

Finalised guidance

Derivative risk management practices (DRMP) across the investment management industry

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Contents

Introduction	2
A. DRMP documentation	7
B. Oversight structure	8
C. Counterparty risk monitoring	10
D. Derivative pricing	12
E. Legal documentation	13
F. Collateral and margin management	14
Appendix 1: DRMP survey questionnaire	16
Appendix 2: What we expect	18

Introduction

The FSA's 2009 *Financial Risk Outlook* (FRO) included the following comment on the adequacy of asset managers' resources:

There are concerns that firms may not have adequate resources in place to allow them to robustly trade, settle, value and risk manage the full range of investments within their mandates. Furthermore, firms may not be adequately equipped to perform their own due diligence on the full range of investments being used in their portfolios. As over-the-counter (OTC) derivatives become more commonplace in portfolios, firms face the risk of not being adequately resourced to monitor and manage these alongside traditional investments such as bonds and equities.

While risk-averse investors may become wary of new or complex products in the immediate future, in the medium term we expect investor interest in innovative asset management products to return. New styles of asset management products are inevitable both during a downturn (as firms seek higher margins) and even more so during a recovery. There is a risk that managers may rush into these markets with copycat products, when they have not performed adequate robust product development, or resourced themselves appropriately to provide and risk manage these products. This risk may be compounded by some firms responding to falling revenues by cutting back on developing their infrastructure to use more complex strategies in the short term.

Specific reference was also made to counterparty risk:

Counterparty risk remains heightened in turbulent financial market conditions, particularly as the rate of defaults are expected to rise this year. During 2008 counterparty risk crystallised in a variety of ways. Some firms incurred costs arising from replacing OTC derivative positions with bankrupt counterparties, in part due to having demanded insufficient collateral or rebalancing collateral too infrequently.

The probability of any one of these risks crystallising is correlated to the nature of and quality of a firm's derivative risk controls. We therefore need to have a sufficient understanding of derivatives usage and risk management within firms, to ensure firms are complying with our requirements and risk appetite.

Project background

The survey sought to analyse the derivative risk management practices in place across the investment management industry. To accomplish this, we selected a sample set of 12 'independent' asset management firms, i.e. not a subsidiary of a bank or insurance company and so making their own decisions on methodology, systems and the third party service providers used.

The types of funds managed by the firms in the sample included UCITS III, SICAVs, unit trusts, pensions funds, long/short funds (including hedge funds), investment trusts, segregated accounts, OEICs, NURSs,

charity trusts, unregulated off-shore funds, FCPs, QISs, PIFs¹, US mutual funds, fund-of-funds and multi-manager funds. The UCITS III funds included both funds which used derivatives for efficient portfolio management (EPM) only and those that used derivatives for investment purposes.

Assets under management for the 12 firms ranged from £11 billion to £167 billion.

In recent times the macroeconomic outlook has changed significantly, characterised by periods of severe market volatility. Over the past two years, much of the change within the landscape of financial services has been framed around the crystallisation of counterparty risk. The bankruptcy of Lehman Brothers in September 2008 stands as a reminder of how real and systemic counterparty risk is. This is especially pertinent to derivative risk management given the longer term counterparty exposure these instruments are capable of creating within a portfolio. Moreover, these events have also highlighted the importance of taking a considered and comprehensive approach to the risks arising from the nature, scale and complexity of derivatives usage. A key point to remember is that derivatives are equally capable of reducing or increasing risk across a portfolio.

What are the FSA's expectations?

The FSA's Collective Investment Scheme rules (COLL) – which apply to UCITS, non-UCITS retail schemes (NURS) and Qualified Investor Schemes (QIS) – state that:

An authorised fund manager must use a risk management process enabling it to monitor and measure as frequently as appropriate the risk of a scheme's positions and their contribution to the overall risk profile of the scheme.

COLL, reflecting the UCITS Directive, also requires firms to document specific aspects of risk management with respect to derivatives usage and submit this to the FSA. Other EU regulators have more detailed requirements and approval procedures. However, the introduction of UCITS IV and related CESR guidelines on derivative risk measurement should lead to greater consistency of regulation across the EU.

In the results of this survey we have sought to articulate the state of derivatives risk management across a sample of independent asset managers. However as each of the sampled firms also operate types of investment schemes which fall outside the scope of COLL, the nature and depth of this thematic review was extended beyond the pure ability of each firm to comply with the COLL sourcebook, taking a holistic and outcomes-focused approach to reviewing a firm's derivative practices.

