



# Open Protocol Enabling Risk Aggregation

**OPEN PROTOCOL I**

REVISED  
**MANUAL**

October 2011

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## Introduction

The main objective of Open Protocol Enabling Risk Aggregation is to provide standardised procedures for the calculation, conveyance, collection and collation of financial risk information. The protocol will serve a dual role of providing more detailed explanation of various exposures in a fund and to enable consistent aggregation of exposures across funds.

Where possible we have followed the principles listed below:

- **Objective:** Protocols avoid subjective areas and, where possible, provide enough details on methodology to ensure objective calculations.
- **Simple:** Protocols are easy to implement and do not require expensive risk systems to generate.
- **Flexible:** Protocols are flexible, in order to incorporate potential innovations in financial markets.
- **Compatible:** Protocols have incorporated existing standards where available.
- **Comprehensive:** Protocols contain multiple risk analytics to ensure that both investors and regulators are satisfactorily covered.
- **Applicable:** Protocols are designed to be applicable to different types of funds, including mutual funds, venture and private funds, separate accounts, and hedge funds.

The protocol can be broken down into three sub parts:

- **Templates:** These list the different metrics that managers would be required to produce. Once the working group finalise the templates it will define two separate reporting formats; one would be reader friendly (PDF/excel) and the other would be computer friendly (XML).  
To avoid confusion every cell is identified by a unique reference number. Please refer to Appendix A for more information.
- **Grades:** Under certain circumstances, like investments in illiquid markets or proprietary trade ideas, managers could feel uncomfortable providing highly granular information. We have defined different levels of “Grades” to help managers to provide less granular but consistent information without compromising the trade in the market. Grades are defined for each metric and asset class. We have defined three levels of grades. In the template Grade I (low granularity) is represented by three digits (e.g. 1.1.1), Grade II (medium granularity) by four digits (e.g. 1.1.1.1) and Grade III (high granularity) by 5 digits (e.g. 1.1.1.1.1).  
Managers are expected to provide all information of Grade 1 without exception. It is then at the discretion of the Manager and Client in the relationship to establish information provided in Grade 2 and Grade 3. Managers can choose to provide different Grades of information across different sections or in the same section. For example, provide Grade 1 information for “Fund and Investor Details” and Grade 2 for “Equity Sector Exposure” and Grade 3 for “Equity Regional Exposure
- **Manual** (this document): The manual lists the general principles and structure of the protocols. It provides detailed explanations and formulae for every metric and cell identified in the template. This document has the same structure as the template and follows the same numbering mechanism described under templates and grades.

There are 12 sections in the template:

- Section 1 relates to overall manager and fund information.
- Sections 2 to 7 relate to different asset classes; Equity, Sovereign Interest Rates, Credit, Convertible bonds, Currencies and Commodities & Real Assets.
- Sections 8 to 10 cover overall portfolio level risk metrics like Value at Risk, Sensitivities and Stress Tests.
- Section 11 covers counter party risk.
- Section 12 titled “Other” is for exposures not covered above.

All managers would be required to fill sections 1, 8, 9, 10, 11 and at least one of section 2 to 7. If a manager trades more than one asset class (even if it were a hedge) then they should fill out all the relevant asset class sections. Reporting should be focused on the asset classes traded and not the strategy. For example, a fund following a convertible arbitrage strategy (long convertible bonds and short equities), should report long convertible bond exposure under the “5. Convertible Bond Exposure” Template section and short equity exposure under the “2. Equity Exposure” Template section.

## General Points:

The General Points section of the manual refers to multiple sections in the manual and template. It is meant to give guidance in one place that would otherwise be repeated. The FSA Questionnaire referred to is the FSA Hedge Fund Survey dated September 2010.

### DO NOT CHANGE, DELETE OR AMEND ANY SECTION HEADING IN THE TEMPLATE.

**GP 1) Fund Reporting Level:** All exposure, AUM and performance information should be at the fund level. Under certain circumstances if the fund has multiple share classes (e.g. Onshore/Offshore share class), with differing exposures, then the manager can choose to provide exposure information at a share class level. However the manager should ensure that the most representative (e.g. largest AUM) share class is selected.

**GP 2) Reporting Trading Day:** Last market price of last trading day of the month and the actual portfolio positions as of the end of the month should be used to calculate exposure information.

**GP 3) Reporting Currency:** All exposure information should be reported in USD. Non USD exposure should be converted to USD using the exchange rate as of the last trading day of the month, and the resulting currency exposure shown under currency section.

**GP 4) AUM Reporting:** Please report total Assets under Management (AUM) in USD. Include any fees already earned by the manager but not removed from the fund (Deferred fees).

AUM can be calculated using any of the following three methods and example:

For December 2010 report we have following information:

AUM on 1st Dec 2010: \$2,000,000

Performance for month of December: \$200,000

Redemption for 31st December 2010: \$500,000

Subscription for 1st Jan 2011: \$1,000,000

1) GAAP Definition:

AUM should be reported, accounting for redemptions scheduled for the end of the subject month, but not subscriptions scheduled for the first day of the month following the subject month. For example, AUM for the month of December 2011 should be: AUM at 1st December 2011, plus or minus performance for the month of December, less redemptions (reduction in exposure not necessarily actual cash movement) effective as of 31st December 2011. It should not include any subscription effective 1st Jan 2012.

AUM for 31st December 2010=  $2,000,000 + 200,000 - 500,000 = \$1,700,000$

2) Backward looking:

AUM should be reported, without accounting for redemptions scheduled for the end of the subject month nor subscriptions scheduled for the first day of the month following the subject month. For example, AUM for the month of December 2011 should be: AUM at 1st December 2011, plus or minus performance for the month of December.

AUM for 31st December 2010=  $2,000,000 + 200,000 = \$2,200,000$

3) Forward Looking:

AUM should be reported, accounting for redemptions scheduled for the end of the subject month and subscriptions scheduled for the first day of the month following the subject month. For example, AUM for the month of December 2011 should be: AUM at 1st December 2011, plus or minus performance

for the month of December, less redemptions (reduction in exposure not necessarily actual cash movement) effective as of 31st December 2011 plus any subscription effective 1st Jan 2012.

AUM for 31st December 2010 = 2,000,000 + 200,000 – 500,000 + 1,000,000 = \$2,700,000

**GP 5) Total Exposure:** Total exposure of portfolio to each asset class should be shown at the top of that asset class's exposure page as total dollar value under "Total Exposure to...". Total Exposure should reflect summation of the exposure value of all the investments as of the Reporting Trading Day (see 1.2). Please see section GP 15 for reporting exposure for Options.

For example, under Total Exposure to Equities (2.1 and 2.2), 2.1.1 should contain non netted sum of long equity exposures and 2.1.2 sum of short equity exposures shown in USD. 2.1.3 and 2.1.4 should contain long and short exposures but on a netted basis. See GP 14 for information on Netting.

For 2.2.1, 2.2.2, 2.2.3 and 2.2.4 report the same numbers but as a percentage of total AUM (see GP 4).

**GP 6) Exposure Reporting:** Exposure should be reported as a percentage of total fund AUM (see note GP 4).

As a principle, report full economic exposure of the long and short positions separately on a non netted basis (see note GP 14). Managers have the option to ALSO report netted long and short exposures in the columns provided.

As defined in the FSA Questionnaire, note 22: "For most items, please give a value for long and short positions to include all exposure whether held physically, synthetically or through derivatives (in which case, total notional value of futures and delta adjusted notional value of options)."

Refer to Appendix I for details on calculating exposures for different instruments.

