature and significance of the risk and therefore the best response.

Current risk mitigation actions. We have:

- undertaken frequent **non-supervisory dialogue** with market participants on hedge fund sector issues;
- increased **thematic reviews** of hedge fund managers;
- applied **risk mitigation programmes** to relationship managed firms;
- implemented a regular '**hedge funds as counterparties**' survey;
- highlighted the importance of performing **stress testing** and commenced work with the industry to enhance the current approach to stress testing; and
- participated in **international regulatory dialogue** in fora such as the Financial Stability Forum and the Joint Forum.

Planned additional risk mitigation actions. We are:

- reorganising our resources to create a **centre of hedge fund expertise** within the Wholesale Markets Business Unit to relationship manage high-impact firms and to lead more thematic supervision of hedge fund managers;
- intending to **review our impact metrics** as part of the revised ARROW model, including greater consideration of market impact;
- undertaking **increased proactive surveillance** with respect to issues of market conduct in the hedge fund sector, both in relation to hedge fund managers and their counterparties;
- giving consideration as part of the implementation of the Markets in Financial Instruments Directive to requiring firms to identify **the hedge fund manager rather than the hedge fund as the counterparty to a trade for transaction reporting purposes**; and

- **enhancing dialogue with other international regulators** about issues that typically arise offshore such as in relation to valuation and anti money-laundering arrangements.

Potential additional risk mitigation actions on which we are seeking industry views. We are considering:

- **distinguishing hedge fund managers** more clearly from other types of discretionary investment managers/advisors for the purposes of regulatory oversight;
- **distinguishing prime brokers** more clearly, including new entrants who may be following less stringent risk management standards in the pursuit of market share;
- **collecting additional data**, based upon existing management data, from hedge fund managers to support enhanced supervisory oversight of high-impact firms and the accurate targeting of additional thematic reviews;
- encouraging industry **initiatives to improve investor due diligence and hedge fund disclosure and providing FSA guidance on appropriate disclosure standards, in particular with respect to side letters or managed accounts**;
- **encouraging improvements in hedge fund valuations** by promoting, via IOSCO or domestically, the development of administration industry codes of practice, encouraging legislative developments at EU level or developing domestic rules, stimulating the development of market solutions by, for example, investment banks, including valuation issues in the risk mitigation programmes of relevant authorised firms and issuing health warnings about the quality and independence of some hedge fund valuations; and
- further **dialogue and cooperation in an international context** with a view to sharing best practice and raising standards.

2 Background

Describing the hedge fund market

- 2.1 Neither 'hedge fund' nor 'hedge fund manager' are legally defined terms in the UK regulatory regime. There appears however to be general agreement on some key characteristics that can be associated with the hedge fund industry, both in terms of the investment management techniques employed and common structures used.

Hedge fund investment management techniques can include the use of:

- short selling;
- derivatives for investment purposes; and
- economic (debt) leverage as well as leverage embedded in financial instruments such as derivatives.

Other characteristics of hedge funds are:

- the pursuit of absolute returns, rather than measuring their investment performance relative to a benchmark;
- charging performance-based fees in addition to a management fee based solely on assets under management;
- having broader mandates than traditional funds which give managers more flexibility to shift strategy;
- high trading volumes/fund turnover; and
- frequently setting a very high minimum investment limit (e.g. US \$100,000 or higher for most funds).

- 2.2 Common hedge fund structures involve a combination of entities, of varying legal form, located in a mixture of onshore major financial centres and offshore low tax and light-touch regulatory regimes. The optimal location and form of each entity within the structure is frequently determined according to

factors such as tax efficiency, proximity to major markets and appropriate regulatory regime. In the case of UK managed hedge funds:

- the fund manager/advisor is located in the UK and authorised and supervised by us;
- prime brokers in London are generally used to execute trades, for financing, stock lending and the provision of research;
- the funds are however typically based in non-UK domiciles such as the Cayman Islands, Bermuda and the British Virgin Islands; and
- the administrators are also typically based offshore – largely in Ireland, the Cayman Islands or Luxembourg.

- 2.3 In assessing the risks posed by hedge funds it is useful to make the distinction between the investment activity and the operational structure. This is because it is possible to offer investors the opportunity to access some hedge fund style investment techniques through entirely onshore and regulated structures.

Growth of the sector

- 2.4 It is difficult to assess how many funds are operating in the industry due to the largely unregulated and sometimes opaque nature of hedge fund operations. Most hedge fund data sources estimate the total to be somewhere around 8,000 individual funds. Survivorship is an important consideration. It is estimated that around 5% of funds close every year and there are some indications that the closure rate may be rising.
- 2.5 Global hedge fund inflows were very strong for the first half of 2004 with record levels set in the second quarter of \$43bn. However, inflows slowed significantly in the second half of the year possibly as a result of comparatively weak performance compared to 2003. Despite this, figures for the full year were the highest on record with \$124bn in new assets being generated and flowing into the industry. TASS¹ estimates that since the beginning of 2000, hedge funds have attracted an additional \$250bn in new investments. Figures from HFR² and Hennessee³ confirm this trend. According to HFR, figures for the first quarter of 2005 were \$27bn, pushing the total figure invested in hedge funds past \$1,000bn for the first time.
- 2.6 Eurohedge⁴ estimates that total assets under management in the European hedge fund sector were close to \$250bn at the beginning of 2005, growing from \$170bn for the same period in 2004. It is estimated there are now over

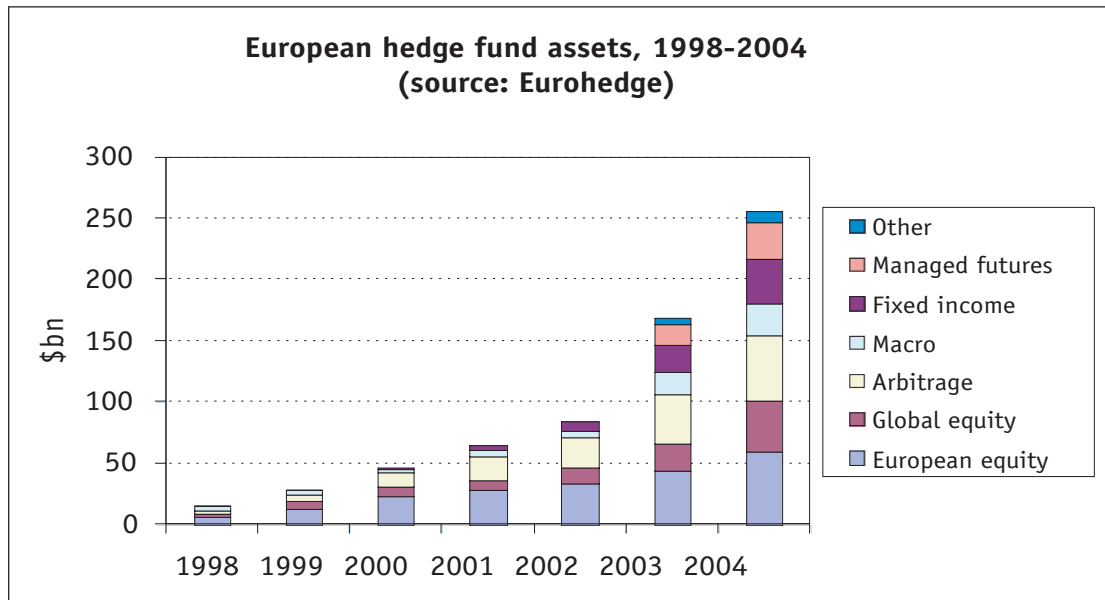
1 The TASS hedge fund database

2 Hedge Fund Research: www.hedgefundresearch.com

3 Hennessee Group LLC.

4 The Eurohedge database is made up of around 950 funds that are either invested solely in the developed European market or are managed from Europe.

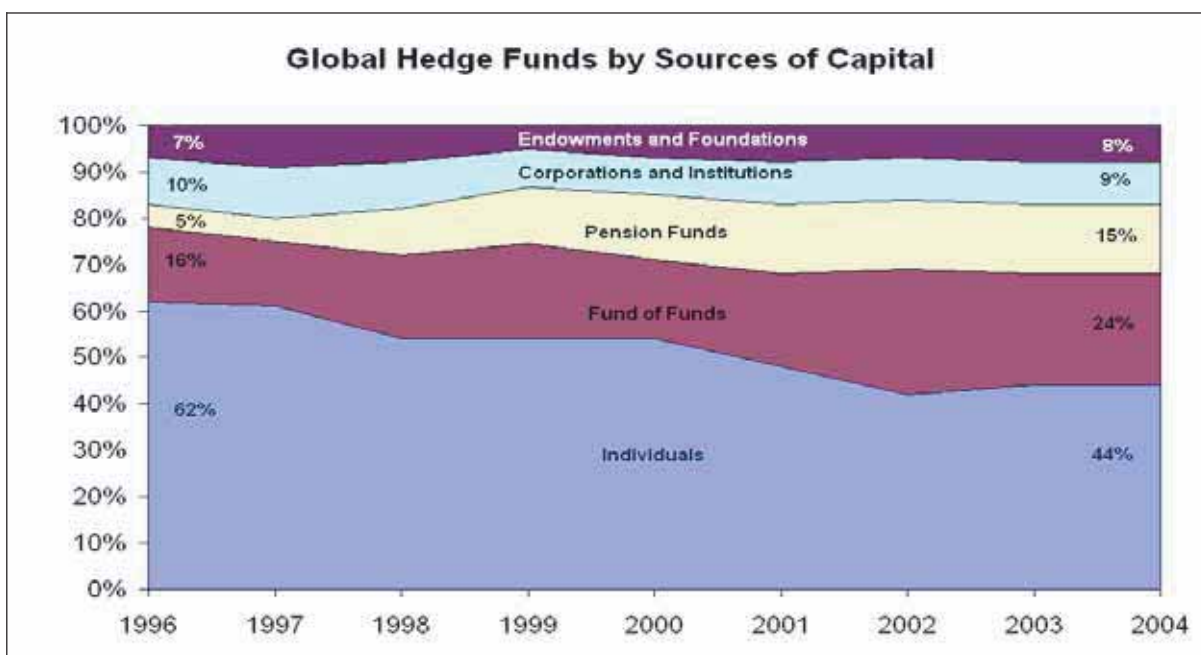
50 funds with assets of \$1bn or more operating in Europe, representing a 20% rise from the beginning of 2004. The graph below outlines the growth in popularity of certain strategies but also highlights the enormous growth of the European sector as a whole.



Strategies

- 2.7 Hedge funds apply dynamic investment strategies to achieve returns and can be long or short in securities. They can use leverage to achieve higher exposure, hence multiplying the effect of returns (or potentially losses) on their investors' capital. Depending on its stated strategy, a hedge fund can invest in a wide variety of asset classes and instruments, both on exchange and over the counter. Instruments have become increasingly complex, going beyond simple stocks, bonds, currencies and commodities to include synthetic and structured products such as contracts for difference (CFDs), credit default swaps (CDSs), collateralised debt obligations (CDOs), collateralised loan obligations (CLOs), asset backed securities (ABS) and payments in kind loans (PIKs). Hedge funds have also increasingly invested in private equity, leading to some overlap between the two sectors.
- 2.8 Some of the strategies used include macro, long/short, distressed debt, convertible arbitrage, multi-strategy, market neutral, event driven and managed futures. An important feature of hedge funds is that unlike the traditional managers, they seek absolute returns rather than relative performance to a peer group or benchmark, although with the creation of hedge fund indices, this too is changing.

Changes in the investor base



Sources of hedge fund capital 1996-2004 Source: Hennessee Group LLC.

- 2.9 The above chart shows a significant shift in the hedge fund investor base over the past few years. In relative terms the proportion of investment provided directly by individuals has declined (it has of course still risen sharply by value). At the same time pension funds and funds of hedge funds have become more important as sources of capital in recent years, particularly for the larger and more established hedge funds.
- 2.10 Indications are that UK institutions are increasing their exposure to hedge funds. A recent JP Morgan survey estimated that 12% of UK pension funds allocated 4.8% of their portfolios to hedge funds at end 2004, up from 2% of institutions in 2003. Recent examples of the trend include Railpen, the UK railway pension fund, which invested £600m of its assets in a hedge fund partnership, and Sainsbury's pension scheme, which trebled its exposure to hedge funds.

Limited investment by UK retail investors

- 2.11 Retail investment in hedge funds is at a very low level in the UK at present. Retail investors can be sold hedge fund products under advice or buy them over the internet. In addition, products listed on EU recognised exchanges and fund of hedge funds listed in the UK can be marketed where accompanied by a prospectus. However, where a hedge fund is structured as an unregulated collective investment scheme (CIS), as many of them are, they can only be marketed to very limited classes of investor.

- 2.12 There are signs that UK retail investors are becoming more interested in hedge fund investing. In the last 12 months, a number of structured products based on hedge funds (listed on EU exchanges) have been launched with lower minimum investment thresholds (around £5,000 or £10,000 rather than the more typical £50,000 to £100,000). There are indications that a growing number of fund managers intend to launch onshore authorised funds using investment techniques typically employed by hedge fund managers. For example, an authorised fund that aims for absolute returns is now possible using liberalisations under UCITS 3⁵ (implemented through changes made to our CIS sourcebook in October 2002, which were reproduced in our COLL sourcebook when it was introduced in April 2004). A major fund company recently launched a new ‘retail hedge fund’ which will seek to produce an absolute return using shorting techniques. The product will be available to investors willing either to contribute a £10,000 lump sum or £250 a month. The UK listed fund of funds market is also showing signs of life with a number of new launches recently. Our DP *A wider range of retail investment products: consumer protection in a rapidly changing world*, which is published at the same time as this DP, is exploring these and related issues further.

Importance of hedge funds for their prime brokers and trading counterparties

- 2.13 A significant development has been the growing impact of hedge funds on the revenues of investment banks. This has been emphasised in a report estimating that bank revenues from hedge funds were up to around \$25bn in 2004, or an eighth of their total revenues. Of this total, it is estimated that \$19bn was generated from trading and sales business with the remaining \$6bn coming from prime brokerage⁶.

Importance of hedge funds for market liquidity

- 2.14 Hedge funds are also becoming increasingly important providers of liquidity to financial markets. While it is estimated that hedge funds only account for around 5% of total assets under management worldwide, they are at present estimated to account for between a third and a half of daily activity on the New York Stock Exchange (NYSE) and the London Stock Exchange (LSE)⁷.