To summarise the results of this survey we have compiled a list of what we would expect to find in firms using derivatives.

Firms should view the findings in this paper and the corresponding indicators of what we expect to find in place as a non-exhaustive list of examples, detailing processes which may assist firms in complying with the requirements in COLL and Principles for Business. The findings and expected indicators represent the FSA's view at the time of writing.

¹ FCP - Fonds Commun de Placement; QIS - Qualified Investor Scheme; PIF - Professional Investor Fund

Good risk management practices within firms reinforces the ability of the FSA to achieve its statutory objectives of protecting consumers and maintaining market confidence.

Principle 2 of the Principles for Businesses states:

A firm must conduct its business with due skill, care and diligence.

Principle 3 of the Principles for Businesses states:

A firm must take reasonable care to organise and control its affairs responsibly and effectively, with adequate risk management systems.

Survey methodology

Data collection was undertaken through:

- analysis of derivative risk management process (DRMP) documents;
- answers to a formal set of questions (shown in Appendix 1);
- a subsequent request for additional information; and
- meetings with representatives from each firm.

The DRMP documents varied in the content of information provided. Therefore, as the second step and in order to obtain comparable information, a questionnaire was sent covering seven topics:

- fund / product information;
- derivatives oversight structure and process;
- third party providers;
- counterparty exposure monitoring;
- collateral management;
- legal agreements; and
- OTC pricing.

These seven topics were chosen having taken into account the risks discussed in the FRO and sub-sector issues. Using the information obtained, firm interviews were conducted with individuals whose responsibilities matched with the key topics. Typically this involved:

- compliance / compliance monitoring;
- risk management / derivatives risk management;
- investment administration / derivatives operations senior members of counterparty risk committee (where such a committee exists or equivalent) – alternatively, senior credit risk representatives;
- chief investment officer;

- risk reporting; and
- head of fund services / TPA relationship managers.

It should be noted that substantial attention and commentary has already been expended upon the capabilities, limitations and the potential deficiencies of market risk methodologies and Value at Risk (VaR) based estimates of risk. These include assumptions that future market movements will mimic those in the past, that correlations between securities will remain stable and that market liquidity will be sufficient to close out positions. Each of the firms visited for this project indicated compliance with relevant regulatory expectations and this topic was not covered in depth during the course of this survey. This survey has instead sought to focus upon risk areas where supervisory guidance may be less well developed.

While the survey team received written responses and sample reports, a large amount of information at a granular level was also obtained during firm visits. The answers given during the meetings were accepted as presented. They therefore represent practices at a moment in time; there is evidence, both formal and anecdotal, that some of these practices have subsequently been improved.

Findings

The survey concentrated on six areas. In general, oversight strengths and weaknesses at the firms were mixed across the topics but there were no firms which showed weak practices across all the areas. That said, three themes emerged as inconsistently addressed across the 12 sample firms:

1. The firms' approaches to monitoring and reporting their derivative risks ranged from a narrow compliance-focused exercise to a broad approach which encompassed risks in every aspect of the business model. Incomplete monitoring and fractured reporting of risks results makes it difficult for the firm to see a complete picture of its risks in a timely manner.
2. All of the firms evaluated whether fund managers had a proper understanding of the derivatives they sought to use. It was less clear the extent to which the firms sought to ensure board members, fund directors and staff in settlement and monitoring functions understand the risks around derivatives. These functions are less able to challenge if they do not understand the risks, or the risks taken under business-as-usual conditions.
3. The firms had differing definitions of market and counterparty risk and as a result, the oversight processes varied greatly in frequency, content, and depth of analysis, particularly regarding unsettled trades, margin money and prime broker collateral monitoring. This issue showed the most divergent practices of the survey and so implies industry standards and good practices are still evolving in this area.

The three other themes are better and more consistently addressed across all the firms and represent a lesser risk:

4. All the firms had an independent pricing process, i.e. were not solely reliant on front office or counterparty prices. The pricing procedures generally had performance standards agreed with a third party and a pricing committee if the usual data sources were unavailable.
5. The firms had addressed legal risks around OTC derivatives by requiring ISDA master agreements and credit support annexes as standard documentation.
6. All firms had established approaches for collateral and margin management. Each of the 12 firms was able to post margin or collateral on derivatives positions and undertake verification of margin pricing and collateral calls.