**GP 7) Aggregate Number of positions:** The total number of long and short positions for each asset class (except Credit and Convertible bonds (see note GP 8)) should be shown at the top of that asset class's exposure page under Aggregate Number of Positions. Number of positions in the columns can be aggregated and netted (see note GP 14).

**GP 8) Number of Parent Issuers:** In the Credit and Convertible Bond exposure templates, number of parent company issuers should be provided instead of number of positions (4.3.1 and 4.3.2). At the portfolio level please provide only unique issuers and note that this might result in overall portfolio level numbers being less than the sum of issuers provided in the breakdown.

**GP 9) Values:** The column titled "Values" should be used to report information on certain risk metrics which are not related to nor reflect exposure information. For example "Portfolio Average Maturity" under the Convertible bonds section (5.9.1) should be used to show the average maturity of all the convertible bonds in the portfolio. Where applicable (i.e. for long and short positions) this should be a netted (i.e. long minus short) number.

**GP 10) Existing standards used:** For the following metrics we have used existing standards.

**GP 10.1) Sectors:** GICS® breakdown. See Appendix D for breakdown. We have added three Grade 1 items to the GICS® list, which are:

**Conglomerates:** Report investments in companies where sector information is not available from a publicly available database and are difficult to classify into a single sector.

**Broad Market Indices:** Report investment in an index which does not have single sector focus. For example investment in a position with the underlying of the S&P 500 index would be classified in this section.

**Other:** Any investment which cannot be classified under any of the classifications above should be reported here.

**GP 10.2) Credit rating:** Standard & Poor's Rating. See Appendix E for breakdown.

If you do not use S&P ratings in your normal investing process, then for the purpose of reporting exposure, please map the rating from the provider you do use, such as Moody's or Fitch, to the nearest S&P rating. If ratings are available from multiple sources, and you have access to these ratings, then use the rating by the provider with the lowest rating.

Appendix E, Table 2, provides guidance on mapping ratings from Moody's and Fitch to S&P.

**GP 11) Regions:** for full breakdown see Appendix F. Regions are broken down into three grades:

**GP 11.1)** Grade 1: 3 Continents, plus "Global" and "Other"

**GP 11.2)** Grade 2: 2 Economic regions (Advanced and Developing economies as defined by IMF)

**GP 11.3)** Grade 3: Individual Countries

**GP 11.4)** "Other" under each grade should be used for exposure across multiple areas in that grade. For example, if you are reporting at Grade 1 level, an investment in EMEA through an index would appear under "Other".

**GP 11.5)** Where available and possible please use the regional exposure for instruments as defined by publicly available databases like Thomson Reuters and Bloomberg.

**GP 11.6)** For listed products, regional exposure should be determined by the country of primary listing. For sovereign interest rates please use regions of the primary issuing country.

**GP 11.7)** Investments in securities like commodities or Global indices, which do not have an easily identifiable region, should be shown under Global.

**GP 11.8)** For credit investments please use the listing geography of issuers' equity or, in absence, their domicile.

**GP 11.9)** For instruments where regions are not clearly identifiable use your discretion but please ensure that you capture the inherent market risk. For example, an investment ADR of Company A listed primarily in region X should be considered under region X and not USA.

**GP 12) Market Capitalisation:** The size of the companies invested in should be classified using the guide below. Size should be measured as the current market price multiplied by the total number of shares outstanding. For classification purposes, the size of non-USD denominated companies (Non-USD) should be converted into USD using the exchange rate as of the last trading day of the month.

Mega Cap :More than \$25 billion

Large Cap: More than \$10 billion to less than or equal to \$25 billion

Mid cap: More than \$2 billion to less than or equal to \$10 billion

Small cap: More than \$250 million to less than or equal to \$2 billion

Micro cap: Less than or equal to \$250 million

**GP 13) Liquidity:** For calculating liquidity, exposure should be broken down into exchange traded and non exchange traded. For exchange traded products use the methodology described below to calculate liquidity. For Non exchange traded and Private investments we could not identify any objective way of calculating liquidity and therefore no additional details are required.

**GP 13.1) Exchange Traded:**

Report percentage of the total investments in exchange traded products (assuming that you will not trade more than 15% of average daily trading volume over last 60 business days) that can liquidated in:

Less than or equal to 1 week

Less than or equal to 1 day

1 to 5 days (More than 1 day to Less than or equal to 1 week)

More than 1 Week to less than or equal to 1 Month

6 to 10 days (More than 1 to less than or equal to 2 weeks)

11 to 20 days (More than 2 weeks to less than or equal to 1 month)

More than 1 Month to less than or equal to 6 Months

21 to 60 days (More than 1 month to less than or equal to 3 months)  
61 days to 120 (More than 3 months to less than or equal to 6 months)  
More than 6 months to less than or equal to 1 Year  
More than 1 Year to less than or equal to 3 Years  
More than 3 Years

**GP 13.2) Non Exchange Traded:** Report percentage of total investments in non exchange traded securities.

**GP 13.3) Private:** Report percentage of total investments in privately held securities.

#### **GP 14) Netting**

**GP 14.1) Netting of Position Exposure:** Generally values of all open exposures should be reported on a gross basis under the long and short, Non Netted columns.

Under special circumstances managers can net some exposures in columns designated as Non Netted. If exposures have the same but offsetting (long and short position) risk then they could net. For example if a manager trading sovereign rates has a long and short position in two securities with the same maturity, instrument and counterparty, then this exposure could be reported on a netted basis. However, a long equity position combined with a short CFD position referencing the same equity should not be netted in the Non Netted column as it is not with the same counterparty.

If there is a doubt please report gross long and gross short values.

Managers can net exposures as they deem appropriate under the long and short columns designated Netted exposure. Providing netted exposure information is optional for the manager, they can provide this information if they believe that “Non Netted” exposure, which they have provided above, is misleading.

**GP 14.2) Netting of Position Counts:** Counts of all positions should be reported on an aggregated and netted basis under the long and short columns.

Therefore, it is expected that a position that is “closed” through an offsetting trade will show as zero in a position count, zero in the Netted position exposure column and non-zero in a Non Netted position exposure column.

**GP 15) Exposure Reporting for Derivatives:** Options (non linear instruments) should be reported on a delta-adjusted notional exposure basis. Other linear derivatives like futures and forwards should be reported on a notional exposure basis.

Long and short exposure for derivatives should be determined by their relationship to the underlying security. For example, a long call option should be reported under “Long Exposure” while a long put option should be reported under “Short Exposure”.

Refer to Appendix I for details on calculating exposures for different instruments.

**GP 16) Exposure Reporting for Sovereign and Interest Rate:** All sovereign interest exposure (Section 3) should be reported as US 10 year swap equivalent using the following formula:

Step 1) Take pv01 of the positions (or aggregated group)

Step 2) If non USD, then convert the value under Step 1 to USD otherwise just consider the value under Step 1



Step 3) Calculate the USD dv01 of receiving fixed on USD 1 of notional of a 10y swap

Step 4) Divide value in Step 2 by that in Step 3

**GP 17) Exposure Reporting for Credit sensitive instruments:** All credit instrument exposure (section 4) should be reported on a bond equivalent market value basis. CDS exposures, both long and short, should also be reported on a bond equivalent basis. If for some reason identifying an equivalent bond is not feasible then report the notional exposure.

**GP 18) Reporting figures and Rounding:** All dollar amounts, like AUM and total exposure, should be rounded to the nearest integer. All other values including percentages should be rounded to one decimal place (unless otherwise stated). Please round half up (any value above or equal to 5 should be rounded up, else round down).