Heightened scrutiny by regulators

- 2.15 Regulators in many jurisdictions are devoting greater attention to hedge funds. For example, in October 2004 the U.S. Securities and Exchange Commission (SEC) decided to change its rules to make registration mandatory

⁵ Product Directive (2001/108/EC) of 21 January 2002.

⁶ CSFB 2005.

⁷ CSFB 2005.

for hedge fund managers with assets under management of over \$25m. This change will lead to some UK managers requiring SEC registration. The rule change is due to come into effect in February 2006. Regulators in Europe (e.g. in Germany and France) and Asia (e.g. in Hong Kong and Japan) are also looking at their regimes with respect to hedge funds.

Our limited regulation of the hedge fund industry

- 2.16 Our regulatory arrangements for hedge funds are constrained to those parts of the industry which are within our national jurisdiction (see Annex 1). We authorise credit providers to hedge funds. We do not authorise the funds themselves, nearly all of which are domiciled in offshore jurisdictions. We do not authorise and regulate most of the administrators, who again are typically located offshore (although some are owned by financial groups supervised here, so may be included within consolidated supervision). This contrasts with the traditional fund management industry where the funds (authorised collective investment schemes), the managers and the administrators are generally located in the UK and regulated by us. There is a risk that our regulatory activities in respect of hedge fund managers and some of their service providers could create a false set of expectations in stakeholders about the extent of our influence over the hedge fund industry. Although moral hazard is a potential risk of any regulatory regime, we think that the complex and dispersed nature of hedge fund business arrangements heightens that risk. We are also sensitive to concerns that significantly heightened levels of regulation in the UK could encourage an unhelpful degree of regulatory arbitrage, with managers seeking less demanding regulatory environments.
- 2.17 It is also worth noting that at present our supervision of hedge fund managers is not intensive, as nearly all of them attract a low impact/risk rating under our current assessment approach and so are not subject to relationship management. These impact assessment methodologies were developed before the recent growth of the hedge fund sector. We have recently increased market surveillance and thematic supervision of managers as the impact of hedge funds on financial markets has continued to increase. In this paper we consider whether we need to go further, given the wider range of risks that we are examining. However, authorising hedge fund managers and not other aspects of the industry does pose the risk that stakeholders could perceive a greater degree of oversight than we are able to provide.
- 2.18 There is no separate requirement to obtain permission to be a prime broker, firms are authorised as commercial or investment banks. However, securities execution, financing, and stock lending – all of which are conducted in the normal course of investment banking – are regulated activities.

- 2.19 Hedge fund managers typically require authorisation under the Financial Services and Markets Act (FSMA) because they carry on the activities that are specified by article 37 (Managing Investments) or article 53 (Advising on Investments) of the Regulated Activities Order. Hedge fund management does not constitute a separate regulated activity in its own right. Consequently, firms carrying on such activity are authorised by us as investment managers/advisers, rather than as hedge fund managers. We estimate that, among the authorised investment managers/advisors, around 200 firms are specialist hedge fund managers and there are an additional 100 traditional investment managers/advisors who have added hedge fund mandates to their existing fund management business.
- 2.20 As with any investment manager, part of the authorisation application process for a hedge fund manager (and when the firm is proposing to make a relevant change), involves us assessing and approving the fitness and propriety of the individual members of the governing body of the firm. We also currently approve individuals who will be carrying out the discretionary investment management function (CF27) under our Approved Persons Regime, but we will be consulting on a move away from this approach in our Handbook Review Consultation Paper later this month (June 2005).
- 2.21 The majority of the applications received are from companies who will manage from the UK. There is also a small number who will be UK-based fund managers, but work under a sub-management agreement with an offshore company, whereby the majority of investment decisions will be made in the UK, but some will be made abroad. We receive a smaller number of applications requesting advisory authorisation only. There is a subset here of firms where the offshore manager and UK adviser are owned by the same individual, and there is an argument that they are effectively managing from the UK. To be authorised the firm would be questioned on this, and a usual arrangement would be for an investment committee (consisting of other individuals) to be based offshore making the ultimate decisions.
- 2.22 Once authorised, a hedge fund manager is required to follow our rules on 'Senior Management Arrangement, Systems and Controls i.e. 'it must take reasonable care to establish and maintain such systems and controls as are appropriate to its business' (SYSC 3.1.1R). Any firm failing to meet this standard would be in breach of our rules. This requirement relates to the hedge fund manager's own business, not that of the hedge fund itself. It is perfectly feasible for a hedge fund to become insolvent through a failed trading strategy or investment decision and the systems and controls of the UK hedge fund adviser/manager to be beyond reproach.
- 2.23 Managers are also covered by our 'Dealing and Managing' Conduct of Business rules, which include such principles as best execution and timely trade allocation and cover personal account dealing.

- 2.24 The Code of Market Conduct/Market Abuse regime applies to behaviour in relation to qualifying investments which are traded on a prescribed market in, or accessible in, the UK, even if the perpetrator is not authorised and/or located overseas. Following the implementation of the Market Abuse Directive, it will also apply to behaviour in the UK in relation to EU regulated markets.
- 2.25 In the event of hedge fund insolvency, investors are likely to face difficulties in claiming under the Financial Services Compensation Scheme (FSCS), if claims, for example, relate to negligent investment management, fraud or a breach of contractual mandates. The manager has undertaken to provide fund management services to the offshore fund, and so claimants will have to establish that, as underlying investors, they were owed a duty of care by the manager. In cases where private customers have sought out hedge fund investments on their own behalf, there is also no basis for claims under the FSCS. However, a private customer introduced by an IFA or hedge fund manager could claim under the FSCS if they feel that they have been misadvised (e.g. opted up without appropriate risk warnings, been sold an unsuitable product, etc). Also, where a regulated firm fails as a result of its dealings with hedge fund counterparties, the institution may have clients that are entitled to apply to the FSCS for compensation.

3 Risks to financial stability and market confidence

- 3.1 This section considers the ways in which hedge funds could pose a threat to financial stability or market confidence. There are various definitions of financial stability and market confidence that might be applied. For the purposes of this paper we have chosen to define them as follows:

Risks to financial stability could arise in the situation where the failure or significant distress of a hedge fund, or cluster of hedge funds, produces a real risk of serious disruption to the financial system. The focus of our concern is not that funds, or even clusters of funds, may fail but rather about the significantly disruptive consequences those failures may have on the financial system through:

- i. their impact on counterparties (in particular prime brokers but also other counterparties); or
- ii. their impact on markets and market confidence.

Risks to market confidence involve impairment of the depth, liquidity or transparency of markets or damage to the efficiency of the price formation, trade execution and settlement processes (what we together sometimes refer to as ‘market quality’⁸). A reduction in market quality can have serious adverse implications for market participants and investors, and therefore could cause detriment to market confidence, without necessarily causing a financial stability event.

- 3.2 The distinction between these two threats can become blurred as many of the causes of the two risks are similar. For example, an event which damaged market confidence could, if significant enough, pose a threat to financial stability.

⁸ Market quality is defined as ‘the risk to the market confidence and consumer protection objectives arising from possible market malfunction’. The FSA paper, *Building the New Regulator*, February 2002.

Key potential risks identified (and discussed in more detail) in this chapter:

- **Serious market disruption and erosion of confidence;** The failure or significant distress of a large and highly exposed hedge fund – or, with greater probability, a cluster of medium sized hedge funds with significant and concentrated exposures – could cause serious market disruption. It could also erode confidence in the financial strength of other hedge funds or of firms which are counterparties to hedge funds (although in our view, at the time of publishing this paper, the probability of an event on a scale that could significantly affect UK financial stability is relatively low).
- **Liquidity disruption leading to disorderly markets;** The incidence of hedge funds collectively making concentrated investments in complex specialist financial instruments and particular market segments (usually on a leveraged basis) is increasing. Coupled with the increasing sensitivity of their investor base to performance, this can engender a significant liquidity mismatch leading to enforced asset disposals and consequently volatile and potentially disorderly markets.
- **Insufficient information to inform regulatory action;** Partly because of issues of extra territoriality, regulators have insufficient reliable and comparable data on which to base informed decisions about risk and consequently proportionate regulatory action to mitigate that risk.
- **Control issues;** Reflecting their trading (rather than management) background and their typical ownership structures, some hedge fund managers do not have the optimal skill set or incentives to create an effective control infrastructure.
- **Operational risk;** Reflecting the recent rapid growth of the sector and limited operational support arrangements, operational issues in hedge fund managers, such as late trade confirmations and non-notified trade assignments and novations, are adding significantly to market-wide operational and credit risk levels.
- **Risk management;** Clearly robust risk management is essential within the hedge fund sector. We have not observed any material weaknesses in the risk management techniques being employed, although there are particular challenges in risk managing multi-strategy portfolios and there are possible improvements that could be made with respect to stress testing. There is also potentially a developing issue for investment banks who face challenges in assessing total risk exposures arising from their combined trading, prime brokerage and investment relationships with hedge funds.
- **Valuation weaknesses;** Weaknesses in asset valuation methodologies and processes related to skill shortages and conflicts of interest are creating significant potential for ill-informed investment decisions and detriment to market confidence.

Risks to financial stability

Risks in individual funds or clusters of funds

- 3.3 The failure or significant distress of an individual fund, or a cluster of funds, could cause serious market disruption and erode confidence in the financial strength either of other hedge funds or of firms which are counterparties to the fund or funds.⁹ This was the situation following the near-collapse of Long Term Capital Management (LTCM) in 1998. LTCM had around \$1400bn in gross exposures and, at one stage, had a leverage ratio of over 50 to 1¹⁰. Our judgement is that the risk of an individual hedge fund posing a threat to the financial system on the scale of the LTCM episode, or even approaching it, has significantly diminished since 1998. This is primarily a consequence of enhanced risk management by hedge fund counterparties and the seeming absence of hedge funds with the level and nature of exposures taken on by LTCM.
- 3.4 Although there may not currently be any extremely highly exposed hedge funds, it is difficult for regulators to be absolutely certain of this given limited hedge fund disclosure either to regulators or to the market in general. Assessments are currently based on limited supervisory information from hedge fund managers, information from their counterparties, public databases which may not be exhaustive, and informal regulatory dialogue. Even if no extremely large hedge funds exist, the number of medium-sized funds is growing. TASS estimates that there are now over 50 European hedge funds with assets under management (AUM) of in excess of \$1bn, and some of these have assets of around \$10bn. Financial stability might be threatened if a group of medium-sized funds were simultaneously to encounter difficulties – either because they were following similar strategies or because of a contagious collapse in confidence. The potential threats to financial stability arising in single hedge funds or clusters of hedge funds raise the question of whether more comprehensive monitoring is desirable and possible.
- 3.5 Regulators watched with interest the recent, surprisingly significant (given the degree of anticipation of the event), impact of the credit rating downgrade of General Motors (GM) and Ford upon the hedge fund sector and related market participants. In this situation no financial stability event developed, however it was interesting to observe commonalities in losses by hedge funds pursuing similar strategies (together with losses in counterparties to these funds) and losses in individual funds or clusters of funds leading to investor redemptions and enforced liquidation of assets. The full effects of this event

9 It is also possible that as institutional investment in hedge funds grows problems in the hedge fund sector could cause difficulties for institutions such as pension funds.

10 Testimony of Richard R. Lindsey, Director SEC Division of Market Regulation before the House Committee on Banking and Financial Services, Concerning Hedge Fund Activities in the U.S. Financial Markets: www.sec.gov/news/testimony/testarchive/1998/tsty1498.htm

may not yet have been felt, with possible changes to structuring, trading, risk management, liquidity and investment remaining a possibility (with potential implications for the long term viability of individual funds/fund managers). Risk management arrangements appear, for the most part, to have been relatively successful in these circumstances, although some market counterparties found it difficult to assess the precise nature and extent of hedge fund losses. The increasing incidence of multiple prime brokerage relationships and multiple trading relationships mean that there may still be cases where credit providers do not have an accurate picture of the risk profile of the fund as a whole. Although each prime broker may have margin arrangements which look adequate for their own exposure, these could in the future prove insufficient if a large illiquid position has been split by the hedge fund between prime brokers but the prime brokers are unaware of this. Much can be learnt by regulators from this event about how well the market can cope with shocks, and therefore how limited the threat of a financial stability event may be in practice, although it remains unclear how well the market would cope with a truly unexpected event.

The risk of ‘long tail events’

- 3.6 Many hedge fund managers and investment bank proprietary trading desks employ sophisticated techniques to model and manage risk. However these models, such as Value at Risk (VaR) rely on distributions of outcomes and occasionally there are very low probability outcomes – so-called ‘long-tail’ events. Long-tail events occur periodically in relation, for example, to unforeseen events, market overshoots/the bursting of market bubbles or when expected correlations breakdown. They are more likely to cause a financial stability event than other market movements (either via their impact on one fund or a cluster of funds). An example of a long-tail event would be the Russian default crisis in the summer of 1998. Some commentators are concerned that the corporate and emerging market economy debt markets could move significantly. A related concern is that bond arbitrage risk models are more prone to flatter distributions (kurtosis) meaning that more of the distribution of outcomes is in the tail (fatter tails) i.e. that there is a greater likelihood of a long-tail event. Bond arbitrage strategies also generally involve more leverage, so the impact of any shock might be greater.
- 3.7 We believe that, in general, risk management standards have improved, both in respect of the larger hedge funds¹¹ managing their portfolios and of the banks which are monitoring their counterparty risks. There appears to be a greater recognition of the need to measure risks not accurately captured by

¹¹ Risk management standards among smaller hedge funds may in general have made less progress but such funds do not pose threats to financial stability.

conventional VaR models. These risks include liquidity risk, credit risk and, above all, the risk of long-tail events (extreme but plausible scenarios). Stress testing is increasingly, although not universally, used to try to capture these risks. Even where stress testing has been adopted, further development of the techniques would usually be desirable. One area of particular importance is the development of stress tests which take full account of recent changes in market structures and products (e.g. the evolution of the CDO market). Backward-looking stress tests, e.g. simulations of the 1998 crisis, are undoubtedly tough tests but they may not capture new risks, and possibly new risk correlations, which may have arisen as a result of market changes.

- 3.8 A newer contagion risk relates to the additional debt leverage of some funds of funds. The failure of one hedge fund may lead a fund of funds to breach its banking covenants, prompting it to withdraw capital from underlying funds, potentially causing them to fail. Enhanced liquidity sometimes granted by hedge funds to fund of funds investors may allow such a situation to develop rapidly. If these failures caused other leveraged fund of funds to breach their banking covenants then a domino effect could ensue, leading to a number of funds – and funds of funds – failing at around the same time.