Analysis

The analysis is split into the following topics:

- A. DRMP documentation
- B. Oversight structure
- C. Counterparty risk monitoring
- D. Derivative pricing
- E. Legal documentation
- F. Collateral and margin management

Each section is followed by indicators of what we expect to be in place at firms.

A. DRMP documentation

The types of funds managed by the firms in the sample included UCITS III, SICAVs, unit trusts, pensions funds, long/short funds (including hedge funds), investment trusts, segregated accounts, OEICs, ICVCs, NURS, charity trusts, unregulated off-shore funds, FCPs, QIS, PIFs, US mutual funds, fund-of-funds and multi-manager funds. The UCITS III funds included both funds which used derivatives for efficient portfolio management (EPM) only and those that use derivatives for investment purposes.

The survey team sought initial information on derivatives risk management through a review of DRMP documents. Some of the firms in the survey were also active in Luxembourg and Ireland, and most firms in the sample either produced similar, but separate, DRMP documents for each jurisdiction, or alternatively, produced one DRMP document which described a single derivative oversight process for all the funds it managed.

However, there were some firms without an overall derivative risk approach; they fulfilled the regulatory monitoring requirements as a compliance exercise rather than as a part of a comprehensive firm-wide risk process.

Across the sample of firms, we are concerned that informal or fractured monitoring activities will result in some risks being missed.

What we expect:

Documentation showing the processes for the oversight of risk exposures across the entire business model, including activities which are outsourced.

Documentation reviewed at least annually and updated when regulations or processes change.

B. Oversight structure

To obtain a sense of the oversight of the use of derivatives, we requested information about:

1. how a firm determines that fund managers have a sufficient understanding of the derivatives they intend to use;
2. how new derivatives were approved for initial use; and
3. the understanding of derivative information given to firm, and fund, board members.

Robust processes in these areas would ensure the use of the derivatives is appropriate to the surveyed funds' investment guidelines and that the individual investment managers and directors understand the risks arising from derivative use. These risks can be substantially different than the risk of holding bonds and equities (for example, time decay of options or the use of assets for margining requirements). The firms surveyed had a variety of approval processes but all had recognised the need to ensure adequate investment manager knowledge and taken steps to address it.

In addition, five of the firms surveyed mentioned structured training or knowledge assessment for non-investment management staff. This enables the processing and support areas to better understand and hence better control the operational risks of derivatives.

Any documented sign-off processes focused on the investment manager who would be using a particular derivative. Typically, such evaluations took into consideration the individual fund manager's previous experience and/or their related qualifications. At one firm surveyed, the assessment of competence was incorporated into the investment manager's annual performance review. A risk with the latter approach may be that fund performance could interfere with the independence and validity of the assessment of the investment manager's expertise, in other words, good fund performance could be taken as proof of understanding derivatives.

While the firms surveyed sought to ensure they would be able to settle and monitor derivative positions, we saw no evidence of any individual approval processes for support staff, for example dealers or risk managers. Some firms did evaluate the derivatives processing staff for competence as part of their annual performance review. We also noted in some of the firms it appeared a 'key person risk' for derivatives was a member of a support or risk monitoring team.

All the firms surveyed had an approval process for derivatives use. Following approval for the initial use of a derivative, the firms then use the same process to approve additional uses either by a new investment manager or in an additional fund. This practice was formalised in nine of the 12 firms.

One concern is that the front office may push for new derivatives to be introduced, which then requires manual work-arounds in other parts of the business to process or monitor.

The third point dealt with the level of understanding at the board level of the firms surveyed and by persons who hold positions on the funds' boards, particularly non-executive directors.

The understanding of derivatives at the firms' board level was commonly described as "spotty". Boards generally acknowledged and addressed this weakness by formally delegating the responsibility for derivative oversight to a lower level committee. These derivative committees typically had knowledgeable members and

included appropriate representation from support areas, for example compliance, legal, risk and operations. As a result, board members generally received only exception reports or some semi-annual use information.

This deficit of understanding at the board level carries over to the risk information given to the directors of funds. Any risk information that is submitted focused on market risk, with other risk information included on an exception basis. Only one firm submitted counterparty risk information to its SICAV fund board.

In several instances, a third party produced the required regulatory reports on risk exposures and submitted them to the regulator. In these cases, the reports often are not reviewed, or infrequently reviewed, by the surveyed firms' staff.