**GP 19) Side Pockets:** Exposure from investments under side pockets are investor specific and should not be considered while creating this report. Side pockets are only considered under Section 2.8.5, and here total gross exposure (do not net long and short exposure) under side pockets as percentage of funds' assets under management should be shown.

Investments under side pockets should be fairly valued. Valuation for listed securities should be at least daily, while non listed illiquid investments should be valued at least annually, with quarterly being preferred.

**GP 20) Comments:** We have tried to closely define all the metrics as fairly as possible however the rules could result in a misleading number in which case you can use this section to make a comment about your concerns. You can also use this section if you have used a different definition to the one provided in the manual or template. Any footnotes or explanation can be entered here. State the specific reference number and the comment.

**GP 21) Disclaimer:** Templates contain a tab called "Manager Disclaimer" and is left blank. Managers could use this section to insert their own disclaimer if they like and also use this section for any other comments.

## 1. Fund and Investor Details:

**1.1. Fund Name and Date:** Report the name of the fund and the last day of the month (DD-MMM-YY) to which the report corresponds.

**1.2. Manager Details:** This section should be used to provide information about the investment management company (Advisory Firm) which is responsible for running the fund.

### 1.2.1. Investment Manager Name

### 1.2.2. Total Firm Assets Under Management: (see note GP 4)

Total Assets under management for the investment manager, including deferred fees in USD.

Please provide total assets under various fund structures:

- 1.2.2.1. Private Funds (Performance fees):** Private funds which charge performance fees under normal circumstances.
- 1.2.2.2. Private Funds (No Performance fees):** Private funds which do not charge performance fees. Mutual funds would be included in this section,
- 1.2.2.3. Non Private Funds:** Non Private funds (Mutual funds etc.) should be included here.
- 1.2.2.4. UCITS Funds (Performance fees):** A UCITS fund is, as defined in the FSA Questionnaire, "a collective investment scheme/undertaking which requires authorization pursuant to the UCITS Directive." This section is applicable for UCITS funds that charge performance fees under normal circumstances.
- 1.2.2.5. UCITS Funds (No Performance fees):** A UCITS fund is, as defined in the FSA Questionnaire, "a collective investment scheme/undertaking which requires authorization pursuant to the UCITS Directive." This section is applicable for UCITS funds that do not charge performance fees.
- 1.2.2.6. Managed Accounts:** Segregated portfolios or funds which generally replicate a private fund as much as possible for the benefit of a specific investor or investors.
- 1.2.2.7. Real Estate Funds:** Private funds that primarily invest in real estate and/or real estate related assets.
- 1.2.2.8. Private Equity Fund:** Closed end private fund which invests in non-publicly traded assets and where the investor has no discretionary redemption rights.
- 1.2.2.9. Liquidity Fund:** Liquidity funds are, as defined by SEC, any private fund that seek to generate income by investing in a portfolio of short term obligations in order to maintain a stable net asset value per unit or minimize principal volatility for investors
- 1.2.2.10. Other:** Any assets under management in the firm not included in sections 1.2.2.1 to 1.2.2.9 above

**1.3. Fund AUM Details:** This section should be used to provide information about the fund under consideration.

**1.3.1. Total Assets under Management:** (see note GP 4) Total assets under management in the entire fund and all other structures following the same investment strategy, including deferred fees, in USD.

**1.3.2. Method used to calculate AUM:** (See note GP 4) Choose from the drop down box one of three options. GAAP, Backward Looking and Forward Looking.

- 1.3.2.1. Redemptions:** Redemptions effective as of the last day of the current month
- 1.3.2.2. Subscriptions:** Subscriptions effective from 1<sup>st</sup> day of the next month
- 1.3.2.3. Funds:** Total assets under management only in the fund(s). Include all share classes. Consider any redemption effective end of the month but do not consider any subscription for beginning of next month.
- 1.3.2.4. Managed Accounts:** Total assets under management in all managed accounts following the same or similar strategy as the reported fund.

- 1.3.2.5. Other:** Any assets under management in the fund being reported which are not included in sections 1.3.2.3 to 1.3.2.4 above. Other also includes advisory business and portfolio management for portfolios run similarly to the fund being reported.

**1.4. Primary Investment Strategy:**

This section should be used to describe the investment strategy followed by the fund.

- 1.4.1. Investment Strategy:** Please refer to Appendix B for a list investment strategies  
**1.4.2. Asset Class:** Please refer to Appendix B for a list of asset classes  
**1.4.3. Instruments:** Please refer to Appendix B for a list of broad instruments  
**1.4.4. Investment Style:** Please refer to Appendix B for a list of investment styles  
**1.4.5. Trading Strategy:** Please refer to Appendix B for a list of trading strategies  
**1.4.6. Market Exposure:** Please refer to Appendix B for a list of market exposures  
**1.4.7. Holding Period:** Please refer to Appendix B for a list of holding periods

**1.5. Reporting Share Class (RSC):** (See note GP 1)

This section is applicable only if a manager chooses to report at the share class level rather than the fund level. The reporting share class should be most representative share class if the fund has multiple share classes. If this section is filled in then information in the report will be assumed to be at the RSC level.

- 1.5.1. Total Investment in the RSC:** Total assets under management in the reporting share class, including deferred fees in USD.
- 1.5.2. % of total fund AUM in RSC:** Percentage of total fund AUM in the share class on which the information in the report is based
- 1.5.3. Currency:** If the official currency of the RSC is not USD, please fill in the official currency here. All AUM and exposure information should be reported in USD, see note GP 3.
- 1.5.4. Inception date of the RSC:** Inception date for reporting share class
- 1.5.5. Management Fee of RSC:** Percentage management fee charged on reporting share class. Use as many decimal places as required.
- 1.5.6. Performance Fee to RSC:** Percentage performance fees charged on reporting share class. Use as many decimal places as required.

**1.6. Performance:** see note GP 1 regarding whether to report performance for fund or reporting share class.

Report best available estimate if the performance is not finalised.

**Gross Performance:** performance gross of management and performance fees and other expenses. Performance should be rounded to two decimal places (round half up).

- 1.6.1. Month:** gross performance for the month (non annualized)  
**1.6.2. QTD:** gross performance for the quarter to date, the quarters being January to March, April to June, July to September and October to December (non annualized)  
**1.6.3. YTD:** gross performance for the calendar year to date (non annualized)  
**1.6.4. ITD:** gross performance from the fund/RSC since inception to date (non annualized if inception is less than 12 months ago, annualized if inception was more than 12 months ago)

**Net Performance:** performance net of management and performance fees and other expenses. Performance should be rounded to two decimal places (round half up).

- 1.6.5. Month:** net performance for the month (non annualized)

**1.6.6. QTD:** net performance for the quarter to date, the quarters being January to March, April to June, July to September and October to December (non annualized)

**1.6.7. YTD:** net performance for the calendar year to date (non annualized)

**1.6.8. ITD:** net performance from the fund/RSC since inception to date (non annualized if inception is less than 12 months ago, annualized if inception was more than 12 months ago).

**High Water Mark**

**1.6.9.** Is majority of fund or reporting share class above the HWM in the reporting month..

**1.7. Investor Break Down:**

Report the values as a percentage of total AUM and actual USD amount.

**1.7.1. Top 5 Largest Investors:** Percentage of total fund AUM held by the 5 largest investors

**1.7.1.1. Largest Investor:** Percentage of total fund AUM held by the largest investor.

**Investor Type (by % and Amount):** This should be the breakdown of AUM by investor type as defined by the investors themselves or deemed most appropriate by the manager.