Impact on markets and market confidence

- 3.9 Any significant hedge fund event, whether it involved one hedge fund or a cluster of hedge funds, could potentially lead to disorderly markets. These risks are primarily discussed in the following section focused on market quality as the effects will not normally be of sufficient magnitude to provoke a financial stability event. It is however worth noting here that the potential for a hedge fund event to have consequences of a sufficiently significant magnitude to provoke a financial stability event is relatively unknown. This is because the transmission effects of shocks (and the potential for a ripple/domino effect) have not been truly tested in recent history – and products, markets and market participants, have evolved substantially since the LTCM crisis.

Risk mitigation

- 3.10 Financial stability risks are likely to affect firms or markets in more than one jurisdiction. These kinds of risks may be best mitigated through regulatory action that is co-ordinated globally. These risks do however crystallise in a local dimension and regulators will therefore continue to consider them through local initiatives, sharing findings through global fora such as the Financial Stability Forum (FSF).

Global risk mitigation

- 3.11 The FSF established an ad hoc Working Group on Highly Leveraged Institutions¹² (HLIs) which recommended a co-ordinated package of responses in March 2000:

1. stronger counterparty risk management;
2. stronger risk management by hedge funds;
3. enhanced regulatory oversight of HLI credit providers;
4. building a firmer market infrastructure; and
5. enhanced public disclosure by HLIs.

Recommendations 1 to 4 have led to current or proposed initiatives at national level (from regulators and the industry) and are therefore primarily discussed later in this paper. It is however worth noting here one of the action points arising from the FSF meeting in Tokyo (11 March 2005), namely that *‘Supervisors and regulators were encouraged to carry out and share through the Joint Forum ‘horizontal reviews’ of key financial institutions’ readiness to deal with marked changes in the economic and financial environment. It was suggested that the reviews cover institutions’ exposures to rising interest rates and risk premia, as well as the nature and management of their exposures to hedge funds and private equity funds’*. Encouragingly, we have learnt through this dialogue that a number of national supervisors have taken steps to assess firms’ exposure to hedge funds, both direct and indirect, and we have found this information useful in developing our own regulatory approach. National regulators intend to continue sharing information on domestic initiatives to assess risks arising from the hedge fund sector in these fora, learning from each other’s experience and increasing coordination and regulatory best practice.

- 3.12 There have been less significant or clear cut developments in relation to recommendation 5, enhanced public disclosure by hedge funds (i.e. to all investors, market participants, commentators, analysts and regulators). The absence of comprehensive public hedge fund disclosure can make it difficult to assess the risks inherent in the hedge fund sector. We have supported efforts to improve public disclosures by hedge funds to strengthen market discipline and reduce systemic risk, such as the recommendations of the Multidisciplinary Working Group on Enhanced Disclosure in 2001, but progress on implementation has stalled. A key factor in this is the offshore location of most HLIs. As discussed later in this paper, there has however been significant progress on information flows between hedge funds and their investors and counterparties, although this disclosure remains far from complete. Continued enhancements to this disclosure, coupled with enhanced disclosure to

12 The prevailing term used to describe a hedge fund.

regulators, could prevent the need for further public disclosure. As discussed later, hedge fund managers are highly sensitive to the concept of increased market wide transparency.

- Q2: In addition to the FSF and Joint Forum initiatives, are there any global or European regulatory initiatives that could helpfully raise standards in the hedge fund sector?

Domestic risk mitigation

- 3.13 We have historically cultivated informal, non-supervisory relationships with a number of major hedge fund managers and prime brokers, with a view to increasing our understanding of the hedge fund industry and its inherent risks. This information has fed into FSA publications such as the Financial Risk Outlook, and thus has been used to inform the market participants and investors of the FSA's assessment of risk. This dialogue has also been used to inform FSA positions in international regulatory dialogue.

Our 'hedge funds as counterparties' survey

- 3.14 Consistent with the FSF's recommendations, we have recently supplemented this initiative by conducting a 'hedge funds as counterparties' survey. The objectives of the review were to:
- (i) enhance the FSA's understanding of the hedge fund/prime brokerage (and other financing activities) sectors;
 - (ii) gauge the risk appetite of both credit providers and hedge funds; and
 - (iii) identify any very large highly leveraged funds.
- 3.15 For the purposes of this paper, the qualitative findings on prime brokers/finance providers are restricted to those either relating to counterparty risk management or those that relate to the structural dynamics of the hedge fund sector. These qualitative findings have not been tested in detail. The data was compiled on a best efforts basis and is very difficult to aggregate, due to comparability problems in some cases (e.g. local versus global numbers) or for technical reasons in others (e.g. aggregation of VaR – not additive, different model assumptions). In addition the participants do not represent the entire universe of credit providers.

Qualitative observations

- 3.16 Greater competition and pressure to 'bring the firm' may be putting pressure on margin terms. Some newer entrants to the industry may be offering more flexible credit and applying less stringent risk management. Potential (latent) leverage has probably increased in recent years and better terms may be available for some counterparties outside the prime brokerage platform.

Standard margin schedules are in place and deviations are normally well thought out and documented. Standard terms are however becoming less frequent and more funds are securing margin lock ups.

- 3.17 There is anecdotal evidence that potential future exposure (PFE) techniques have continued to improve and stress testing is used more widely, mainly for monitoring purposes, but some firms also use this to determine haircuts. The first data collection exercise would however suggest that some firms found it challenging to aggregate prime brokerage and non-prime brokerage exposures. Following the first data collection exercise, we worked with the participants again (a limited group were involved in the original design of the template) to improve the data template and to better align it to their own risk reporting.
- 3.18 As part of the initial credit assessment, some firms do not conduct on-site visits for all hedge fund counterparties before taking them on, placing too much reliance on the track record of individual managers. As part of the ongoing assessment there is a heavy reliance on investor newsletters for valuation/VaR data. It is very difficult to look across all of the prime broker type relationships for one firm, representing perhaps the most significant risk to data integrity and value.

Observations derived from the data

- 3.19 Currently, leverage at the aggregate level is not very high in historical terms. There is significant variation in the degree of leverage employed according to the strategy of the fund, with less variation within each strategy space. When split out by firm, the level of leverage roughly accords to the product area in which the firm specialises, e.g. a firm specialising in fixed income prime brokerage will report more highly leveraged positions than a firm specialising in equity prime brokerage. We found no evidence of a highly leveraged fund on the scale of LTCM. Of 100 counterparty names we reviewed in the first exercise, only 19 appeared more than once, indicating that the business is not overly concentrated. This does not mean that we did not identify some material funds: the top three accounted for a little under 10% of the Gross Market Value of all positions reported. Another caveat to this data is that we only received the top ten counterparties for each firm, so theoretically a fund could occupy all of the number 11 spots and still be very material without our exercise capturing it.
- 3.20 The first data collection exercise allowed us to gauge risk appetite in terms of absolute leverage and leverage relative to strategy. The results of the second survey are still being analysed.

Costs, benefits and the future

- 3.21 All interviews and follow-up discussions have a minimal associated cost. The first data collection exercise did however prove to be very challenging and time consuming for nearly all of the participants and, as a result, we worked with the participants to formulate a template that would significantly reduce the burden by better aligning it to the group's own risk management practices, while still trying to ensure that it fulfilled our requirements. The exercise in its current form should not now impose significant costs and is recognised as valuable to the participants as well.
- 3.22 The exercise has emphasised the need for, and encouraged, stronger counterparty risk management. It has enabled us to establish the current strengths and weaknesses of counterparty risk management and to pursue these on an individual basis, as well as setting an informed benchmark for good practice. It has probably also stimulated senior management's interest in this issue. It has greatly enhanced our understanding of a sector that is otherwise very opaque – providing an impressionistic distribution of risk and leverage by firm, strategy and counterparty as well as the shape of the market.
- 3.23 This survey cannot comprehensively address the systemic concerns in the absence of global data and with less than 100% of the market participants involved. However, despite the problems associated with aggregation, it should act as a very good indicator for rising risk profiles and to help monitor management focus on these key risk issues. We intend to repeat the data collection exercise on a six-monthly basis, in the context of which the information will only become more informed and more valuable, albeit on the basis of a series of 'snapshots'.

Potential additional domestic risk mitigation

- 3.24 We recently published a DP outlining the work we have done to date and our current thinking on stress testing (DP05/02, May 2005). Stress testing typically refers to shifting the values of individual parameters that affect the financial position of a firm and determining the effect on the firm's business. Scenario analysis typically refers to a wider range of parameters being varied at the same time. Scenario analyses often examine the impact of catastrophic events on a firm's financial position – for example, simultaneous movements in a number of risk categories affecting all of a firm's business operations such as volumes, investment values and interest rate movements.
- 3.25 Consideration could be given within this framework to the importance of hedge fund counterparties performing stress tests in relation to their exposures to events in hedge funds (including funds of funds) and the use of such information in counterparty credit risk management. Counterparties may have exposures to hedge funds via investments, prime brokerage, trading,

structured products etc. The complexity, significance and correlation of these relationships means that stress testing could add real value in accurately identifying risk.

- 3.26 The DP also suggests that fund management firms running complex series of market risks, such as hedge funds, should give consideration to the benefits of stress testing in managing their risk portfolios. We intend to follow up DP05/02 with a Conference in the third quarter of 2005, primarily for the larger and more complex firms. We may consider involving the most significant hedge fund managers in this event, seeking to promote and share best practice on stress testing across the full spectrum of major market participants.

Q3: Recognising the importance of stress testing as a risk management tool, do you believe that it is sufficiently embedded within the hedge fund sector and should the FSA take any steps to further encourage such practice?

Risks to market confidence

- 3.27 The April 2000 report by the FSF's working group on HLIs analysed, among other things, the market impact of hedge funds. The report noted that hedge funds have the potential to materially influence market dynamics, amplify market pressures and compromise market integrity. The following section describes the findings of a follow-up review of the market impact of hedge funds (and therefore hedge fund managers) we conducted in the Spring of 2005.
- 3.28 The review confirmed the industry view that hedge funds are playing an increasingly important role in financial markets (more so than at the time the FSF's report was drafted). They can be dynamic, innovative and at the vanguard of market developments. They can significantly enhance market liquidity and market efficiency.¹³ As such, they may be seen to make a positive contribution to international capital markets. The core objective of hedge funds, in common with all investment vehicles, is however to generate returns which, by necessity, involves investment in assets that carry risk – which may lead to losses. Hedge funds also employ financial techniques such as leverage that may augment risk. Through their innovative practices they may test the boundaries of acceptable market practice and alter market dynamics. It is therefore possible that, in certain circumstances, hedge funds may have a detrimental impact upon the orderly functioning of markets. The overall market impact, both positive and negative, of hedge funds is not easy to quantify, however a number of factors may be observed:

13 At least one regulator, the U.S. Commodity Futures Trading Commission (CFTC), has observed that hedge fund activity can dampen rather than increase market volatility.

Market Risk

3.29 There is an enormous variation in the market impact of hedge fund managers depending upon a number of factors such as the amount of assets they manage and the strategy (or strategies) that they follow (and therefore the markets/products in which they are active). Hedge fund managers vary from small operations with few staff and vanilla strategies (where control issues are key) to firms that have the feel of a small investment bank (with risks akin to those found in investment banks). Some firms in the visit programme were too small relative to the size and depth of the markets in which they were active to have a significant impact in terms of liquidity provision, price formation or market volatility. Rather than creating a disorderly market, the enforced winding up of such funds would simply create investment opportunities for others. Other hedge fund managers were however major market participants in terms of volume of trading/liquidity provision/size of positions. One observation is that a hedge fund with \$1bn of assets under management may have a far greater market impact than a traditional asset manager with \$1bn under management. This is because hedge funds may be characterised by:

- high transaction volume/fund turnover;
- concentrations in less liquid markets;
- concentrations in innovative/complex products;
- concentrations in high profile corporate events/market movements; and
- use of risk augmenting financial techniques such as leverage.

The market impact of such funds is arguably as significant as that of investment bank proprietary trading desks, however it should be noted that hedge fund managers are growing rapidly and are subject to far less regulatory scrutiny than would normally be the case for investment banks.

3.30 Although there are no indications that any funds managed by UK-authorized fund managers have yet become too large for the market to cope with their collapse, some of these hedge funds may have reached the scale where a disorderly wind-down could cause market volatility and disruption to liquidity. Hedge funds also influence the market collectively. Industry sources suggest they represent over 50% of trading volumes in many asset classes (and more in some). Where they are following similar strategies and/or using similar risk management models, there is a risk that they will enter or exit a market collectively and in doing so disturb liquidity/the normal fundamentally driven operation of supply and demand. Hedge funds' participation in the market can vary between strategies, with some strategies causing them to be on both sides of the market, contributing to both demand and supply side flow. Other strategies, such as structured credit, tend to involve more of a one way flow. They may also, particularly in the context of momentum trading, increase

volatility/extend trends with the consequence that any corrections will be larger. This ‘hedge fund risk’ is substantial enough for some fund managers to be hedging it where possible. It would appear to be most significant at the moment in event-driven strategies, particularly where the underlying asset is unlikely to be utilised in a wide variety of other hedge fund strategies.

- 3.31 The market environment of compressed spreads and reduced volatility has been tough for hedge funds during the last 18 months, particularly for those in convertible arbitrage strategies. This problem may have been exacerbated by the massive inflows of new money to the sector which appear to have competed away many arbitrage opportunities. Hedge fund managers, like many other active asset managers/investors, have therefore been engaged in a search for yield. They do not appear to have pursued this through an increase in leverage or concentration; rather, yield appears to have been sought in new products/market places. Structured credit – particularly funds investing in collateralised debt obligations (CDOs), collateralised loan obligations (CLOs) and asset backed securities (ABS)¹⁴ – seems to be the current principle focus for strategy development, along with other credit strategies¹⁵. In these strategy spaces, product innovation is a significant generator of investment opportunities and increased market efficiency. Asia appears to be the growth area for investment from a geographic perspective. It is worth noting that many new instruments embody a degree of leverage (and potential for high volatility) within themselves, and that new areas of geographic focus typically have less liquid markets.
- 3.32 While regulators might be concerned by significant, non-transparent, changes of strategy by hedge fund managers and their impact upon regulatory awareness of market developments, concentrations etc, hedge fund managers are keen to highlight that they are meant to be nimble, innovative and flexible enough to identify and seize new investment opportunities as they arise. Hedge fund managers only tend to have qualms about other hedge fund managers moving into new strategies where it is not apparent that the managers have the technical skills to support such a move. This was felt to be a greater risk in smaller, less well-resourced firms. Those hedge funds that have remained in the more traditional asset classes may face more crowding in the reduced investment opportunities that remain. Smaller hedge fund managers appear to communicate frequently with each other and sometimes share trade ideas. This may exacerbate the concentration of investment ideas or ‘herd behaviour’ problem. The movement of funds into new strategies involving the use of instruments that may be unfamiliar should be recognised as a risk-increasing trend of which investors may be ignorant.