The concern here is that the oversight and challenge provided by non-executive board members and external fund directors may be limited to the extent they are reliant upon the information they receive. A firm should ensure all directors have sufficient knowledge and information so that they can understand (as relevant) the fund's, or the firm's, market, counterparty and operational risks.

Additionally, boards should seek regular assurance regarding the performance of third party providers. There are two issues here – the timely performance of the activity and the quality of the service. Most of the firms surveyed had key performance indicators for performance of processes or production of reports. Less obvious was how firms ensured the quality of the reports produced was adequate. This may be accomplished in different ways – for example, occasionally duplicating the reports produced by the third party, through an internal audit visit, verification from a third party review, etc. Occasionally, the firms' risk and control documentation (e.g. SAS-70 or AAF) may cover some of the relevant actions.

The breadth and strength of the oversight structures varied greatly across the sample firms. Despite clear indications that several firms are seeking to increase derivative usage, a return to normal market conditions has already resulted in the de-prioritisation of some risk mitigation projects.

What we expect:

Documentation showing adequate knowledge of risks in both the investment and support areas.

Documentation of authorised derivative types, in which products and by which fund managers.

Front office functions should not be able to override risk and support areas regarding the processes or pricing of derivatives; therefore the front office should not have a majority of the voting power on relevant committees.

Risk information given to senior management and non-executives is not limited to exception reporting only but includes analysis of ongoing risks including counterparty and operational risks in order for these individuals to have enough information to challenge.

Identification of, and contingency planning for, key person risks in the derivatives risk oversight process.

Review or audit of derivatives processes, either individually or as a whole, incorporated into audit plan.

Regular assurance regarding the performance of third party providers; possibly through an internal audit visit, verification from a third party review or the third party's risk and control documentation (e.g. SAS-70 or AAF).

C. Counterparty risk monitoring

Counterparty exposure monitoring showed the greatest diversity of responses. These ranged from a compliance-focused exercise to a comprehensive view of this risk across the firm. In part, this reflected differing awareness levels. All firms surveyed used the Lehman bankruptcy as a ‘wake-up call’ and have moved to revisit and improve their monitoring processes. That said, the starting points were widely divergent. One firm was starting to look at counterparty risk for the first time; while at the other extreme, another firm was looking to add its insurance underwriters to their already broad monitoring of counterparty risk.

The majority of the firms surveyed used various regulatory issuer and counterparty requirements as the basis for their counterparty risk monitoring. Indeed for many, this was the extent of formal counterparty risk monitoring. Other firms have taken an expanded idea of ongoing counterparty exposures and applied this to exposures not defined as derivative exposure by some EU regulators.

For example, at the time of the survey, in some EU requirements, one of the exemptions from the monitoring requirements for counterparty exposure is exchange traded derivatives. While this is sensible for firms which are clearing members on derivatives exchanges with regard to their own positions, it is less clear that these types of trades can be considered free of counterparty risk by firms and funds which use the clearing member to hold their margin money and settle their trades.

One result of the Lehman bankruptcy was a practical lesson on the treatment of margin money. While the derivative positions Lehman held for clients were transferred to other institutions, the margin money Lehman held was frozen by the Administrator in some jurisdictions. Consequently, the funds were required to re-post margin with the new clearing member for the positions; in effect they were double margined until the funds were released from the Lehman bankruptcy process. With this as an example, the project team looked at whether the firms chose to define counterparty risk as it relates to their business model or if it was limited to the monitoring required for regulatory compliance.

Across the sample set, the following were mentioned as counterparty risks by one or more firms:

- Unrealised gains on OTC derivatives.
- Collateral given for OTC derivatives.
- Margin on exchange traded derivatives.
- Settlement value of F/X trades.
- Unrealised profits on forward F/X trades.
- Securities lending positions.
- Unsettled shares and stock trades (in two firms, unsettled delivery versus payment (DvP) trades were considered market risk).
- Failed trades.
- Cash balances.
- Commission Sharing Agreement balances held by brokers.

- Repurchase/resale trades.
- ‘Issuer risk’ exposures arising from holding the shares or bonds of a counterparty.
- Exposures from the use of derivatives on the firm’s balance sheet (e.g. to hedge seed money or expected fee income in non-base currencies).
- Exposure from the use of derivatives on the firm’s defined benefit pension scheme.
- Exposure to counterparties used to underwrite the firm’s insurance cover.