**1.7.2. Individuals:** Total AUM held by individuals like Partners, Employees and High Net Worth Individuals.

**1.7.2.1. Partners and Employees:** as the FSA Questionnaire states in note 17, "include all types of staff of the investment manager and/or sub-managers. Do not include investments by related corporate entities including financial institutions. Include investments through the pension plans/funds of the staff." Also include here any deferred fees if still invested in the fund.

**1.7.2.2. High Net Worth Individuals:** as the FSA Questionnaire states in note 17,"do not include any investments by (Partners and Employees). Include HNW that invest into the fund via platforms and intermediaries where known."

**1.7.2.3. Family office:** include both, single or multi family offices in this section.

**1.7.2.4. Retail Investors:** Include any investments from individuals which do not qualify for "High Net Worth Individuals" status.

**1.7.3. Institutional:** Total AUM held by institutions like Government entities, Pension Plans and Endowments/Foundations.

**1.7.3.1. Government entities:** as the FSA Questionnaire states in note 17, "include any state pension plans/funds in this category."

**1.7.3.2. Pension plans/funds:** as the FSA Questionnaire states in note 17, "do not include state or government pension plans/funds, and do not include pension plans/funds by Partners and Employees."

**1.7.3.3. Endowments/foundations and other charitable organizations:** as the FSA Questionnaire states in note 17, "include investments by endowments, foundations and charitable organizations".

**1.7.3.4. Sovereign Wealth Funds**

**1.7.4. Intermediaries:** Total AUM held by financial intermediaries like Banks, Fund of Funds and Private banks.

**1.7.4.1. Banks and Insurance companies:** as the FSA Questionnaire states in note 17, "refers to balance sheet exposures by these entities to the fund".

**1.7.4.2. Other Investment Funds:** as the FSA Questionnaire states in note 17, "Include investments by Fund of funds and other investment funds".

**1.7.4.3. Private Banks:** Where possible, allocate exposures that are organized through private banks to the underlying source (e.g. to HNW if applicable). Only report investments here if it is not possible to allocate or identify the underlying source.

**1.7.5. Other/Unknown:** Include any source not covered above or if the source is unknown or unidentifiable.

**1.8. Investor Liquidity:** Breakdown of the AUM by liquidity of the investor. This should be based on when an investor would be able to redeem (cease having exposure in the fund), both with and without penalty, within different periods. For example, if a hard lockup has 3 months until expiration, the assets would appear under the 3 months row, “without penalty”. For a soft lockup they would appear under the “with penalty” column, this column would be empty if the fund does not have any investors with early redemption penalties.

For this section assume Gates are imposed where applicable. Without Penalty column should sum to 100%, but With Penalty column need not sum to 100%.

**1.8.1.** Less than or equal to 3 Months

**1.8.2.** Less than or equal to 12 months

**1.8.3.** Less than or equal to 36 months

**1.8.4.** More than 36 months

**1.8.5.** Side Pockets: assume all assets held under side pockets to be “Without penalty”. (see note GP 19)

**1.9. Unencumbered cash:** Report percentage of total AUM held in unencumbered cash. Unencumbered cash is defined, by FSA Questionnaire, as “the fund’s ‘cash’ minus the sum of the following:

- cash transferred to a collateral taker pursuant to a title transfer arrangement;
- cash covered by security arrangements requiring another party’s consent prior to use by hedge fund manager (this could include fixed charges);
- cash the subject of a floating charge to the extent and in the amount that borrowings from the relevant lender exceed collateral otherwise provided to that lender (so, for example, where you owe \$200m to Bank A, \$100m which is subject to a fixed charge and Bank A also has a floating charge against you relating to all monies owed, \$100m of cash would be subject to the fixed charge and \$100m of cash would be subject to the floating charge for the purposes of the survey);
- any balances on derivative transactions between you and third parties which are the subject of collateral arrangements (including undrawn amounts).”

**1.10. Investment in External Funds:**

If the fund has made investments in external funds (include funds run by the same manager), and exposure of those funds is not included in this report, then report percentage of total AUM in external funds broken down by the main motivation in this section.

**1.10.1.** For cash management purposes (e.g. money market funds)

**1.10.2.** For non cash management (i.e. investment) purposes.

**1.11. Report Generated By:**

Name of the entity (manager, administrator, risk systems etc.) that generated the report.

**1.12. Report Generation Date:**

Date (DD-MMM-YY) when the report was generated.

**1.13. Comments see note GP 20**

## 2. Equity Exposure:

- Report all exposures arising from trading of equities (physically, synthetically or through derivatives) in this section.
- Dividend and equity variance swaps and options should also be included in this category.
- The above exposures should be entered here as a percentage of AUM (see note GP 6), except where specified otherwise.

**2.1. Total exposure to Equities:** see note GP 5

**2.2. Percentage of Portfolio:** see note GP 5 and GP 6

**2.3. Aggregate number of positions:** see note GP 7

**2.4. Sectors:** See note GP 10.1

**2.5. Regions:** see note GP 11

### 2.6. Instruments:

- Equity baskets should be broken down into individual equities and exposure information provided under Equity (single stock).
- Refer to Appendix I for methodology to calculate exposure for each instrument.
- Report the exposure as a percentage of total AUM by instruments.

#### 2.6.1. Equity (single stock):

2.6.1.1. Common Equity

2.6.1.2. Preferred Equity

2.6.1.3. Swaps: Report the side linked to the performance of equities. If both sides are linked to equities than report one as long and other as short.

2.6.1.4. CFD

2.6.1.5. ADR/GDR

2.6.1.6. Futures

2.6.1.7. Forwards

2.6.1.8. Variance Swaps

2.6.1.9. Dividend Swaps

2.6.1.10. Options (Delta Adjusted):

2.6.1.10.1. Delta Call Adjusted Exposure

2.6.1.10.2. Delta Put Adjusted Exposure

#### 2.6.2. Equity Indices:

2.6.2.1. Swaps

2.6.2.2. ETF

2.6.2.3. CFD

2.6.2.4. Futures

2.6.2.5. Forwards

2.6.2.6. Variance Swaps

2.6.2.7. Dividend Swaps: should be reported as Notional x Dividend Yield

2.6.2.8. Options (Delta Adjusted):

2.6.2.8.1. Delta Call Adjusted Exposure

2.6.2.8.2. Delta Put Adjusted Exposure

#### 2.6.3. Non listed:

2.6.3.1. Private

2.6.3.2. PIPE

2.6.3.3. Partnerships

2.6.3.4. Restricted Securities

#### **2.6.4. Other**

Derivatives where the underlying is equity volatility, like VXX, should be reported here.

**2.7. Market Cap:** see note GP 12

**2.8. Liquidity:** see note GP 13

**2.9. Comments:** see note GP 20



### 3. Sovereign and Interest Rate Exposure:

- Report all exposures arising from trading of sovereign interest rate and debt products (physically, synthetically or through derivatives) in this section.
- 10-year US swap equivalent exposures should be reported (see note GP 16), as a percentage of AUM (see note GP 6).

**3.1. Total Investments in Sovereign and Interest Rate:** see note GP 5.

**3.2. Percentage of Portfolio:** see note GP 5 and GP 6

**3.3. Aggregate number of positions:** see note GP 7

**3.4. Regions:** (see note GP 11). In Grade 3 under Europe/ Advanced Economies, we have “Euro” as a separate node for Euro denominated sovereign debt.

#### 3.5. Instruments by Maturity:

- Zero coupon bonds and coupon STRIPS should be included here using 10-year equivalent exposures (in the relevant Maturity breakdown).
- Maturity should be calculated from portfolio date to position end maturity date and not at time of issue.