14 These vehicles may themselves be highly leveraged; however, given their usually fixed financing they are unlikely to become forced sellers in a liquidity/market crisis.

15 In May 2005, these strategies gave rise to losses in a number of hedge funds, given the credit rating downgrades of GM and Ford and breakdowns in expected correlations.

- 3.33 The diversification of hedge fund managers' strategies, and the related growth of multi strategy firms, is readily observable. The relative success of such firms may tempt many other hedge fund managers to broaden their portfolios. This could have the consequence of stabilising returns and investment risk (given additional diversification benefits between strategies). It could also facilitate the rapid reallocation of investments between strategies/markets as opportunities arise and decline. This added complexity and re-allocation related investment volatility could substantially change the risk profile of hedge fund managers. Managers that we had considered to have a lower risk profile could, in a short period of time, present a much greater risk to our statutory objectives.

Liquidity risk (market liquidity)

- 3.34 Generally, hedge fund managers appear comfortable with current liquidity levels in the markets and do not find it unduly difficult to execute trades without having a significant market impact. Many hedge fund managers are carefully monitoring slippage (the difference between the prevailing price at the time of a decision to trade and the realised trade price). This liquidity may however turn out to be an illusion, disappearing in a falling market, if it is concentrated among hedge fund managers with similar strategies/risk management models who might choose to exit the positions/market at the same time. It is also apparent that as hedge funds search for yield they are moving into more complex assets where liquidity may not be as great as that found in more traditional markets. Some markets were felt to already demonstrate a degree of illiquidity on an ongoing basis, such as parts of the CDS market.

Liquidity risk (leverage effect on liquidity)

- 3.35 Clearly any liquidity crisis could be exacerbated by something that forced hedge funds to withdraw from the market/sell off more assets. Any hedge fund that is leveraged faces the risk of an increase in financing costs/margin payments or the cutting of credit lines. Typical leverage varies significantly according to the strategy of the fund. We observed relatively low levels of leverage in all the firms we visited, other than in relation to the various structured products/strategies. This leverage may however increase rapidly as the markets start to pick up/volatility starts increasing.
- 3.36 It should be noted that there are a wide variety of interpretations of the term leverage and consequently that a wide variety of methodologies are used for its measurement. These definitions and methodologies fall into two broad categories: economic (debt) leverage and financial (instrument) leverage. Economic leverage is quite simply leverage generated by increasing assets under management, and therefore investment capacity, through borrowings. Financial leverage is generated by making investments on margin i.e. where

the cost of an investment is less than the exposure it generates. Even within these categories, there are many different sub definitions and methodologies for measurement. The risk inherent in economic leverage may be multiplied according to the nature of the exposure bought. For example, \$100m of economic leverage does not generate the same degree of risk if it used to purchase a three-year UK government bond as when it is used to purchase a 30-year emerging market bond. Equally, such leverage can be multiplied by investing on margin/in other leveraged instruments such as a CDO tranche or an investment in another hedge fund.

- 3.37 The potential to capitalise on leverage i.e. the potential to use leverage to take on increasingly large exposures may be growing as prime brokers introduce cross margining. There may be a risk inherent in such activity that is not being recognised if this cross margining is based on negative correlations between positions/strategies that might erode in a crisis scenario. The source of a hedge fund's leverage could also affect its risk profile. Over reliance on a single prime broker could leave the fund particularly exposed to the risk of leverage being withdrawn or its cost rising. This risk would be particularly acute where the source of leverage had similar market exposures to that of the hedge fund and so might be obliged by its own funding/capital requirements to withdraw liquidity/increase its cost at the very time the fund needed it most. Multiple prime brokerage and counterparty relationships are however increasingly becoming the norm among larger hedge fund managers. This may reduce concentration risks but it also undermines the possibility to comprehensively monitor risks across an entire fund except when there is information sharing or the regulator acts as an information clearing house.

Liquidity risk (investor related liquidity)

- 3.38 Although hedge fund managers are running market risk based upon economic and financial leverage, their potential market impact is also strongly linked to the liquidity mismatch between their investments and their investors. Substantial redemptions may make them become forced sellers. We have not found observable increases or decreases in the liquidity profiles set out in UK-managed fund prospectuses (either in terms of lock-ups, frequency of liquidity, redemption penalties or gates). These are generally a reflection of the expected liquidity of the funds' investments.
- 3.39 The existence however of an increasing number¹⁶ of managed accounts and side letters granting enhanced investor liquidity may be increasing liquidity risk. This is because money could be withdrawn more rapidly, forcing liquidation of assets. Weaknesses in the disclosure of such documents could potentially create legal and regulatory issues for hedge fund managers. These

16 This view is based on an extrapolation from a limited sampling exercise and may therefore be subject to sample bias.

documents might be to the detriment of smaller/less powerful investors who do not benefit from such enhanced liquidity options. They may find that, by the time their shares are redeemed, prices have moved against them as other investors have been able to liquidate their positions more quickly. When considering this risk, clearly it is important to bear in mind that it is generally professional investors who would be exposed to it and that adequate due diligence could assist in identifying and therefore managing this risk. Certainly an informed reading of the prospectus and fund articles should be a guide to investors on the potential for such structures to exist.

- 3.40 These liquidity risks may be growing as hedge funds become increasingly reliant upon institutional investors. Hedge fund managers would clearly prefer to avoid the extra bureaucracy and cost associated with managed accounts and side letters however, where they are essential to secure large scale investments, they may be increasingly accepted. The gradual emergence in continental Europe of retail access platforms with similar liquidity demands merely enlarges the problem. They too provide hedge funds with investments but on the understanding that this will be accompanied with the greater liquidity one generally would expect to be offered to retail customers.
- 3.41 Another concern that may be generated by the emergence of retail platforms is the quality of benchmarks that they create. Some market participants suggested that hedge fund managers might only approach such a platform for liquidity if they were failing to generate sufficient interest from institutional investors and therefore that there might be a negative selection bias for these platforms and the indexes that are generated according to the performance of the funds accessible through them. This concern might be exacerbated by the fact that successful funds choosing to exit the platform and return the investments they gathered from them are forced to leave the related indices.
- 3.42 Investor related liquidity concerns might be exacerbated by an excessive concentration in the source of investors (e.g. they were all funds of funds, or they were all retail). This risk might be compounded where the investors are also counterparties and therefore might face a correlation between their exposure to the fund via both investment and trading/prime brokerage activities. Some funds we saw had a single investor at the outset.
- 3.43 In addition, as structured products become an increasingly popular way of gaining exposure to hedge funds, whether the underlying is a fund of hedge funds or a single name fund, the structured product providers are becoming an increasingly significant investor group. It is possible that providers may automatically seek to redeem a portion, or all, of their investment in the underlying fund if its performance is negative. They may do this in order to accurately hedge an option or comply with an asset allocation algorithm of a Constant Proportion Portfolio Insurance (CPPI) type product. This potential instability of the capital base and likely withdrawal of liquidity when it is

most needed may exacerbate the effects of poor performance and require more forced selling.

- 3.44 Overall liquidity risk in hedge funds would appear to be medium and growing, with a potential mis-match developing between the increasingly illiquid investments made by the funds and the increasing liquidity offered to hedge fund investors. Tracking liquidity provision by prime brokers/counterparties captures just one part of a larger liquidity picture.

Opacity

- 3.45 Due diligence by investors is reportedly increasing in quality, led by some particularly well run funds of funds. Nevertheless, it may be difficult for some investors to truly understand the increasingly complex strategies various hedge funds are pursuing, or track style drift. Hedge fund prospectuses are deliberately drafted in a very broad manner so that they do not restrict the manager's flexibility to seize new investment opportunities. This however has the implication that investors can only truly understand the investment strategy by talking to the managers and intelligently interpreting the regular investor newsletters. This may prove tough for less experienced investors and may explain the relatively low levels of direct investment in hedge funds by pension funds (who prefer instead to rely on fund of funds vehicles). The vast majority of the hedge fund managers we visited had significant concerns about the concept of taking on retail investors. Typically it is fund of funds managers, and hedge fund managers within larger groups which also offer traditional investment products, that tend to be more open to the idea.
- 3.46 The transparency in the hedge fund environment is however greater than many might believe. Many hedge fund managers appear to be producing relatively detailed newsletters for their investors which contain enough information for the firms' strategies (and sometimes even positions) to be inferred (these newsletters are sometimes also sent to key counterparties such as prime brokers). Where managed accounts/side letters exist, some investors may have perfect transparency. General transparency levels are far greater than that observed in relation to investment bank proprietary trading desks. The hedge fund managers were however sensitive to increased market transparency if it revealed their strategies and positions to competitors. Nevertheless, the majority of the fund managers visited favoured the Takeover Panel's proposal to increase transparency on positions in contracts for difference (and other such products). While the transparency described above is not fully comprehensive, it would appear to represent an improvement and give investors (and potentially prime brokers) the opportunity to have a strongly moderating influence on hedge fund behaviour (if they choose to). It does not however currently increase transparency to regulators and will not therefore

facilitate market supervision unless a regime is created that allows us to gather information in a systematic fashion and then subject it to ongoing analysis.

Counterparty risk

- 3.47 The market impact review touched only lightly on counterparty risk management given the work that has already been conducted on ‘hedge funds as counterparties’. Hedge fund managers did however confirm the view that counterparty exposure, and therefore contagion risk, is complex, based as it is upon investments, trading relationships, stock lending and borrowing etc. No evidence was gathered that suggested the majority of banks are significantly loosening credit standards in order to expand their business relationships with hedge funds although there are concerns that some late entrants to the hedge fund counterparty market, and in particular firms trying to enter the lucrative prime brokerage business, may be granting unusually flexible credit terms with a view to winning new mandates. Furthermore there is a suggestion that such firms may be operating inadequate risk management platforms as they have yet to develop the full infrastructure utilised by their more experienced peers.
- 3.48 Hedge fund managers were concerned about the extent of re-hypothecation¹⁷ of hedge fund assets by prime brokers however they felt that there was little they could do to address this. Re-hypothecation is a key generator of prime brokerage revenue and is often linked to the terms on which other prime brokerage services are offered to the hedge funds. Only one hedge fund investment manager in our sample (whose staff had considerable prime brokerage experience) had managed to negotiate limits on re-hypothecation.

Control issues

- 3.49 Hedge fund managers face increasingly high start-up costs in an increasingly competitive environment and may find it hard to generate sufficient returns to remain in business. This could engender a low survival rate for new entrants and potentially investor losses. This is particularly likely to affect smaller, less well-resourced start-ups. Another possible consequence is an increase in industry consolidation among hedge funds, a prospect for which there is some positive evidence even now. However, as long as hedge funds remain professional/institutional investor focused, survivorship issues should not be a primary focus of regulatory attention.
- 3.50 A further control environment concern related to hedge fund start-ups is the trend for former star traders at investment banks to set up such firms, even where they may not have a track record of running a company, man management etc. It is also the case that such firms tend to be launched with a

17 Hypothecation is the posting of collateral to secure an obligation. Rehypothecation is the reuse of posted collateral. For example, if an institution receives collateral from a counterparty to secure an obligation, that institution may rehypothecate the collateral by lending it, repoing it, or posting it as collateral for one of its own obligations to a third party.

very small and concentrated staff base, which raises questions in relation to independent oversight, the ‘four eyes’ requirement, conflict of interest management etc. Such firms frequently do not have independent non-executive directors (although a strong and independent fund board could provide a challenge mechanism). It is also likely that the standard performance/reward model of hedge fund managers may discourage investment in core management support systems and the control environment. Furthermore, as these firms are frequently small start-ups they sometimes only have minimal staff training, relying on the background of their staff in other regulated entities – thereby creating a cultural and educational risk.

Operational issues

- 3.51 As successful hedge fund managers have a tendency to grow extremely rapidly (increased numbers of funds, strategies, AUM, investor base, jurisdictional spread etc), growth beyond their control capacity is an extremely real risk. This risk is particularly acute in relation to middle and back office functions which may be made a lower priority for expenditure relative to profit centre sections of the business. Considerable trade confirmation backlogs have developed in the credit derivative markets recently. Anecdotal evidence suggests that some hedge fund managers may be contributing to these delays, in particular where they assign or novate trades to a third party without first requesting the permission of (or even informing) their original counterparty. Slow uptake of industry solutions in the field of automated confirmations and settlement may exacerbate the backlog problem. In a Dear CEO letter¹⁸, we encouraged non-hedge fund credit derivative market participants to clear-up trade confirmation backlogs and improve systems and controls to prevent the development of future backlogs. Such issues have been included in the risk mitigation programmes of major credit derivative market participants. Trade associations are working with their members to facilitate the development of higher standards in this area. Hedge fund managers are slowly starting to join trade association initiatives and/or participate in market solutions that may raise standards. There is no obvious reason why regulatory intervention in relation to operational issues in markets should not be extended to all major market participants, irrespective of their category of authorisation.
- 3.52 There appears to be no common understanding among hedge fund managers on whether trading errors should be borne by the fund manager or the fund. We think that the hedge fund manager, as a matter of law, must bear the costs of any errors for which it is responsible, in dealing with fund assets. To not do so would not only cause reputational damage but could also have regulatory or legal consequences.