The appropriateness of including each of these may depend on the extent they are reduced by daily collateral moves and, in the case of forward F/X trades, whether they are settled gross, net or through Continuous Linked Settlement.

Firms surveyed also differed in how often they reviewed their counterparties. In some, the counterparty, once approved, stayed on the system unless removed. Most firms had, at a minimum, an annual review of the counterparty’s creditworthiness. Some firms received alert messages if there was a rating change.

Counterparties for derivatives use need to have documentation in place and so cannot be added with the same speed as DvP settlement counterparties. This documentation is an account opening form for exchange-traded derivatives and generally an ISDA Master Agreement for OTC derivatives (see also Section E – Legal documentation) .

This area showed the greatest range of monitoring and the greatest differences of approach.

What we expect:

Controls for the initial approval and ongoing review of trading counterparties.

Counterparty exposure monitoring at the fund level.

A ‘trigger’ process to actively review exposure to a particular counterparty if exposures go above the trigger level, both at fund level and across the firm.

Routine reporting of counterparty exposure across the organisation. Exposures included should reflect the business model and include mitigating factors, e.g. collateral or CLS settlement.

D. Derivative pricing

To obtain accurate net asset values (NAVs), derivatives need to be priced on the same cycle as other portfolio holdings. Exchange traded derivatives are easily priced daily. Over-the-counter (OTC) derivatives may be less easily priced depending on their complexity, product characteristics or other factors.

All of the firms surveyed had recognised the need for independent pricing procedures for derivatives. While this may include counterparty pricing as part of the process, none of the firms used counterparties, or their own front office, as the exclusive source for derivative prices. The majority of the firms had outsourced pricing to a third party, commonly the administrator, trustee, or fund accounting function. In these cases, service level agreements were in place regarding pricing procedures and the need for independent price sources. Five of the firms had in-house capabilities which produce prices independent of the front office. These were used as a check against the third party prices and occasionally as an indicator of which price to apply if multiple data sources are used. All of the firms surveyed had a formal pricing procedure in the event that usual pricing procedures fail. There was only one exception where the firm solely used exchange-traded derivatives and derivatives which are easily priced using the underlying security, for example Contracts for Difference.

In this area, all the firms in the sample had appropriate processes in place.

What we expect:

Prices provided by sources independent of the front office or OTC counterparties.

Procedure to agree OTC derivative prices if independent price sources are not available or believed to be in error.

Key performance indicators and service level agreements in place to monitor third party arrangements.

E. Legal documentation

The International Swaps and Derivatives Association (ISDA) has produced standard documentation – the ISDA Master Agreement – which can be used by all market participants when trading in these instruments. All of the firms in the survey were using ISDA Master Agreements for derivative trading and in most cases were also using a Credit Support Annex (CSA) to document acceptable types of collateral and corresponding minimum transfer amounts.

The risk is that inadequate documentation on open derivative transactions could result in collateral and legal disputes thereby exposing the funds to significant counterparty risk. All of the firms surveyed require trades done in the absence of an ISDA agreement to be pre-approved on an exception basis by senior management, and then executed using a ‘long form’ confirmation. Long forms require agreement on wording and terms and the document may not have been completed prior to the trade. The long form then needs to be confirmed and signed by the counterparty. Occasional long form trades occur at five of the firms surveyed. The reported number of long form confirmations outstanding was minimal.

The survey also sought to obtain comfort that the ISDA documents are adequately safeguarded and the current terms can be easily checked if necessary by disparate parts of the organisation. The legal department was universally the primary repository for original ISDAs but how, and whether, other parts of the firm could access and check information varied among the firms. The advantage of having one central source for ISDA data is to ensure the firm is operating with the most recent version of the negotiated terms.

Overall, the firms sampled had appropriate controls in this area.

What we expect:

Use of appropriate legal documentation, such as the ISDA Master Agreement and Credit Support Annex with counterparties of OTC derivative trades.

Safe storage for original ISDA documents with a robust retrieval process.

Process to ensure appropriate areas of the firm can readily access up-to-date information regarding the existence of, and the current terms of, ISDA documents.

F. Collateral and margin management

One characteristic of derivatives is the possible need to post margin or collateral to a counterparty as the price of the derivative changes over time, or to deliver cash or securities at maturity or if the derivative is exercised.