##### 3.5.1. Less than or equal to 1 year:

- 3.5.1.1. Cash Note
  - 3.5.1.1.1. Fixed Rate
  - 3.5.1.1.2. Floating Rate
  - 3.5.1.1.3. Options (Delta Adjusted)
- 3.5.1.2. Fixed Income Swaps
  - 3.5.1.2.1. Interest Rate Swaps
  - 3.5.1.2.2. Basis Swaps
  - 3.5.1.2.3. Swaptions and Options (Delta Adjusted)
- 3.5.1.3. Fixed Income Futures
  - 3.5.1.3.1. Bond Futures
  - 3.5.1.3.2. Interest Rate Futures
  - 3.5.1.3.3. Options (Delta Adjusted)
- 3.5.1.4. ETF
  - 3.5.1.4.1. Fixed Rate
  - 3.5.1.4.2. Floating Rate
  - 3.5.1.4.3. Options (Delta Adjusted)
- 3.5.1.5. Sovereign CDS:
  - 3.5.1.5.1. North America (Advanced Economies)
  - 3.5.1.5.2. North America (Developing Economies)
  - 3.5.1.5.3. Europe (Advanced Economies)
  - 3.5.1.5.4. Europe (Developing Economies)
  - 3.5.1.5.5. Asia and Oceania (Advanced Economies)
  - 3.5.1.5.6. Asia and Oceania (Developing Economies)
  - 3.5.1.5.7. South America and Africa (Advanced Economies)
  - 3.5.1.5.8. South America and Africa (Advanced Economies)
  - 3.5.1.5.9. Other (Advanced Economies)
  - 3.5.1.5.10. Other (Developing Economies)
- 3.5.1.6. Supranational Bonds
- 3.5.1.7. Other

**3.5.2. More than 1 year to less than or equal to 5 years:** see breakdown for note 3.5.1

**3.5.3. More than 5 years to less than or equal to 10 years:** see breakdown for note 3.5.1

**3.5.4. More than 10 years:** see breakdown for note 3.5.1

**3.6. Credit Rating:** see note GP 10.2

**3.7. Liquidity:** see note GP 13

**3.8. Comments:** see note GP 20

#### **4. Credit (excluding Convertible Bonds) Exposure:**

- Report all exposures arising from trading of non sovereign credit sensitive interest rate and debt products (physically, synthetically or through derivatives). Please exclude convertible bonds from this section.
- Bond equivalent exposure, as a percentage of AUM (see note GP 6) should be entered here, except where specified otherwise. See note GP 17 for more information.

**4.1. Total exposure to Credit (excluding Convertible bonds):** see note GP 5.

**4.2. Percentage of Portfolio:** see note GP 5 and GP 6

**4.3. Aggregate number of Parent Issuers:** sum of parent company issuers see note GP 8

**4.4. Sectors:** See note GP 10.1

- Municipal Bonds should be entered under "Other".
- Investments for which Sector breakdown is difficult to calculate or is unclear should be included under "Other".

**4.5. Regions:** see note GP 11

**4.6. Credit Type:**

##### **4.6.1. Corporate Debt (Single Name)**

- 4.6.1.1. Bank Debt**
- 4.6.1.2. Senior Secured Debt**
- 4.6.1.3. Senior Unsecured Debt**
- 4.6.1.4. Trade Claims**
- 4.6.1.5. Subordinated Debt**
- 4.6.1.6. Other**

##### **4.6.2. Corporate Debt (Indices/Pooled products)**

- 4.6.2.1. Bank Debt**
- 4.6.2.2. Senior Secured Debt**
- 4.6.2.3. Senior Unsecured Debt**
- 4.6.2.4. Trade Claims**
- 4.6.2.5. Subordinated Debt**
- 4.6.2.6. Other**

##### **4.6.3. Mortgages (Indices/Pooled products)**

- 4.6.3.1. Residential Mortgage Backed Securities Agency**
- 4.6.3.2. Residential Mortgage Backed Securities Non Agency**
- 4.6.3.3. Commercial Mortgage Backed Securities Non Agency**
- 4.6.3.4. Other**

##### **4.6.4. Other Securitised Assets (Single name/Indices/Pooled products)**

- 4.6.4.1. Automobiles**
- 4.6.4.2. Credit Card Receivables**
- 4.6.4.3. Equipment Finance**
- 4.6.4.4. Housing**
- 4.6.4.5. Project/Infrastructure Finance**
- 4.6.4.6. Speciality Finance**
- 4.6.4.7. Other**

##### **4.6.5. Municipal Bonds**

- 4.6.5.1. Non US State**
- 4.6.5.2. Alabama**
- 4.6.5.3. Alaska**
- 4.6.5.4. Arizona**

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- 4.6.5.5. Arkansas
  - 4.6.5.6. California
  - 4.6.5.7. Colorado
  - 4.6.5.8. Connecticut
  - 4.6.5.9. Delaware
  - 4.6.5.10. Florida
  - 4.6.5.11. Georgia
  - 4.6.5.12. Hawaii
  - 4.6.5.13. Idaho
  - 4.6.5.14. Illinois
  - 4.6.5.15. Indiana
  - 4.6.5.16. Iowa
  - 4.6.5.17. Kansas
  - 4.6.5.18. Kentucky
  - 4.6.5.19. Louisiana
  - 4.6.5.20. Maine
  - 4.6.5.21. Maryland
  - 4.6.5.22. Massachusetts
  - 4.6.5.23. Michigan
  - 4.6.5.24. Minnesota
  - 4.6.5.25. Mississippi
  - 4.6.5.26. Missouri
  - 4.6.5.27. Montana
  - 4.6.5.28. Nebraska
  - 4.6.5.29. Nevada
  - 4.6.5.30. New Hampshire
  - 4.6.5.31. New Jersey
  - 4.6.5.32. New Mexico
  - 4.6.5.33. New York
  - 4.6.5.34. North Carolina
  - 4.6.5.35. North Dakota
  - 4.6.5.36. Ohio
  - 4.6.5.37. Oklahoma
  - 4.6.5.38. Oregon
  - 4.6.5.39. Pennsylvania
  - 4.6.5.40. Rhode Island
  - 4.6.5.41. South Carolina
  - 4.6.5.42. South Dakota
  - 4.6.5.43. Tennessee
  - 4.6.5.44. Texas
  - 4.6.5.45. Utah
  - 4.6.5.46. Vermont
  - 4.6.5.47. Virginia
  - 4.6.5.48. Washington
  - 4.6.5.49. West Virginia
  - 4.6.5.50. Wisconsin
  - 4.6.5.51. Wyoming
  - 4.6.5.52. Other
- 4.6.6. Other

#### 4.7. Credit Instruments

##### 4.7.1. Bonds/Notes

###### 4.7.1.1. Corporate Debt (Single Name)

###### 4.7.1.2. Corporate Debt (Indices/Pooled products)

Use the rating/structure of the instrument at issue to fill this section.

###### 4.7.1.2.1. SeniorMost/"AAA" Tranches

###### 4.7.1.2.2. Mezzanine Tranches

###### 4.7.1.2.3. JuniorMost/First Loss Tranches

###### 4.7.1.3. Mortgages (Indices/Pooled products)

###### 4.7.1.4. Other Securitised Assets (Single name/Indices/Pooled products)

Use the rating/structure of the instrument at issue to fill this section.