18 www.fsa.gov.uk/pubs/ceo/derivatives_22feb05.pdf

Risk management

- 3.53 The risk management methodologies of the hedge fund managers we visited as part of the recent market impact review were extremely varied in nature, and in terms of methodologies and metrics used. We did not observe an excessive concentration of hedge fund managers using similar risk management models that might drive them to hold similar investment positions or exit a strategy at a similar time, however it should be noted that the deliberate inclusion in the visit programme of fund managers active in a diverse range of strategies may have caused this risk to be under represented. No fund operated under tight prospectus-based limits so their methodologies were principally internally generated. To varying degrees investors would be expected to have some understanding, and place some reliance, on these internal processes.
- 3.54 The risk management undertaken by hedge fund managers generally appeared fit for purpose, although the framework governing this was frequently less robust/documented than one might typically observe in an investment bank. The risk management was highly tailored to the strategy (or strategies) the fund manager was pursuing for each individual fund. There appear to be few risk metrics that are effective across the entire strategy space. This is an interesting observation for regulators that are considering how best to monitor risks across the entire hedge fund sector. Generally speaking, our impression was that investors are focused on just two high-level metrics, irrespective of strategy:
- a fund's experienced loss-levels for month, year-to-date and drawdown from the previous high-watermark; and
 - performance against an annualised volatility target.
- 3.55 Portfolio risk management in multi-strategy funds is a particular challenge as the intrinsic risks vary between the strategies. Multi-strategy fund managers tend to have complex databases of positions and risk data as no one metric works for all their risks. Some reliance was placed on broad-brush assumptions of off-sets between different types of strategy; however managers were essentially faced with the challenge of considering overall risk according to a number of non-comparable metrics.
- 3.56 The asymmetrical payoff for a hedge fund manager could, at least in theory, cause them to take unreasonable risks with investor's money. In practice, the principal moderating influence on such behaviour is a desire to remain in business (and maintain a good standing in the industry) and so limit the use of unduly risky strategies. This constraint has been seen to erode rapidly, however, in circumstances of market difficulty where the opportunity of improving poor fund performance is possible only by taking on very high risks. The ability of the fund's investors to withdraw their funds in the event of poor performance is a further mitigating factor, although this will work less

well for strategies where the fund may appear profitable right up to the moment where an event initiates a collapse (e.g. where written derivatives reach their trigger point).

- 3.57 One area of risk management that could be improved in some investment banks is the ability to assess total risk exposures where the firm has a combination of trading, prime brokerage and investment relationships with hedge funds. It is true that aggregation of these rather different exposures presents numerous practical problems, but it is important that firms develop systems to capture and assess information covering all aspects of their relationships with hedge funds, both by individual counterparty and for the sector as a whole.

Global risk mitigation

- 3.58 Around the globe, and in the context of the FSF and Joint Forum dialogues, national regulators have started considering how best to mitigate these risks. A number of regulatory bodies, such as the Hong Kong Monetary Authority, have undertaken similar thematic reviews to the one we conducted. Others have used surveys, held informal discussions or conducted reviews of public databases. Regulators are sharing high-level feedback from these reviews in the international regulatory fora. Such regulatory scrutiny may help mitigate these risks by encouraging industry-wide and firm-specific initiatives to promote best practice.

Domestic risk mitigation

- 3.59 Hedge fund managers, like all FSA-authorised firms, are subject to our risk-based operating framework¹⁹, under which we apply resources according to an assessment of the risks a firm poses to our statutory objectives. Under our current approach, firms are placed into one of four risk categories (A, B, C or D) with A being the highest and D the lowest. Firms that are assessed as low impact are categorised as D firms and are not subject to an individual risk (probability) assessment or risk-mitigation programme. All other firms are categorised as A, B or C based on a combination of their impact and probability assessment. These categories are used to help us determine the resources we apply to firms. We do, however, retain the possibility to override the outcome of an impact assessment.
- 3.60 The majority of hedge fund managers that we authorise are currently categorised as D firms because the impact metrics applied to them are (for historical reasons) either:

19 www.fsa.gov.uk/pages/Doing/Regulated/RMRA/index.shtml

- weighted towards traditional fund management businesses, for example they do not take into account the effect of high transaction volumes and leverage; or
- they capture some trading activity but do not consider all asset classes or the amount of assets under management.

As such, like all other D firms, they are monitored by a combination of baseline monitoring (the receipt and monitoring of returns and notifications), action in response to risks identified by this information, and work as part of thematic reviews across firms.

- 3.61 The operation of our risk based operating framework is currently being reviewed in the ARROW project. As part of this, the current approach to impact assessment is being reviewed recognising that the current impact metrics are largely based on pre-N2²⁰ firm definitions and that they may not adequately reflect the impact of risks across the range of our statutory objectives. While this work is at an early stage, it is aiming to revise our approach so that the impact of risks that arise both from individual firms and across firms more fully takes into account their economic effect on consumers and markets. We will retain the possibility to override an impact assessment where necessary.

Potential additional domestic risk mitigation

- 3.62 Although most hedge fund managers actively try to minimise the market impact of the funds they manage, hedge funds do have the potential, either in isolation or as part of a cluster/herd, to have a significant impact upon markets, particularly in a crisis scenario but also in the normal course of business. In certain circumstances this could affect financial stability i.e. the market disruption could be great enough to trigger a financial stability event. The probability of such an event occurring currently appears to be low, although the ability to predict such an event is significantly constrained. Leaving aside this more significant (but more extreme) risk, it would appear that the actual and potential impact of hedge funds on ordinary market dynamics is sufficient in its own right to merit enhanced regulatory attention. Nevertheless, when considering the positive contribution hedge funds can have on markets, the enormous variation in the impact of individual funds, and finite regulatory resources, it is clear that any regulatory response should be well thought out, accurately targeted and proportionate.

20 N2 – 1 December 2001, the date when we were given our statutory powers

Distinguishing hedge fund managers from other discretionary managers/ advisors

- 3.63 Our current assessment is that hedge fund managers have a different risk profile to other discretionary investment managers and advisers for the reasons set out earlier in this paper. Therefore, it could be beneficial to clearly distinguish hedge fund managers for the purposes of regulatory oversight. No such distinction currently exists in the UK regulatory regime. In making any distinction, we are currently inclined to focus on the investment techniques of such firms (such as those set out in chapter 1) rather than issues of legal structure. This view is based on our desire to focus on material risks arising within our jurisdiction and to minimise the potential for regulatory arbitrage. This means that hedge fund managers employing the relevant investment techniques could be subject to this approach irrespective of:
- whether they were operating within a legal structure that was entirely located within the UK; or
 - within a structure that involved the provision of investment management/advice in the UK but with some related entities/activities located offshore.
- 3.64 We have so far identified two possible practical mechanisms for implementing any decision to distinguish hedge fund managers from other discretionary investment managers and advisers. These options are described below with a view to stimulating debate among stakeholders on whether either of them merit further cost benefit analysis (or whether indeed an alternative approach would be optimal). It should however be noted, for the purposes of clarity, that to be effective each of these options would need to be applied to all relevant market participants, including hedge fund managers already authorised as investment managers/advisors by us. Such an initiative would not be confined just to hedge fund managers seeking authorisation after any such proposal had been implemented. The possible options for consideration include:
- We could seek the creation of a new and distinct hedge fund management²¹ ‘regulated activity’ under FSMA, obliging firms to seek a separate ‘permission’ before being able to carry on the regulated activity of hedge fund management. This approach would require us to seek an amendment to the Regulated Activities Order under FSMA. While having significant benefits in relation to legal clarity and ease of enforceability, such a legal change would obviously require a significant amount of time and resource (both from the public and private sector) to draft, improve, agree and implement legislative amendments.

21 This could include both investment advice in relation to hedge funds and investment management in relation to hedge funds but it would not be necessary to undertake both of these activities to meet the definition.

- We could make ‘undertaking hedge fund management’ a notifiable event i.e. we could define ‘hedge fund management’ within the glossary of the FSA Handbook and then create a new rule requiring all firms undertaking hedge fund activity to notify us. This would simply be a notification i.e. a firm already authorised to carry out investment management/advice would be able to undertake hedge fund management as soon as the notification had been made.
- 3.65 For any definition to be meaningful, it would have to be constructed in such a way that clearly captured typical hedge fund investment techniques such as short selling, the use of derivatives for investment purposes and the use of economic and instrument leverage. Although, as discussed in chapter 2, hedge funds are also typically characterised by complex legal structures involving offshore elements, given that the FSA’s regulatory remit is, subject to a few exceptions, confined to persons and activities in the UK, it would seem logical not to use this characteristic in any definition. The implication of such an approach is that some purely UK based firms could be captured by the definition.
- 3.66 Although no detailed cost benefit analysis of these options has yet been conducted, it would seem that the costs associated with making ‘undertaking hedge fund management’ a notifiable event would be lower than the costs associated with creating a new regulated activity of hedge fund management, but that both options would deliver similar benefits.
- 3.67 If such a distinction were to be made for hedge fund managers, consideration could also be given to whether a similar distinction might be optimal in relation to prime brokers. This might facilitate our supervisory efforts in relation to firms that play an extremely critical role in the hedge fund sector and who have the potential to significantly enhance or moderate risks. This might add value – in particular in relation to those second tier prime brokers/recent entrants to this market highlighted earlier as creating greater credit and operational risk exposures. It should however be noted that we already have some understanding of which firms we authorise act as prime brokers given our close and continuous supervision some of these firms.

Enhanced supervisory oversight

- 3.68 The FSF recommended ‘enhanced national surveillance of financial market activity ... with a view to identifying rising leverage and concerns relating to market dynamics...’. The FSF also suggested ‘monitoring the major regular and occasional users of local markets and understanding their core strategies’. We have already chosen to increase our market surveillance through monitoring of hedge fund counterparties, however consideration could be given to building upon this work by enhancing surveillance of hedge fund managers themselves. As only some hedge funds are having a significant market impact in isolation, but some smaller funds can have an impact when

acting as part of a herd (and as the FSA only has finite resources available to devote to such risks), it could be logical to:

- increase continuous supervisory oversight just in relation to those hedge fund managers whose funds and business model have a significant market impact (which would require us to increase our ability to accurately identify these firms); and
- lay the groundwork for an increase in broader scope thematic reviews of hedge fund managers according to the strategies/markets in which they are active. Such thematic reviews could, for example, focus on leverage multipliers in structured credit funds, operational issues in the credit markets, potential liquidity mismatches in funds in less liquid strategies etc.

3.69 This would require a revision to the current practical approach to supervising firms managing hedge funds, including revising how we undertake our impact assessment of these firms (focusing more on market impact), and our consequent allocation of supervisory resources. The approach would build upon the existing risk-based approach to supervision on a firm specific and horizontal basis, in which we have greater supervisory oversight of firms with a higher impact score than those with a lower impact score. Our current estimate is that the universe of ‘high impact’ hedge fund managers who would be subject to enhanced supervisory oversight under this approach is around 15 to 25, although this assessment could change when we are able to make a more informed judgement following the proposed in-depth analysis. Hedge fund managers that pose limited risk to our statutory objectives would remain subject to only a light touch supervisory approach, occasionally supplemented by inclusion in one of our thematic reviews.

3.70 From an internal perspective, we are reorganising our resources to create a centre of hedge fund expertise within the Wholesale Business Unit to support this approach. This centre of expertise will be responsible for relationship management of high-impact hedge fund managers, driving relevant thematic work and supporting authorisation, enforcement and policy initiatives that could benefit from such expertise. This is consistent with wider Wholesale Business Unit initiatives to enhance and focus expertise.

Enhanced data collection

3.71 The only significant revision to the obligations imposed upon firms would be the necessary change to the regular information and reporting requirements. Indeed, information gathering and analysis in a systematic fashion will be critical to any effort to mitigate the risks associated with market quality. In considering any increased reporting requirements we would need to carry out a full and extensive cost benefit analysis (CBA) of the proposals, including an explanation of how we would use this data in practice. We would also have to

satisfy ourselves that the proposals met the ‘Principles of Good Data and Good Data Collection’, as stated in DP05/1²² and other principles. We would consider such things as:

- keeping the data requirements to the minimum required to adequately supervise the identified risks (while retaining the right to request data on an ad hoc basis for the purpose of thematic reviews);
- considering whether any particularly small hedge fund managers could be excluded from this obligation or whether this would substantially undermine the accurate targeting of thematic reviews;
- avoiding, to the extent possible, asking for data that was potentially non-comparable given methodological differences;
- not duplicating data to be gathered from prime brokers;
- ensuring we understand why we require the data, who will make use of it and how;
- ensuring the data is, as far as possible, data that is already collected by the firms for their own purposes;
- ensuring the cost effectiveness of any increased reporting requirement; and
- limiting the collection of any data to just those firms that are managing a hedge fund.

3.72 To assist with cost benefit analysis of these enhanced data requirements, we believe that it would be beneficial to conduct a trial data collection exercise. We worked with the industry within the framework of our ‘hedge funds as counterparties’ survey to collect data in a format that is efficient and effective while only imposing a proportionate obligation on firms. We believe a similar approach could be beneficial here. We would therefore propose to develop a draft template and request that firms complete it, giving us feedback on ease of completion as well as the optimality of the individual questions.

3.73 On the basis that the data set would be based on the minimum data required and readily available information, the sort of information we might consider collecting would include:

- the prospectus and (where available) marketing pack of each fund²³;
- the strategy bucket(s) (using widely accepted industry categorisations) of each fund (this would be an ongoing requirement i.e. firms would need to notify us of any changes/additions to the strategy(s) followed);

22 DP05/1 Integrated Regulatory Reporting (IRR) for: Deposit takers, principal position takers, and other investment firms subject to the Capital Requirements Directive (February 2005).

23 It is important to note that such data gathering would not involve a form of pre-approval e.g. there would be no concept that a new fund could not be launched without the FSA first having approved the prospectus or that a firm could be restricted from changing strategy without prior approval.

- the valuation of the assets under management of each fund, both from the manager's internal systems and from any external administrator;
- gross long and gross short exposure per fund;
- any profit and loss volatility target per fund;
- the monthly return per fund;
- performance fees in the reporting period per fund;
- management fees in the reporting period per fund;
- the number and value of transactions in the reporting period; and
- the total commission paid in the reporting period.

The agreed data set would (other than for non-changing items such as the prospectus) probably be subject to a monthly collection cycle.