Exchange-traded derivatives require an initial margin and are subject to daily margin calculations. The firms in the sample did not write uncovered single stock options but many did write and purchase index options. These are cash settled and can be monitored in a similar manner to OTC options with regard to collateral requirements.

For OTC derivatives, the minimum transfer amount represents how large an exposure can be before one party can require additional collateral to be given. These terms are usually negotiated and documented in a CSA to an ISDA agreement. The amount should be proportionate to the size of the fund, in other words the fund should require collateral when the size of unrealised profit reaches a certain absolute amount or percentage of the net asset value. Counterparty risks resulting from unrealised profits on OTC derivatives were sometimes addressed by a regular monthly reset on the price of the derivative but in other cases were informally monitored. This was more of a risk at the five firms which did not accept collateral, as any unrealised profit will not be offset by collateral.

There is a separate collateral issue when a prime broker is used. If the prime broker arranges for a short position through the use of a derivative, they will have a claim against the fund for collateral on that position. The information about the assets which are used as collateral for these positions is only available from some prime brokers. As a result it was monitored to varying degrees by the firms surveyed.

The survey reviewed the types of collateral accepted and given and the minimum transfer amount. These practices reflect the level of counterparty risk the firms are willing to take on positions with unrealised profit. In general, they were conservative with the collateral they were willing to accept, limiting it to cash in major currencies and government obligations of the UK, US, and western European countries and, in the case of two of the firms, supranational agencies.

All firms surveyed which accept collateral, have a process for daily monitoring of collateral cover. This process is more structured at some firms, while portfolio managers had the daily responsibility at others. One firm had its collateral monitoring process at the Trustee. Some firms had alerts sent to portfolio managers before maturity to ensure funds could settle maturing derivative positions.

Collateral practices were, in general, good with some concerns around the monitoring of unrealised gains and prime broker collateral monitoring.

What we expect:

Firms which do not accept collateral have a process for determining when it is prudent to mitigate a large unrealised profit on an OTC derivative position.

The minimum transfer amount for a derivative exposure should be proportionate to the size of the fund and to the creditworthiness of the counterparty.

Collateral accepted is able to be easily priced and traded by the firm.

Collateral given is easily priced by the firm.

An understanding of, and regular monitoring of, the collateral used to meet a fund's obligations to a prime broker.

Next steps

This report provides useful benchmarking data as to the status of derivative risk management processes and controls in a sample of asset managers. The questions in Appendix 1 can serve as a starting point for firms or supervisors to consider derivative risks. Appendix 2 draws together what we expect to see in place for each key theme.

Appendix 1: DRMP survey questionnaire

Questions
Fund information
What are the different types of funds/accounts managed by this firm? (e.g. UCITS III, NURS, SICAV, hedge funds, pension funds, segregated accounts)
To which funds (name and type) operated by the company does the Derivative Risk Management Policy document apply? What risk management process is operated in respect of any other funds/accounts?
Oversight structure
What is the approval process for ensuring an adequate level of expertise in the staff engaged in the use of derivatives? In particular, how are fund managers evaluated for sufficient knowledge?
Who has primary responsibility for the Derivative Risk Management Policy document? How frequently is the Derivative Risk Management Policy document reviewed and updated?
Who is responsible for the initial approval of a derivative strategy or instrument in a fund?
What derivative usage information is given to external fund 'directors' and to persons with internal fund oversight responsibilities?
What parts of the oversight process were subject to an internal audit review in the past two years?
What overlap is there in the risk management function and the portfolio operating and management units? e.g. Are the CEO, CIO, COO, etc. members of risk committees, 'directors' of funds...?
Third party providers
Is part of the risk management process carried out by an entity other than the asset manager? If so, what are the escalation procedures in the event of a regulatory breach? Please include pricing done by a custodian or administrator as a third party activity.
What quality checks are used for oversight of the third party providers which produce risk reports?
Counterparty exposure
Who is accountable for counterparty risk?
What are the terms of reference and membership of any counterparty risk committee?
Does the firm use an approved list of counterparties when trading derivatives? Under what circumstances is it permissible to trade with a counterparty not on the approved list?
What exposures are included in the counterparty monitoring process (e.g. derivative exposures, cash balances, unsettled trades, portfolio holdings, etc.)?
How frequently is a counterparty exposure report produced? Are counterparty exposure limits measured pre- or post-trade?