###### 4.7.1.4.1. SeniorMost/"AAA" Tranches

- 4.7.1.4.2. Mezzanine Tranches
- 4.7.1.4.3. JuniorMost/First Loss Tranches
- 4.7.1.5. Municipal Bonds

#### **4.7.2. Bank Loans**

- 4.7.2.1. Corporate Debt (Single Name)
- 4.7.2.2. Corporate Debt (Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.2.2.1. SeniorMost/"AAA" Tranches
  - 4.7.2.2.2. Mezzanine Tranches
  - 4.7.2.2.3. JuniorMost/First Loss Tranches
- 4.7.2.3. Mortgages (Indices/Pooled products)
- 4.7.2.4. Other Securitised Assets (Single name/Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.2.4.1. SeniorMost/"AAA" Tranches
  - 4.7.2.4.2. Mezzanine Tranches
  - 4.7.2.4.3. JuniorMost/First Loss Tranches
- 4.7.2.5. Municipal Bonds

#### **4.7.3. Credit Default Swaps**

- 4.7.3.1. Corporate Debt (Single Name)
- 4.7.3.2. Corporate Debt (Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.3.2.1. SeniorMost/"AAA" Tranches
  - 4.7.3.2.2. Mezzanine Tranches
  - 4.7.3.2.3. JuniorMost/First Loss Tranches
- 4.7.3.3. Mortgages (Indices/Pooled products)
- 4.7.3.4. Other Securitised Assets (Single name/Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.3.4.1. SeniorMost/"AAA" Tranches
  - 4.7.3.4.2. Mezzanine Tranches
  - 4.7.3.4.3. JuniorMost/First Loss Tranches
- 4.7.3.5. Municipal Bonds

#### **4.7.4. CDO**

- 4.7.4.1. Corporate Debt (Single Name)
- 4.7.4.2. Corporate Debt (Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.4.2.1. SeniorMost/"AAA" Tranches
  - 4.7.4.2.2. Mezzanine Tranches
  - 4.7.4.2.3. JuniorMost/First Loss Tranches
- 4.7.4.3. Mortgages (Indices/Pooled products)
- 4.7.4.4. Other Securitised Assets (Single name/Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.4.4.1. SeniorMost/"AAA" Tranches
  - 4.7.4.4.2. Mezzanine Tranches
  - 4.7.4.4.3. JuniorMost/First Loss Tranches
- 4.7.4.5. Municipal Bonds

#### **4.7.5. Other Derivatives**

- 4.7.5.1. Corporate Debt (Single Name)
- 4.7.5.2. Corporate Debt (Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.5.2.1. SeniorMost/"AAA" Tranches
  - 4.7.5.2.2. Mezzanine Tranches
  - 4.7.5.2.3. JuniorMost/First Loss Tranches
- 4.7.5.3. Mortgages (Indices/Pooled products)
- 4.7.5.4. Other Securitised Assets (Single name/Indices/Pooled products)  
Use the rating/structure of the instrument at issue to fill this section.
  - 4.7.5.4.1. SeniorMost/"AAA" Tranches
  - 4.7.5.4.2. Mezzanine Tranches
  - 4.7.5.4.3. JuniorMost/First Loss Tranches

#### **4.7.5.5. Municipal Bonds**

#### **4.7.6.ETF**

##### **4.7.6.1. Corporate Debt (Single Name)**

##### **4.7.6.2. Corporate Debt (Indices/Pooled products)**

Use the rating/structure of the instrument at issue to fill this section.

###### **4.7.6.2.1. SeniorMost/"AAA" Tranches**

###### **4.7.6.2.2. Mezzanine Tranches**

###### **4.7.6.2.3. JuniorMost/First Loss Tranches**

##### **4.7.6.3. Mortgages (Indices/Pooled products)**

##### **4.7.6.4. Other Securitised Assets (Single name/Indices/Pooled products)**

Use the rating/structure of the instrument at issue to fill this section.

###### **4.7.6.4.1. SeniorMost/"AAA" Tranches**

###### **4.7.6.4.2. Mezzanine Tranches**

###### **4.7.6.4.3. JuniorMost/First Loss Tranches**

#### **4.7.6.5. Municipal Bonds**

#### **4.7.7.Other**

##### **4.7.7.1. Corporate Debt (Single Name)**

##### **4.7.7.2. Corporate Debt (Indices/Pooled products)**

Use the rating/structure of the instrument at issue to fill this section.

###### **4.7.7.2.1. SeniorMost/"AAA" Tranches**

###### **4.7.7.2.2. Mezzanine Tranches**

###### **4.7.7.2.3. JuniorMost/First Loss Tranches**

##### **4.7.7.3. Mortgages (Indices/Pooled products)**

##### **4.7.7.4. Other Securitised Assets (Single name/Indices/Pooled products)**

Use the rating/structure of the instrument at issue to fill this section.

###### **4.7.7.4.1. SeniorMost/"AAA" Tranches**

###### **4.7.7.4.2. Mezzanine Tranches**

###### **4.7.7.4.3. JuniorMost/First Loss Tranches**

#### **4.7.7.5. Municipal Bonds**

#### **4.8. Price Yield and Spread:**

##### **4.8.1.1. Performing Debt:**

##### **4.8.1.2. Average cash on cash yield**

The weighted average of cash on cash yields within the portfolio. Cash on cash yield is defined as the net cashflow received on an investment divided by the current market value of the investment. For example, consider a portfolio of two securities, with 70% in security A and 30% in security B. Security A is trading at \$80 and yielding 8% and Security B is trading at 50 and also yielding 8%. The Cash on Cash Yield would be 11.8%  $(70\%*(8/80)+30\%*(8/50))$ .

##### **4.8.1.3. Average Yield to Worst**

The weighted average of yields in the portfolio under the assumption that any callable bonds within the portfolio are called at the earliest possible opportunity.

##### **4.8.1.4. CDS current spread**

The weighted average of spreads for Credit Default Swaps contained within the portfolio.

#### **4.8.2. Non Performing Debt:**

Investments with uncertain cash flows should be included in this section

##### **4.8.2.1. Average \$ price (cents per \$)**

The weighted average market price of non performing debt within the portfolio.

#### **4.8.3. Other**

#### **4.9. Credit Rating: see note GP 10.2**

#### **4.10. Maturity Buckets:**

Maturity is calculated from portfolio date to position end maturity date and not at time of issue.

##### **4.10.1. Portfolio Average Maturity:**

###### **4.10.1.1. Less than or equal to 1 year**

###### **4.10.1.1.1. Less than or equal to 6 Months**

###### **4.10.1.1.2. More than 6 Months to Less than or equal to 1 year**

- 4.10.1.2. More than 1 year to less than or equal to 3 years
  - 4.10.1.2.1. More than 1 to Less than or equal to 2 Years
  - 4.10.1.2.2. More than 2 to Less than or equal to 3 Years
- 4.10.1.3. More than 3 years to Less than or equal to 5 Years
  - 4.10.1.3.1. More than 3 to Less than or equal to 4 Years
  - 4.10.1.3.2. More than 4 to Less than or equal to 5 Years
- 4.10.1.4. More than 5 years - 10yr:
  - 4.10.1.4.1. More than 5 to Less than or equal to 7 Years
  - 4.10.1.4.2. More than 7 to Less than or equal to 10 Years
- 4.10.1.5. More than 10 years: Perpetuities should be included here
  - 4.10.1.5.1. 10 to Less than or equal to 15 Years
  - 4.10.1.5.2. 15 to Less than or equal to 20 Years
  - 4.10.1.5.3. More than 20 Years: Perpetuities should be included here

#### 4.10.2. Non Performing Debt:

Investments with uncertain cashflows should be included in this section

#### 4.11. Concentration of ownership:

This section aims to show potential liquidity risk existing in the portfolio, especially for non exchange traded instruments.