- 3.74 In addition to this basic data set, we might consider further requirements for those hedge fund managers with a particularly high market impact assessment. This additional data would clearly need to be relevant to the firm's strategy and would be based upon its internal risk management methodology. Also, we would retain the right to collect additional data from any manager on an ad hoc basis to support thematic reviews that could facilitate the identification of concentrations of risk, significant leverage, liquidity issues, innovative market practices, Code of Market Conduct issues etc. Although there would still be some variation in the risk management methodologies etc applied by the firms included in these reviews, structuring the examinations on a strategy basis should help us to make comparisons. This information/reporting could be used in conjunction with, and as a complement to, the information gathered as part of the 'hedge funds as counterparties' surveys, helping to build a clearer picture of the industry and its risk profile.
- 3.75 We would consider any reporting requirements for firms managing hedge funds as part of the overall Integrated Regulatory Reporting project, given the obvious need for a rule change to support enhanced data collection. This project has concentrated to date on retail firms, but will shortly be turning its attention to 'wholesale' firms and this issue would be considered alongside the wider question of our data needs for supervisory purpose for 'wholesale' firms. We expect to publish a Consultation Paper in the first quarter of 2006 which should include reporting requirements for a wide-range of firms and sectors including: deposit takers, principal position takers and investment firms impacted by the Capital Requirements Directive; Markets in Financial Instruments Directive (MiFID) and non-MiFID investment firms; groups & consolidated reporting; and recognised bodies. This follows on from early considerations for deposit takers, principal position takers and investment firms affected by CRD in DP05/1.

Revised impact metrics

3.76 The data gathered from hedge fund managers could be assessed according to pre-determined impact metrics (revised to focus on market impact) to assess the appropriate regulatory oversight. In developing such metrics, we would have regard to the different liquidity profiles of the markets in which the hedge fund manager was active (as, for example, a £500m fund in the FTSE 100 long-short space could be considered to have a considerably different market impact from a £500m fund in structured credit). So, the metrics might be based upon factors such as:

- size – assets under management (weighted by strategy);
- risk appetite – gross exposure (and therefore implied leverage);
- liquidity provision – transaction volume; and
- counterparty significance – commission paid.

Further work on the precise impact methodology could be conducted following feedback from this DP about the best approach to supervising hedge fund managers. Any final methodology will need to be consistent with general ARROW approaches on tailoring metrics to particular industry segments versus general applicability.

The benefits and limitations of enhanced markets related surveillance support by revised notification and data requirements together with amended impact metrics:

3.77 The core benefit of this enhanced supervisory structure is that it would allow us to conduct our market-related surveillance and supervisory activity in a more efficient manner. The improved regulatory data would allow us to more accurately identify firms with a significant market impact and target our supervisory resources accordingly. As the data would be received regularly, we would also be able to identify any significant changes to a firm's impact over time. Given that the data would allow us to understand the strategy (or strategies) pursued by the firm and therefore the markets and products in which it would be active, we would also be able to target thematic work more accurately. Generic findings from such supervisory activity could be communicated to the market via publications such as the Financial Risk Outlook, 'Dear CEO' letters, newsletter and speeches, increasing market awareness of particular risks and identifying stronger and weaker practice for responding to such risks. The findings could also inform regulatory policy and international regulatory dialogue.

3.78 This approach could increase our awareness of major trends in the hedge fund sector, as well as the potential for the build-up of large positions in the high-impact firms. Although it could not provide a failsafe mechanism for

predicting where a crisis might occur, it would allow us to respond more effectively to any crisis, using our enhanced knowledge of who might be active in a particular market and therefore might have exposures or expertise that could be of relevance in managing and mitigating the impact of the crisis.

- 3.79 It is important that market participants clearly understand the limits to our oversight and control in such circumstances. There is a degree of moral hazard for regulators in supervising hedge fund managers in that it might lead to unrealistic expectations of the results. Regulators may not have the same level of resources available to them as market participants to analyse hedge fund related information and therefore must adopt a risk-based approach which inevitably cannot provide guarantees of financial soundness etc. Nevertheless, conducting informed supervision tailored to identified risks has, in conjunction with responsible risk management by hedge fund managers and effective due diligence by hedge fund counterparties and investors, the potential to reduce overall levels of risk.
- 3.80 Clearly any decision to increase data requirements has the potential to increase compliance costs for firms. It is our belief that the cost of providing the additional data necessary to support the enhanced supervisory structure and targeting of thematic reviews we have outlined above would be confined to the cost of collation and submission given that the type of data required would be consistent with that generated internally for management purposes. Industry views on the most appropriate data set would however be very useful.
- 3.81 Furthermore, there is a risk that enhanced supervisory oversight could, by increasing the regulatory burden for hedge fund managers, and particularly those hedge fund managers deemed to have a high market impact, cause firms to question their decision to be located in the UK. This risk is in part mitigated by the substantive regulatory initiatives underway or under consideration in other jurisdictions, however it still merits consideration, particularly as the FSA is required to have regard to the competitive position of the UK.

Q4: Should the FSA make undertaking hedge fund management a notifiable event under the Handbook or are other alternatives for differentiating such firms preferable, such as requiring them to obtain a specific permission from the FSA before undertaking such activity? Are the investment techniques typically employed by hedge fund managers (such as short selling, using derivatives for investment purposes and the use of economic and instrument leverage), and not issues of legal structure, the optimal characteristics on which to base any definition?

- Q5: Should we also consider differentiating prime brokers from other types of regulated entity by creating a notifiable event under the Handbook or are other alternatives for differentiating such firms preferable, such as requiring them to obtain a specific permission from the FSA before undertaking such activity?
- Q6: Recognising that, in assessing potential new regulatory initiatives, the FSA will take into account the regulatory burden imposed on firms and its effect on the competitive position of the UK, what are your views on the optimal scope of enhanced ongoing supervision (focused on market issues) of those hedge fund managers who manage funds with a significant market impact and the methodology for identifying such firms?
- Q7: Recognising that the FSA would take into account the costs and benefits of additional data collection, do you have any suggestions about the optimal data set to be collected from hedge fund managers and could you indicate the likely costs involved in its production?

Due diligence

- 3.82 As previously stated, we do not and can not operate a zero failure regime with respect to hedge funds. Neither can we guarantee the financial soundness or profitability of funds. Investors in hedge funds and counterparties with exposures to hedge funds are therefore at risk of significant losses in the event of a hedge fund collapse or substantive hedge fund distress. Investors and counterparties are currently attempting to mitigate this risk via effective due diligence both before any initial investment/exposure and on an ongoing basis. Some market participants are seeking expert advice from consultants where they do not feel sufficiently qualified to undertake this due diligence alone.

Potential additional domestic risk mitigation

- 3.83 Our regulatory approach cannot remove the need for considerable due diligence to be undertaken by investors and counterparties. The onus must remain upon them to understand what they are buying/creating an exposure to or take appropriate advice. Nevertheless, we could potentially help the industry to mitigate these risks by encouraging industry wide initiatives to improve disclosure and due diligence standards. The Alternative Investment Management Association (AIMA) has already developed due diligence questionnaires for hedge fund investors and hedge fund of funds investors. Such initiatives could be further encouraged, with considerable emphasis

placed on the importance of tailoring due diligence to identified risks and updating guidance following market developments. Focus could also be placed upon the importance of ongoing due diligence in addition to up-front due diligence. If such initiatives were expanded globally this could prove particularly beneficial, taking into account the highly international and mobile nature of the hedge fund industry.

- 3.84 Alternatively (or additionally) we could consider providing guidance on appropriate investor disclosure standards, in particular whether managers should disclose the existence of side letters or managed accounts when managing their conflicts of interest in accordance with existing FSA Principles and conduct of business rules.

The benefits and limitations of encouraging improvements in disclosure and due diligence

- 3.85 The benefits of such an approach primarily relate to the ability of investors and counterparties to protect themselves against hedge fund related risks they would normally be unwilling to take on. Effective due diligence supports accurate risk identification and therefore informed decision-making about acceptable exposure levels. High quality due diligence could also allow hedge fund investors and counterparties to have a moderating influence on hedge fund managers. This is because if they are informed about exposures and are unhappy with the levels of risk being run then they have the opportunity to withdraw investment or credit lines. In reality, such a withdrawal may not be required; the mere threat of withdrawal could engender risk reduction by the hedge fund manager.

- 3.86 The limitations of this approach relate to three factors:

- due diligence is only possible on available data, inadequate or inaccurate disclosure by hedge fund managers will impair due diligence by investors and counterparties;
- due diligence in itself does not reduce risk, it merely allows the effective assessment of risk and consequent informed decision taking; and
- no matter how effective the due diligence, shocks can still occur.

Q8: Should the FSA encourage industry initiatives to improve investor due diligence and best practice as it relates to disclosure? Are there any alternative regulatory actions that should be pursued in this area, for example would you consider it helpful to receive FSA guidance in relation to disclosure, particularly in relation to side letters and managed accounts?

Valuation

- 3.87 There are a considerable number of operational risks inherent in the valuation of hedge fund assets which may affect investors' ability to accurately assess hedge fund manager performance (and therefore take informed investment decisions). This might have implications for price formation in hedge fund shares and the markets more generally, and therefore market quality.
- 3.88 Typically, an independent valuation of UK-managed hedge funds is sought from a third party administrator. This does not have its origin in any particular legislative or regulatory requirement. Unlike the situation for collective investment schemes, hedge funds are not required to have independent depositaries or trustees whose role is to ensure that the funds' assets are valued in line with regulatory rules. Hedge fund managers are presumably seeking independent valuations at the request of the fund's investors (and potentially counterparties). This reflects the significant conflict of interest that would be created where a hedge fund manager produced its own valuations that would in turn determine the amount of performance fees it earned²⁴. Hedge fund managers are however generally highly critical of the administration industry. It has been suggested that, given the recent significant expansion of the hedge fund industry, administrators are over stretched and do not always have the requisite skills/staff to provide a high quality asset valuation service, particularly for complex and illiquid assets. It would appear that there is a considerable range of quality across the administrative industry, with some firms attracting a far greater degree of respect than others.
- 3.89 Many hedge funds invest in illiquid or complex assets for which there is no public screen price. Administrators who are performing the valuation of illiquid or complex assets are forced to rely upon a combination of:
- counterparty quotes;
 - valuation models (frequently developed by the hedge fund manager itself); and
 - direct valuations from the hedge fund manager.

Clearly these methodologies call into question whether the valuations are truly independent. If the industry quote is obtained from the actual counterparty to the trade then they might have an incentive to mis-price the deal for their own internal purposes. This risk is particularly significant where it is the actual trader, rather than an independent back office function, who provides the valuation. The conflicts of interest inherent in counterparty valuations could be significant where the administrator is also the fund's counterparty or prime broker.

24 As noted in chapter 1, charging performance fees in addition to management fees is a common feature of hedge fund management.

- 3.90 Using valuation models developed by the hedge fund manager exposes the investors to the risk of the hedge fund manager developing a model that consistently over or under values assets (or smoothes volatility). This risk is greater where the hedge fund manager is actually generating the valuation itself. These risks are mitigated somewhat by the use of external auditors to review the models. In respect of assets for which there are no easy or robust valuation methodologies and counterparty quotes are unavailable, administrators usually accept the hedge fund manager's own valuation. This can sometimes mean that a significant proportion of the fund's assets are not subject to independent valuation. Hedge fund managers generally perform their own internal valuations of all positions and seek to reconcile these with the administrators at the end of the month. It would appear that the hedge fund managers may wield significant ability to influence the administrators' 'independent' valuations at this point in the process through their dialogue with administrator staff and the counterparties who are providing the quotes.
- 3.91 Related to this it should also be noted that the monthly newsletters which are sent to investors sometimes use valuations based on internally generated data rather than external valuations. Given the impact of valuation on a hedge fund manager's underlying business model through the impact of performance fees, the potential for a conflict of interest is a source of serious concern. The situation is further complicated given the lack of clarity in respect of responsibility for bearing the cost of valuation errors. Generally speaking fund investors might have a reasonable expectation that they will be compensated for such errors, however the regime in the jurisdiction where the hedge fund was established may differ from this approach. Clearly there is significant reputational risk where either a fund manager or its administrator fails to take responsibility for an error.
- 3.92 Weaknesses in the valuation process both in terms of pricing methodologies and independence are recognised by the hedge fund industry as presenting a significant risk. AIMA recently made a number of recommendations following their own survey of pricing and fund valuation practices in the hedge fund industry²⁵. They focused on suggested improvements in governance, transparency, procedures, processes and systems, and pricing.

Potential additional global risk mitigation

- 3.93 Significant weaknesses have been identified with respect to valuation methodologies and processes (which extend beyond market quality issues to fraud – see Chapter 4 and the risks to our financial crime objective). Given this, we believe that additional risk mitigation may be justified. The aim of any initiative would be to stimulate improvements in the quality and

25 Asset Pricing and Fund Valuation Practices in the Hedge Fund Industry (April 2005).

independence of hedge fund valuations. Three key difficulties arise with respect to promoting improvements in relation to valuation:

- the largely unregulated nature of the hedge fund administration industry;
- the international, frequently offshore, nature of the hedge fund administration industry; and
- the level of skill required to value complex assets.

This suggests that a global, voluntary and cooperative exercise may have merit. It is worth noting the success of the IOSCO Code of Conduct Fundamentals with respect to credit rating agencies. IOSCO worked closely with the industry, which was unregulated in many jurisdictions, to develop a number of criteria which the rating agencies have undertaken to adopt within their own codes of practice. A similar approach could be followed for administrators. This could be supplemented by increased dialogue and information exchange with those regulators in other jurisdictions who do supervise administrators.

- 3.94 Another option would be for us to seek to encourage developments at a European level, perhaps in the context of the European Commission's intended dialogue on the hedge fund industry. An EU legislative measure in relation to administrators could raise standards across the industry, albeit limited in scope to the EU.

Potential additional domestic risk mitigation

- 3.95 An alternative to a global code of conduct would be for us to work with industry bodies and firms within the UK to stimulate the development of national criteria that could raise standards. We have already taken note of AIMA's initiative to improve valuation standards. Such initiatives could be successful in raising standards, especially if they were able to draw in comprehensive representation from both the demand and supply side i.e. investors, hedge fund managers, administrators and hedge fund counterparties, as well as significant related parties such as accountants/auditors.
- 3.96 Another option would be for us to engage with market participants such as investment banks, and encourage the development of a market solution that would provide an independent valuation service. We could also include valuation issues within the risk mitigation programmes of hedge fund counterparties and UK supervised financial groups including an administrator, with a particular focus on conflict of interest management arrangements.
- 3.97 An alternative to legislative action at European level could be for us to impose a rule on authorised hedge fund managers to the effect that they must ensure that any funds they manage are subject to robust independent valuation. This could oblige hedge fund managers to seek improvements in the services they

purchase from administrators, ceasing to employ administrators that could not provide sufficiently robust and independent valuations. We could also consider clarifying our expectations on the treatment of valuation errors, although this may pose complex questions in relation to the potential for conflicts of laws between the UK's regime and that of the jurisdiction where the fund is domiciled (we have observed that a number of jurisdictions in which hedge funds typically may be domiciled have laws on this and that there is some variation in these laws).