How does the firm monitor/ensure that position (issuer concentration) risk exposures do not exceed 20% of the NAV of the fund (a regulatory requirement)?
How is firm-wide (i.e. across all funds) counterparty exposure monitored? How often?
How many breaches of counterparty risk exposure have occurred in the past year? To whom is this information reported?
Cover/ collateral
How/what monitoring is undertaken to ensure that at maturity a fund will be able to: a) meet requirements on cash settled derivatives b) meet physical delivery requirements as necessary
What types of margin/ collateral are GIVEN by the funds (e.g. cash, government securities, etc)?
What types of assets does the firm ACCEPT for the posting of collateral for OTC derivatives? Who is responsible for holding the collateral? On what frequency is the collateral marked to market?
What are the minimum collateral movement values? Where is this information documented?
Where collateral is not cash, what are minimum credit rating requirements? What requirements are there in respect of independence of collateral assets to the posting counterparty?
What restrictions apply to the investment of cash collateral and diversification therein?
How is potential future exposure calculated?
Are collateral requirement calculations determined using inputs from Potential Future Exposure?
Legal agreements
Are ISDA master agreements standards used when trading OTC derivatives?
In the event that trading occurs before the signing of ISDA documents, who is responsible for producing the documentation and ensuring that the contracts are appropriate?
What arrangements are in place for storing executed ISDA agreements? Who is responsible for them – where are they stored?
To what extent are contractual netting agreements used for OTC contracts (including FFX)? Is netting used in the usual course of business or only in the event of default?
For exchange-traded derivatives, what documentation is in place to ensure the fund has an appropriately segregated client account at the exchange member firm?
OTC pricing
From whom and at what frequency are OTC derivative valuations sourced?
What quality assurance is undertaken on the OTC pricing provided by counterparties and/or by independent financial data/valuation firms?
What is the procedure when the fund experiences difficulty pricing OTC derivatives?

Appendix 2: What we expect

This appendix collates the indicators of what we expect across the areas of focus.

DRMP documentation

Documentation showing the processes for the oversight of risk exposures across the entire business model, including activities which are outsourced.

Documentation reviewed at least annually and updated when regulations or processes change.

Oversight structure

Documentation showing adequate knowledge of risks in both the investment and support areas.

Documentation of authorised derivative types, in which products and by which fund managers.

Front office functions should not be able to override risk and support areas regarding the processes or pricing of derivatives; therefore the front office should not have a majority of the voting power on relevant committees.

Risk information given to senior management and non-executives is not limited to exception reporting only but includes analysis of ongoing risks including counterparty and operational risks in order for these individuals to have enough information to challenge.

Identification of and contingency planning for key person risks in the derivatives risk oversight process.

Review or audit of derivatives processes, either individually or as a whole, incorporated into audit plan.

Regular assurance regarding the performance of third party providers, possibly through an internal audit visit, verification from a third party review or the third party's risk and control documentation (e.g. SAS-70 or AAF).

Counterparty risk monitoring

Controls for the initial approval and ongoing review of trading counterparties.

Counterparty exposure monitoring at the fund level.

A 'trigger' process to actively review exposure to a particular counterparty if exposures go above the trigger level, both at fund level and across the firm.

Routine reporting of counterparty exposure across the organisation. Exposures included should reflect the business model and include mitigating factors, e.g. collateral or CLS settlement.

Derivative pricing

Prices provided by sources independent of the front office or OTC counterparties.

Procedure to agree OTC derivative prices if independent price sources are not available or believed to be in error.

Key performance indicators and service level agreements in place to monitor third party arrangements.

Legal documentation

Use of appropriate legal documentation, such as the ISDA Master Agreement and Credit Support Annex with counterparties of OTC derivative trades.

Safe storage for original ISDA documents with a robust retrieval process.

Process to ensure appropriate areas of the firm can readily access up-to-date information regarding the existence of, and the current terms of, ISDA documents.

Collateral and margin management

Firms which do not accept collateral have a process for determining when it is prudent to mitigate a large unrealised profit on an OTC derivative position.

The minimum transfer amount for a derivative exposure should be proportionate to the size of the fund and to the creditworthiness of the counterparty.

Collateral accepted is able to be easily priced and traded by the firm.

Collateral given is easily priced by the firm.

An understanding of, and regular monitoring of, the collateral used to meet a fund's obligations to a prime broker.