##### 4.11.1. Average Percentage Ownership of total Outstanding Bonds Issued

Report weighted average of the percentage ownership of outstanding issuance for all investments in the portfolio.

For example, a manager with \$100 to invest has invested \$75 in security A and \$25 in security B. If Security A also has a total of \$1000 of outstanding issuance in the market and security B has \$100 of outstanding issuance then the number to report would be 11.90% ( $75\% \times 75 / 1000 + 25\% \times 25 / 100$ ). Also note that this answer will not change, even if both security A and B were issued by the same entity.

For Grades 2 and 3 report the breakdown by concentration. Using the example above, for Grade 2, 4.11.1.3 will have 75% and 4.11.1.4 will have 25%. For grade 3, 4.11.1.4.1 would be 25%.

- 4.11.1.1. Less than 5%
- 4.11.1.2. 5% to 10% (values greater than or equal to 5% and less than 10%)
- 4.11.1.3. 10% to 20% (values greater than or equal to 10% and less than 20%)
- 4.11.1.4. 20+% (values greater than or equal to 20%)
  - 4.11.1.4.1. 20%-50% (values greater than or equal to 20% and less than 50%)
  - 4.11.1.4.2. 50+% (values greater than or equal to 50%)

4.12. **Liquidity:** see note GP 13

4.13. **Comments:** see note GP 20

## 5. Convertible Bond Exposure

- Report all exposures arising from trading of convertible bonds (physically, synthetically or through derivatives) in this section.
- Notional exposures, as a percentage of AUM (see note GP 6) should be entered here, except where specified otherwise

**5.1. Total exposure to Convertible bonds (Hybrids):** see note GP 5

**5.2. Percentage of Portfolio:** see note GP 5

**5.3. Aggregate number of Parent Issuers** see note GP 8

**5.4. Sectors:** See note GP 10.1

**5.5. Regions:** see note GP 11

**5.6. Instrument:**

**5.6.1. Convertible Bonds:** This section should include synthetic convertible bonds

**5.6.2. CoCos**

**5.6.3. CoPays**

**5.6.4. Convertible Hybrids/Mandatories**

**5.6.5. Convertible Preferred**

**5.6.6. Coupon Convertibles**

**5.6.7. Warrants and Options**

**5.6.8. ASCOTS:** Report exposures based on market value or look through value if available.

**5.6.8.1. ASCOTS - Market Value**

**5.6.8.2. ASCOTS - Look through Value**

**5.6.9. ETF**

**5.7. Derivative specific information:**

**5.7.1. Portfolio Premium**

- Net weighted average of convertible bond premiums as a percentage of net (long minus short positions) market value of all convertible bonds in the portfolio, where convertible bond premium represents the amount by which the price of a convertible security exceeds the current market value of the common stock into which it may be converted.

**5.7.2. Current Yield**

- The weighted average of current yields in the portfolio where current yield is expressed as the annual coupon amount as a percentage of current market price.

**5.7.3. Average Yield to Maturity (YTM):**

- The weighted average of YTM in the portfolio, where YTM is expressed as the interest rate that will make the present value of the cash flows - both coupon payments and final maturity value - equal to the bond market price, if the bond is held to maturity.
- YTM need only to be computed for those instruments for which it is relevant. Negative YTM should be entered as zero YTM here.

**5.7.4. Portfolio Yield to Best:** Where convertibles have puts on dates earlier than maturity, which if put would result in a higher yield than the yield to maturity. Equally they can be called. Yield to

best is higher of yield to maturity (see 5.7.3) /yield to put/yield to call as applicable.

**5.7.5. Average Portfolio Bond Market Price:** The weighted average of convertible bond market prices in the portfolio. Par should be assumed to be \$100 for each bond.

- 5.7.5.1. Exposure to bonds with market value: less than 50.
- 5.7.5.2. Greater than or equal to 50 and less than 100.
- 5.7.5.3. Greater than or equal to 100 and less than 150.
- 5.7.5.4. Greater than or equal to 150.

**5.7.6. Average Portfolio Delta:** The weighted average of convertible bond deltas in the portfolio.

- 5.7.6.1. Exposure to bonds with delta: less than 25.
- 5.7.6.2. Greater than or equal to 25 and less than 50.
- 5.7.6.3. Greater than or equal to 50 and less than 75.
- 5.7.6.4. Greater than or equal to 75.

**5.7.7. Premium over Parity:** The weighted average of premium over parity with the convertible bond portfolio where premium over parity is expressed as convertible price minus conversion (considering convertible bonds with embedded puts and calls) value.

- 5.7.7.1. Less than 10%.
- 5.7.7.2. Greater than or equal to 10% and less than 25%.
- 5.7.7.3. Greater than or equal to 25% and less than 50%.
- 5.7.7.4. Greater than or equal to 50% and less than 75%.
- 5.7.7.5. Greater than or equal to 75% and less than 100%.
- 5.7.7.6. Greater than or equal to 100%.

**5.8. Credit Rating:** see breakdown in note GP 10.2

Investments in convertible bonds where the credit exposure is eliminated through a swap, i.e. Asset Swapped Convertible Bonds, should be reported under 5.8.1.

**5.9. Maturity Buckets:** similar to 4.10, except Non-Performing Debt has been removed here

**5.9.1. Portfolio Average Maturity:**

- 5.9.1.1. Less than or equal to 1 year
  - 5.9.1.1.1. Less than or equal to 6 Months
  - 5.9.1.1.2. More than 6 Months to Less than or equal to 1 year
- 5.9.1.2. More than 1 year to less than or equal to 3 years
  - 5.9.1.2.1. More than 1 to Less than or equal to 2 Years
  - 5.9.1.2.2. More than 2 to Less than or equal to 3 Years
- 5.9.1.3. More than 3 years to Less than or equal to 5 Years
  - 5.9.1.3.1. More than 3 to Less than or equal to 4 Years
  - 5.9.1.3.2. More than 4 to Less than or equal to 5 Years
- 5.9.1.4. More than 5 years to Less than or equal 10yr:
  - 5.9.1.4.1. More than 5 to Less than or equal to 7 Years
  - 5.9.1.4.2. More than 7 to Less than or equal to 10 Years
- 5.9.1.5. More than 10 years : Perpetuities should be included here
  - 5.9.1.5.1. 10 to Less than or equal to 15 Years
  - 5.9.1.5.2. 15 to Less than or equal to 20 Years
  - 5.9.1.5.3. More than 20 Years


**5.10. Concentration of ownership:**

This section aims to show potential liquidity risk existing in the portfolio, especially for non exchange traded instruments.

**5.10.1. Average Percentage Ownership of total Outstanding Bonds Issued**

Report weighted average of the percentage ownership of outstanding issuance for all investments in the portfolio.

For example, a manager with \$100 to invest has invested \$75 in security A and \$25 in security B. If Security A also has a total of \$1000 of outstanding issuance in the market and security B has \$100 of outstanding issuance then the number to report would be 11.90% ( $75\% \times 75/1000 + 25\% \times 25/100$ ). Also note that this answer will not change, even if both security A and B were issued by the same entity.



For Grades 2 and 3 report the breakdown by concentration. Using the example above, for Grade 2, 5.10.1.3 will have 75% and 5.10.1.4 will have 25%. For grade 3, 5.10.1.4.1 would be 25%.