- 3.98 A final alternative might simply be for us to issue a 'health warning' on our concerns about hedge fund valuations, reflecting the predominantly professional nature of the investor base and their ability to understand the risks inherent in their investments.

The benefits and limitations of the risk mitigation options in relation to valuation

- 3.99 The benefits and limitations would vary significantly according to the precise nature of the option selected. As this is a very new area for regulatory consideration, there is no detailed analysis currently available. A number of factors do however merit consideration including:
- as the geographical coverage of any initiative increases, so the potential for it to create competitive distortions decreases;
 - as the number of parties involved in any initiative increases, so the difficulty in reaching a meaningful agreement that is acceptable to all increases;
 - the greater the ability and willingness of the market to address a risk, the less need there may be for regulatory intervention;
 - inevitably the willingness of industry participants to raise standards will be a function of their own cost benefit analysis;
 - regulatory initiatives, particularly where they are rules based, may impose greater costs than industry initiatives;
 - regulatory initiatives have greater potential to guarantee success, although the possibility of regulation coupled with ongoing regulatory monitoring may provide a sufficiently strong stimulus to promote improvement;
 - any action should respond to an identified market failure and be entirely proportionate i.e. it should be able to pass cost benefit analysis;
 - the hedge fund industry will always remain innovative, so any initiative would need to be flexible and adaptable; and

- any initiative is limited by the availability of relevant expertise and resource, which may be scarce in relation to the valuation of complex assets.

Q9: Do you believe that regulatory action is required with respect to hedge fund valuation? If so, should this aim to stimulate voluntary industry improvements or be more rules based? Should the FSA seek to encourage improvements purely in a domestic context or would international initiatives be more effective? Are there any specific forms of regulatory action that you would recommend?

4 Risks to market cleanliness

Key potential risks identified in this chapter:

- **Market abuse:** Some hedge funds are testing the boundaries of acceptable practice with respect to insider trading and market manipulation and, given their payment of significant commissions and close relations with counterparties, create incentives for others to commit market abuse.

- 4.1 Comments from some firms in our market impact review raised concerns that they were, at least, pushing at the boundaries of acceptable practice in relation to trading based on non-public information. In particular, there were questions about practices under which the hedge fund manager might learn enough information about an impending corporate event to pre-position themselves/hedge their position before being formally brought inside. This happens even though the initial information might constitute relevant information for the purposes of the market abuse regime. This risk may be particularly acute in event driven strategies and convertible arbitrage. It was also noted that the market moves before block trades and large bought deals. There were some calls for greater transparency from us on exactly what constitutes inside/relevant information and therefore when a firm should consider itself restricted/an insider.
- 4.2 Hedge fund managers may also be testing the limits of acceptable practice in relation to market manipulation. It was suggested that some larger hedge fund managers might be tempted to use their size, or start market rumours, to deliberately move the market in order to benefit from advantageous prices. Spreading false and misleading information and creating market distortions are breaches of the market abuse regime and we will be prepared to take action where this behaviour has occurred.
- 4.3 There appeared to be a quite substantial amount of Personal Account dealing going on amongst hedge fund staff, however this appeared to be relatively well policed, with staff avoiding securities in which the funds were active.

- 4.4 Generally speaking, overall awareness of the market abuse regime in hedge fund managers would appear to be mixed with, in some instances, considerable dependence placed on training received by staff in prior positions at other firms (usually investment banks). There also appears to be a significant degree of reliance in some hedge fund managers on outside consultants who draft compliance manuals and procedures, without clear evidence of significant firm buy-in to the results. There is however evidence that hedge fund managers are starting to make improvements in this area with some (usually larger) firms developing comprehensive programmes.
- 4.5 When considering market conduct issues in the hedge fund sector it may not be simply a question of considering whether hedge fund managers act inappropriately but also whether their models (including the high commissions they generate and their trading methodology) may create incentives for others to pass inside information to them or show bias in allocations in the hope of being rewarded. Few hedge fund managers tape calls and therefore benefit from this form of protection in such scenarios. Although this issue was not considered during the market impact thematic review, anecdotal evidence suggests that market participants may wish to focus on improving record-keeping standards for restricted lists.

Domestic risk mitigation

- 4.6 The very nature of hedge fund business means that they are vulnerable to involvement in market abuse, either advertently or inadvertently. The market abuse regime applies for any behaviour in relation to qualifying investments which are traded on a prescribed market in, or accessible from, the UK, even if the perpetrator is not authorised and/or located overseas. This means that the regime is fully applicable to hedge funds and their managers. The implementation of the Market Abuse Directive will not change this situation; indeed, it will expand the range of products to which the regime applies. Consequently, any efforts to identify and respond to incidences of market abuse by hedge funds or their managers will not imply a change to the current regulatory regime. Nevertheless, there are certain enhancements to the current implementation of this regime that could be considered.
- 4.7 We use a variety of mechanisms for monitoring compliance with market conduct standards, including transaction reporting. The obligation to report transactions is applicable to a variety of firms as set out in Chapter 17 of the FSA's Supervision Manual (SUP17). However, in practice it is brokers that report the vast majority of transactions that are reported to us. The rules do not apply to hedge funds and are unlikely to apply to their managers.²⁶ One

26 If the manager meets the definition of an *investment firm* the rules would apply to them but, like all investment management firms, they would be able to rely on their broker to satisfy the vast majority of any reporting obligations.

of the key obligations in SUP17 is for firms to report the identity of their counterparty and/or client to a particular transaction. Firms do this by using a code which is applicable to that counterparty. Such codes should be FSA reference numbers, Business Identifier Codes (BICs) where they are available or, failing that, the firm's own internal code for the counterparty or client. As the legal counterparty to the transaction is the hedge fund itself and not the manager, the codes used to identify the funds are the brokers' own internal codes rather than being a common code used by all market participants. This makes surveillance more time consuming as we are obliged to request brokers to translate such codes on a case-by-case basis and it is much more difficult to aggregate a fund's trading across a variety of brokers.

- 4.8 We will be reviewing SUP17 as part of the implementation of the Markets in Financial Instruments Directive and will be considering how to improve the value of the counterparty information supplied by firms. One possibility being considered is whether we should require firms to report the investment manager, including the hedge fund manager, as the counterparty to the transaction. A number of firms have already sought permission to do this as it makes their reporting easier and it provides us with the more useful information about the decision-maker behind transactions. It would mean that more counterparties were identified using FSA reference numbers; it would reduce the number of occasions we need firms to translate the internal codes they have used; and it would also facilitate greater aggregation of a manager's trading across a variety of brokers. In addition, we are considering redeveloping our transaction monitoring systems to improve our ability to identify potential instances of market abuse.
- 4.9 We are undertaking proactive surveillance with respect to market conduct, undertaking thematic reviews. For example, we have looked at the issue of credit portfolio trading and the use of non-public information. We are also conducting a selective review of cases where institutions have been well crossed in advance of the launch of convertible bonds. Other thematic reviews could be considered in the future.
- 4.10 The implementation of the Market Abuse Directive will clarify a number of areas in relation to insider trading and market manipulation. We are prepared to provide individual guidance to market participants seeking advice on whether a particular strategy or transaction may infringe the market abuse regime. Hedge fund managers should be encouraged to enhance market abuse training, particularly in the context of the implementation of the Market Abuse Directive, but ensuring that such training becomes embedded in the control environment on an ongoing basis.

- 4.11 Supervisors of hedge fund counterparties could support thematic work by reviewing firms' policies and procedures to prevent their involvement in market abuse. Such considerations could be included in the risk mitigation programmes of hedge fund counterparties.

Takeover Panel's rules on CFDs

- 4.12 Transactions in CFDs are reported to the FSA for the purposes of surveillance, they are not however generally reported to the market. The Takeover Panel (TP) is proposing a change to its rules that will bring more market transparency to dealings in CFDs and other derivative instruments during bids. In an initiative we welcome, the Panel is proposing to put derivatives on the same footing as shares. Enhanced ongoing market disclosure (i.e. outside an offer scenario) would however require legislative change. The scope of our powers under the Transparency Directive (including the classes of financial instruments in respect of which we will be able to make rules to require disclosure) is currently the subject of consultation. The Government intends to implement the major shareholding notification provisions of the Transparency Directive via the Company Law Reform Bill²⁷. In the context of this consultation we would welcome specific consideration of this issue.

27 www.hm-treasury.gov.uk/consultations_and_legislation/transparency_directive/transparency_directive.cfm

5 Risks to our financial crime objective

Key potential risks identified in this chapter:

- **Fraud:** Incentive structures, light regulatory oversight and weaker control environments increase the likelihood that hedge fund managers will commit fraud e.g. by issuing false valuations.
- **Money laundering:** Initial assessments suggest that hedge fund managers are no more likely than traditional investment managers to fail to fulfil their anti money-laundering responsibilities, although some residual risk remains.

Risk: Hedge fund managers commit fraud e.g. by issuing false valuations

- 5.1 Several hedge fund scandals have surfaced over the last few years that have received public attention and resulted in losses to investors. The SEC has pursued 51 such cases against US based managers that defrauded hedge fund investors or used the fund to defraud others in amounts estimated at \$1.1bn over a five year period²⁸. The rapid growth of hedge funds and their very visible success means it is perhaps inevitable that the sector has attracted a number of fraudulent operators seeking to exploit investors.
- 5.2 So far at least, the experience of fraud among US managed hedge funds has not been a problem for investors in UK managed funds. In this context, it is estimated that only 40% of hedge fund advisers are SEC registered²⁹. This contrasts with the UK where hedge fund managers are required to be authorised by us (as with any investment manager) so they have to meet our requirements for Threshold Conditions including adequate compliance arrangements. We also assess and approve the fitness and propriety of the individual members of the governing body of the hedge fund manager and the individuals carrying out the discretionary investment management function in

28 SEC Registration under the Advisers Act of certain hedge fund advisers; Final Rule, January 2005.

29 Hennessee Group LLC 10th annual manager survey: 2004.

line with the Approved Persons Regime. This includes checking individuals for adverse regulatory or financial history, criminal records and business failings.

- 5.3 In reviewing some of the hedge fund fraud cases that have received attention over the last few years there is a distinction between:
- fraudsters who pretend to operate a hedge fund but in fact are just using hedge funds as a vehicle for taking money by deception with no real fund or trading involved; and
 - managers deliberately issuing false valuations when their investment or trading strategies go wrong.
- 5.4 In the following examples, we focus on the latter which is more specific to risks of loss created by the more sophisticated investment management techniques used by hedge fund managers.
- 5.5 An established US hedge fund manager of fixed income strategies worked off a well established quantitative model. A sudden change in the nature of these relationships led to dramatic losses. These were compounded by the manager becoming even more aggressive in an effort to make back the losses. Up to this point, investors had lost money but no fraud was involved. However, the manager then started covering up the losses by issuing false valuations. When, this was finally caught by the prime broker, the losses were estimated at \$300m.
- 5.6 A Canadian firm falls into the category of poor internal controls and valuations that permitted loss making trading to go unnoticed compounded by a subsequent cover-up. Losses exceeded \$100m and the firm was closed in 2000.
- 5.7 Most UK managed funds administrators are based offshore, largely in Ireland, the Cayman Islands or Luxemburg. Therefore, if the administrator rather than the manager were responsible for false valuations it would likely be the responsibility of other regulators. In any particular case it would be important to clarify the jurisdiction of the relevant authorities.
- 5.8 Investor losses that result from fraud are a risk to three of our statutory objectives consumer protection, market confidence and financial crime. How valuation errors (as a result of fraud or due to control failings) affect our market confidence objective is covered in Chapter 3.
- 5.9 It is difficult to justify mitigating fraud in hedge funds as a priority for the FSA from our consumer protection objective as current UK investors in hedge funds are generally sophisticated and consciously choose to invest in an offshore fund rather than an onshore regulated fund so they should be aware of the attendant risks. Therefore, in line with our risk based approach we would not expect to devote scarce regulatory resources to supplement the due diligence undertaken by both investors and counterparties, although we might encourage the industry to raise its own standards.

- 5.10 We do have a statutory objective to mitigate the risk of financial crime which may justify some regulatory resources being spent on reducing financial crime risk when committed by FSA authorised hedge funds managers. This could be subject to thematic supervisory work.

Risk: Hedge fund managers do not fulfil adequately anti money-laundering responsibilities

- 5.11 Hedge fund managers or operators based in the UK have been subject to the Money Laundering Regulations since 1994, even if the assets that they manage are held overseas. The Regulations oblige them by law to know their customers, including indirect customers introduced to them by intermediaries. The Guidance Notes of the Joint Money Laundering Steering Group (JMLSG – a group of financial sector trade associations) give detailed guidance on the obligation and how it might be met.
- 5.12 FSMA gave us a new regulatory objective of reducing the extent to which regulated firms can be used for the purposes of financial crime, including money laundering. It also gives us a range of powers to use in pursuit of that objective in relation to firms we regulate, including hedge fund managers. Using our powers to make rules and give guidance, we published our Money Laundering Sourcebook. This Sourcebook complements the Money Laundering Regulations 2003 and the JMLSG Guidance Notes.
- 5.13 The legal relationship between hedge funds and managers is structured in such a way that the funds are responsible for investor identification. The hedge fund is a ‘client’ of the UK hedge fund manager and, as such, the fund manager must obtain appropriate evidence of identity of the fund depending on how it is constituted (i.e. a partnership or corporate client). It is common practice for the fund to delegate the responsibility of the identification of the investors in the fund to fund administration companies (administrators).
- 5.14 In cases where risks to our financial crime objective arise from the activities of a regulated firm, we can take supervisory action. For example, we could vary a firm’s permission or require the firm to appoint a skilled person to report on improvements that the firm should make. We can also use powers of investigation and information gathering and, in particularly serious cases, we can take disciplinary action against a firm for breach of our rules or other requirements. We also have the power to prosecute breaches of the Money Laundering Regulations 2003. These powers are not limited to regulated firms and approved persons but rather apply to all companies and individuals.

Domestic risk mitigation

- 5.15 A recent FSA project took an initial look at the anti-money laundering (AML) policies, procedures and controls of a small number of UK authorised hedge fund managers. This project concluded that the fund managers visited as part of this project were sufficiently aware of, and had procedures in place to meet, their AML legal and regulatory obligations. While the results were encouraging, we may from time to time wish to conduct thematic or other regulatory work.
- 5.16 As previously mentioned, the administrators have responsibility for investor identification. These administrators are often located in non-UK jurisdictions, so the regulatory oversight for them therefore lies with other regulators. The FSA would need to clearly establish with other regulators their responsibilities to help identify possible risks.
- 5.17 The recent FSA Hedge Funds project also found that some of the UK fund managers went above and beyond their own AML regulatory and legal obligations. The project identified some examples of good or best practice. We may consider raising awareness of the AML practices identified to send an appropriate message regarding best practice and the standards expected within the UK hedge fund management sector.

6 Risks to our consumer protection objective

Key potential risks identified in this chapter:

- **Conflicts of interest;** Hedge fund fee structures may encourage pension fund consultants to excessively encourage investment in hedge funds. These fees structures could also encourage mixed traditional/hedge fund management firms to inappropriately favour the hedge funds when placing or allocating deals.

Risk: Pension fund consultants do not adequately manage conflicts of interest

- 6.1 UK pension funds are increasing their exposure to hedge funds. A recent JP Morgan survey estimated that 12% of UK pension funds allocated 4.8% of their portfolios to hedge funds at the end of 2004 up from 2% of institutions in 2003. Pension fund consultants play a critical role in helping pension plan trustees deal with asset allocation decisions and manager selection. Conflicts of interest may arise from the role of pension fund consultants advising pension fund trustees to allocate some of the schemes assets to hedge fund investments. Some consultants are setting up hedge fund-of-funds advisers and who receive regular fees from fund of hedge funds. This means there could be an incentive for consultants to advise allocation to hedge funds as they will receive extra fees.
- 6.2 Although the main pension fund consultants are authorised by us for some activities, advising pension funds on asset allocation is not a regulated activity. Therefore, pension fund consultants are not covered by FSA principles or rules on managing conflicts of interest in relation to that activity.
- 6.3 The Pensions Act 2004 requires trustees to be conversant with their own scheme and to have knowledge and understanding of pension and trust law, of the principles of scheme funding and of the principles of investment of scheme assets. The Pensions Regulator (TPR) has powers in relation to scheme governance, including where appropriate the competence of trustees. TPR have recently issued a code of practice “Trustee Knowledge and Understanding” to provide practical guidance on appropriate levels of knowledge and understanding.

Domestic risk mitigation

- 6.4 In line with our memorandum of understanding with The Pensions Regulator, we intend to share our risk assessment with them and open a dialogue on the appropriate response.

Risk: Authorised fund managers do not adequately manage conflicts of interest

- 6.5 Where an asset management firm manages both 'long only' and hedge fund mandates, conflicts can arise. Managers could, for example, be influenced by the performance-based compensation structures of hedge funds, which produce higher fees compared to 'long only' funds, to show favouritism to hedge fund mandates when placing deals or allocating deals placed if orders are not fully filled.

Domestic risk mitigation

- 6.6 We expect asset management firms to manage conflicts of this nature in order to ensure fair treatment for all of their customers, in line with existing FSA Principles and conduct of business rules on conflicts of interest and aggregation and allocation. We will check to ensure that this is the case, particularly through supervision of retail fund managers that have hedge fund mandates (including relationship management and case work). We may also supplement this in the future with a thematic review.

7 Miscellaneous Issues

Issue: Large exposure requirements for managers

- 7.1 One issue in relation to capital in hedge fund managers that was brought to our attention arises from large exposure requirements. This rule (which has its origins in EU Directives) is sometimes breached by hedge fund managers (and other investment managers). The reason for this is that they tend to maintain relatively low levels of capital in their firms/partnerships so when the fund performs well and the hedge fund manager is therefore owed a substantial performance fee by the fund this generally creates a large exposure that attracts a capital requirement. This exposure is only generated because profits have been made therefore there is limited likelihood of the fund not paying the fund manager. Despite this low risk, firms have to submit rule breach letters.

Potential additional domestic risk mitigation

- 7.2 We think it could be beneficial to provide additional guidance on appropriate techniques for managing liquidity risks, for example explaining (perhaps in the context of MiFiD implementation) collateral treatments that could assist with the management of large exposure requirements.

Issue: Controlled functions

- 7.3 A common mis-understanding about our requirements in this area means that many hedge fund managers have staff with unnecessary duplications in their controlled function approvals, in particular unnecessary approvals for CF21 in addition to CF27. (CF21 is Investment Adviser and CF27 is Investment Manager).

Potential additional domestic risk mitigation

- 7.4 Our Handbook Review consultation paper will consult on changes to scale back and simplify our controlled functions regime. This will include a

proposal to dis-apply our customer functions altogether for approved persons that only deal with wholesale (or ‘non-private’) customers.

Issue: Alternatives to regulatory action

- 7.5 It is possible that industry initiatives could provide a valid alternative, or supplement, to some of the regulatory risk mitigating actions outlined earlier in this paper. The FSA is aware of a number of beneficial industry initiatives already in place, only some of which have been alluded to here.
- 7.6 Participants in this sector may wish to give consideration to the development of a ‘Code Of Practice’ with a view to covering a variety of issues critical to building and maintaining high standards and consequently improving the reputation of, and confidence in, the hedge fund industry. This possibility has been raised by a number of market participants and would build upon existing targeted industry guidance. It should be noted that the FSA encourages industry responses to identified market failures (and preventative measures) and will take such developments into account when considering whether regulatory action is required in a particular area. Given the global nature of the hedge fund industry and the markets in which hedge funds participate, consideration could be given to developing such a code on a global scale.

Potential additional domestic risk mitigation

- 7.7 We and/or international regulatory bodies could try to actively support the development of a hedge fund Code of Practice.

The benefits and limitations of developing an industry code of conduct

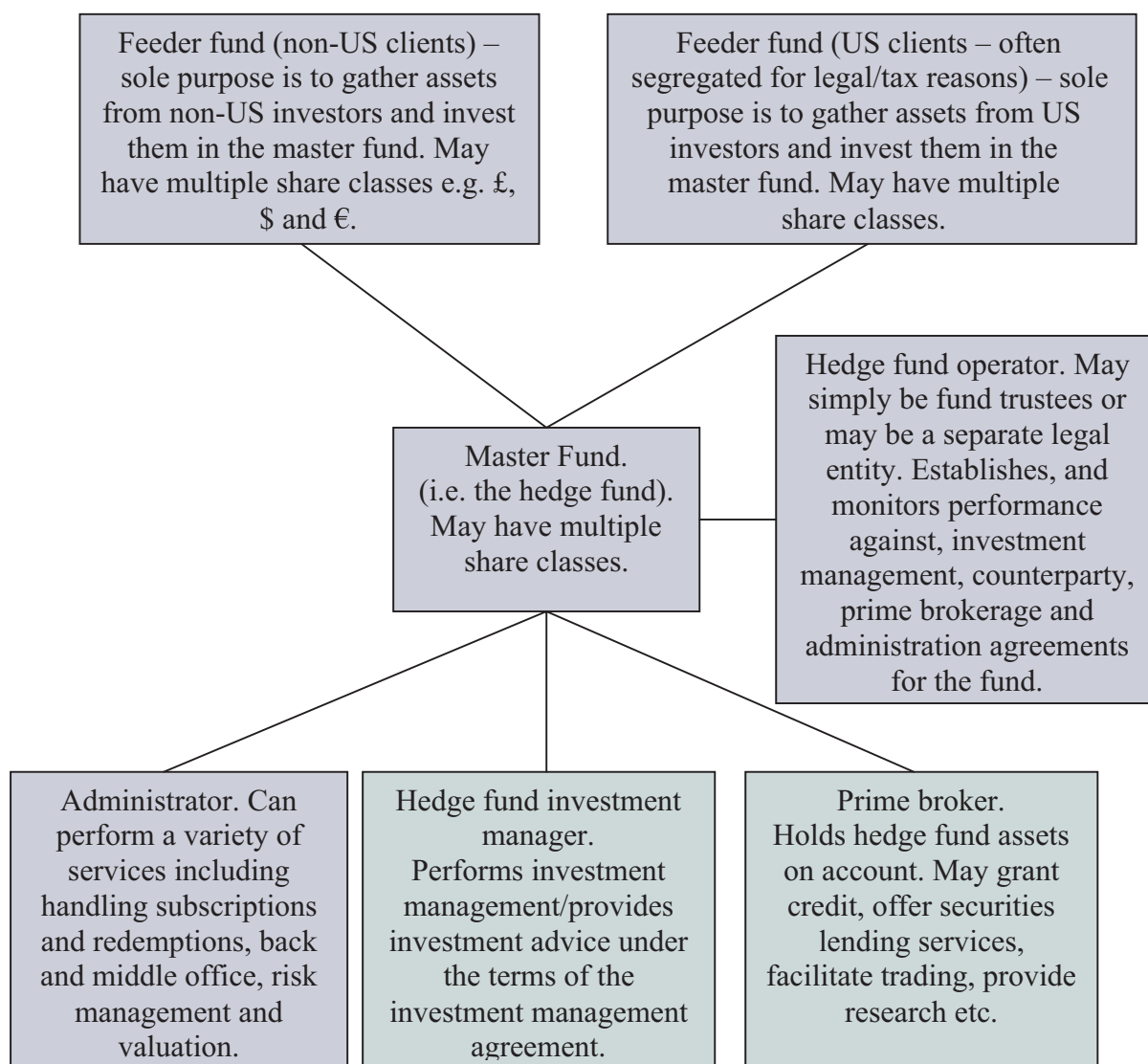
- 7.8 The core benefit of an industry code is that it may lead to an overall reduction in risk. Furthermore, if hedge fund investors and counterparties have confidence that hedge fund managers will behave responsibly, openly, fairly and in line with pre-determined guidelines then the risk of over reaction to market developments may be mitigated.
- 7.9 The limitations of such a code could include its non-binding nature and the difficulty of agreeing an effective code amongst hedge fund managers who currently operate in a highly independent manner.

Q10: Should the FSA and/or international regulatory bodies encourage the development of a hedge fund code of conduct? What would be the optimal method for facilitating such a development? Are there any particular risks in relation to which such a code could obviate the need for regulatory action?

8 Conclusions and next steps

- 8.1 As noted in Chapter 1 of this DP, hedge funds are having a number of positive effects upon the financial system. Against this backdrop, we have sought to identify specific risks and appropriate risk mitigation actions. A number of initiatives are already in place, both domestically and globally, to mitigate hedge fund related risks. We have outlined a number of potential additional risk mitigation actions for consideration. These potential actions are consistent with the FSA's current risk based approach to supervision and would not require substantial changes to FSA rules. Nevertheless, these actions would support the enhanced application of our current supervisory approach.
- 8.2 We recognise the highly mobile and international nature of the hedge fund industry and are conscious that it would not be beneficial if regulatory action caused the hedge fund industry to move to more lightly regulated jurisdictions. Consequently, due care is given to proportionality requirements and the benefits of taking action within international fora.
- 8.3 We are now embarking upon a period of consultation during which we invite views from interested parties that will help us to reach a conclusion on:
- whether we have correctly identified the risks; and
 - which of the potential additional risk mitigation actions merit further analysis;
- 8.4 We would like to receive comments by 28 October 2005. It is our intention to review these comments and issue a feedback statement early in 2006.

Typical Hedge Fund Structure³⁰



= Usually located in an offshore, low tax, regime



= Usually located in an onshore major financial centre such as the UK

³⁰ Structures vary considerably (and therefore may differ substantially from the structure outlined here). This example has been designed to demonstrate a number of interesting potential characteristics of hedge fund structures.

Summary list of questions

- Q1: Are the risks to our statutory objectives outlined in this paper the correct ones? These risks include: serious market disruption; an erosion of confidence in the financial strength of hedge funds and/or their counterparties; a significant liquidity mismatch leading to enforced asset disposals and disorderly markets; insufficient information to inform regulatory action; significant control, operational and potentially credit risks; weaknesses in risk management; ill-informed investment decisions and detriment to market confidence as a consequence of valuation weaknesses; market abuse by hedge funds or their counterparties; fraud; money laundering; and conflicts of interest.
- Q2: In addition to the FSF and Joint Forum initiatives, are there any global or European regulatory initiatives that could helpfully raise standards in the hedge fund sector?
- Q3: Recognising the importance of stress testing as a risk management tool, do you believe that it is sufficiently embedded within the hedge fund sector and should the FSA take any steps to further encourage such practice?
- Q4: Should the FSA make undertaking hedge fund management a notifiable event under the Handbook or are other alternatives for differentiating such firms preferable, such as requiring them to obtain a specific permission from the FSA before undertaking such activity? Are the investment techniques typically employed by hedge fund managers (such as short selling, using derivatives for investment purposes and the use of economic and instrument leverage), and not issues of legal structure, the optimal characteristics on which to base any definition?

- Q5: Should we also consider differentiating prime brokers from other types of regulated entity by creating a notifiable event under the Handbook or are other alternatives for differentiating such firms preferable, such as requiring them to obtain a specific permission from the FSA before undertaking such activity?
- Q6: Recognising that, in assessing potential new regulatory initiatives, the FSA will take into account the regulatory burden imposed on firms and its effect on the competitive position of the UK, what are your views on the optimal scope of enhanced ongoing supervision (focused on market issues) of those hedge fund managers who manage funds with a significant market impact and the methodology for identifying such firms?
- Q7: Recognising that the FSA would take into account the costs and benefits of additional data collection, do you have any suggestions about the optimal data set to be collected from hedge fund managers and could you indicate the likely costs involved in its production?
- Q8: Should the FSA encourage industry initiatives to improve investor due diligence and best practice as it relates to disclosure? Are there any alternative regulatory actions that should be pursued in this area, for example would you consider it helpful to receive FSA guidance in relation to disclosure, particularly in relation to side letters and managed accounts?
- Q9: Do you believe that regulatory action is required with respect to hedge fund valuation? If so, should this aim to stimulate voluntary industry improvements or be more rules based? Should the FSA seek to encourage improvements purely in a domestic context or would international initiatives be more effective? Are there any specific forms of regulatory action that you would recommend?
- Q10: Should the FSA and/or international regulatory bodies encourage the development of a hedge fund code of conduct? What would be the optimal method for facilitating such a development? Are there any particular risks in relation to which such a code could obviate the need for regulatory action?

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