- 5.10.1.1.** Less than 5%
- 5.10.1.2.** 5% to 10% (values greater than or equal to 5% and less than 10%)
- 5.10.1.3.** 10% to 20% (values greater than or equal to 10% and less than 20%)
- 5.10.1.4.** 20+% (values greater than or equal to 20%)
  - 5.10.1.4.1.** 20%-50% (values greater than or equal to 20% and less than 50%)
  - 5.10.1.4.2.** 50+% (values greater than or equal to 50%)

**5.11.**        **Liquidity:** see note GP 13

**5.12.**        **Comments:** see note GP 20



## 6. Currency Exposure

- Report all exposures arising from trading of currency or foreign exchange products (physically, synthetically or through derivatives) in this section.
- Total gross notional exposures of outstanding contracts, as a percentage of AUM (see note GP 6), should be entered here, except where specified otherwise.
- Non-investment exposures, such as share class hedges, should not be considered here. As mentioned in GP 3, all Non USD exposures should be converted to USD, using the exchange rate as of the last trading day of the month, and the resulting currency exposure shown in this section.
- One leg of all exposures should be shown under USD and long or short other currencies. For cross currency trades, a EUR/GBP position for example, this would be included as EUR exposure in the Long column and GBP in the Short column and an equal amount of long and short exposure under USD.

**6.1. Total exposure to Currency:** see note GP 5

**6.2. Percentage of Portfolio:** see note GP 5 and GP 6

**6.3. Aggregate number of Positions:** Total number of currencies traded. For example if you are long USD short Euro and short USD and Long GBP then the number of positions would be 3.

**6.4. Regional Currencies:** see Appendix G for breakdowns. Currency exposures, rather than regional exposures, should be entered here.

Please note that in some situations individual countries have been replaced by multi country currencies like Euro and CFA Franc.

**6.5. Instruments:**

### 6.5.1. Non USD G10 Currency:

- 6.5.1.1. **Forwards Swaps and Futures:** Non-Deliverable Forwards (NDFs) should appear in this section
- 6.5.1.2. **Currency Options (vanilla):** for a full list, see Appendix H.
- 6.5.1.3. **Currency Options (exotic):** options not on the list of Vanilla Options
- 6.5.1.4. **Spot**

### 6.5.2. Non G10 Currency:

- 6.5.2.1. **Currency Forwards Swaps and Futures:** Non-Deliverable Forwards (NDFs) should appear in this section
- 6.5.2.2. **Currency Options (vanilla):** for a full list, see Appendix H.
- 6.5.2.3. **Currency Options (exotic):** options not on the list of Vanilla Options
- 6.5.2.4. **Spot**

### 6.5.3. Other

**6.6. Liquidity:** see note GP 13

**6.7. Comments:** see note GP 20

## 7. Real Assets and Commodities Exposure

- Report all exposures arising from trading of real assets (physically, synthetically or through derivatives) in this section.
- Notional exposures, as a percentage of AUM (see note GP 6), should be entered here, except for options, where delta adjusted exposure should be reported
- Investments in equity of companies with commodity as the prime concern should appear under the Equities section (section 2)

**7.1. Total Investments in Real Assets and Commodities:** see note GP 5

**7.2. Percentage of Portfolio:** see note GP 5

**7.3. Aggregate number of Positions:** Total number of positions in real assets.

**7.4. Regions:** for breakdown see note GP 11.

- Real Estate should be shown in the region where the asset is based.
- All other real assets should be shown in the Global region.

**7.5. Commodity Type:**

### 7.5.1. Energy (upstream):

- 7.5.1.1. Oil
  - 7.5.1.1.1. Crude Oil
  - 7.5.1.1.2. Brent Crude
  - 7.5.1.1.3. Unleaded Gasoline
  - 7.5.1.1.4. Heating Oil
  - 7.5.1.1.5. Gas Oil
  - 7.5.1.1.6. Other
- 7.5.1.2. Natural Gas
- 7.5.1.3. Power
- 7.5.1.4. Other

### 7.5.2. Metals:

- 7.5.2.1. Industrial Metals:
  - 7.5.2.1.1. Aluminium
  - 7.5.2.1.2. Copper
  - 7.5.2.1.3. Lead
  - 7.5.2.1.4. Nickel
  - 7.5.2.1.5. Zinc
  - 7.5.2.1.6. Tin
  - 7.5.2.1.7. Other
- 7.5.2.2. Precious Metals:
  - 7.5.2.2.1. Gold
  - 7.5.2.2.2. Silver
  - 7.5.2.2.3. Platinum
  - 7.5.2.2.4. Palladium
  - 7.5.2.2.5. Other
- 7.5.2.3. Other

### 7.5.3. Agriculture:

- 7.5.3.1. Grains and Oilseeds
  - 7.5.3.1.1. Wheat
  - 7.5.3.1.2. Corn
  - 7.5.3.1.3. Soybeans
  - 7.5.3.1.4. Soybean Meal
  - 7.5.3.1.5. Soybean Oil
  - 7.5.3.1.6. Rapeseed
  - 7.5.3.1.7. Oats
  - 7.5.3.1.8. Rough Rice
  - 7.5.3.1.9. Other

- 7.5.3.2. Softs**
  - 7.5.3.2.1. Cotton**
  - 7.5.3.2.2. Sugar**
  - 7.5.3.2.3. Coffee**
  - 7.5.3.2.4. Cocoa**
  - 7.5.3.2.5. Rubber**
  - 7.5.3.2.6. Other**
- 7.5.3.3. LiveStock:**
  - 7.5.3.3.1. Feeder Cattle**
  - 7.5.3.3.2. Live Cattle**
  - 7.5.3.3.3. Lean Hog**
  - 7.5.3.3.4. Other**
- 7.5.3.4. Other**
  - 7.5.3.4.1. Nitrogen**
  - 7.5.3.4.2. Phosphorus**
  - 7.5.3.4.3. Potassium (Potash).**
  - 7.5.3.4.4. Other**

#### **7.5.4. Other**

### **7.6. Commodities Instruments:**

#### **7.6.1. Physical:**

- 7.6.1.1. Energy (upstream)**
- 7.6.1.2. Metals**
- 7.6.1.3. Agriculture**
- 7.6.1.4. Other**

#### **7.6.2. Futures and Cleared Swaps:**

See 7.6.1 for breakdown

#### **7.6.3. ETF**

See 7.6.1 for breakdown

#### **7.6.4. Forwards and Swaps:**

See 7.6.1 for breakdown

#### **7.6.5. Options:**

- 7.6.5.1. Calls**
  - 7.6.5.1.1.** See 7.6.1 for breakdown
- 7.6.5.2. Puts**
  - 7.6.5.2.1.** See 7.6.1 for breakdown

#### **7.6.6. Other**

### **7.7. Real Estate:**

- Breakdown of real estate is from the NCREIF (National Council of Real Estate Investment Fiduciaries). For more information see: [www.ncreif.org](http://www.ncreif.org)
- Real Estate exposure through REIT should be reported in the Equity section.

#### **7.7.1. Commercial**

- 7.7.1.1. Office**
  - 7.7.1.1.1. Central Business District**
  - 7.7.1.1.2. Suburban**
  - 7.7.1.1.3. Other**
- 7.7.1.2. Retail**
  - 7.7.1.2.1. Neighborhood Centre**
  - 7.7.1.2.2. Community Centre**
  - 7.7.1.2.3. Regional Centre**
  - 7.7.1.2.4. Super-Regional Centre**
  - 7.7.1.2.5. Fashion/Specialty Centre**
  - 7.7.1.2.6. Power Centre**
  - 7.7.1.2.7. Theme/Festival Centre**
  - 7.7.1.2.8. Outlet Centre**

- 7.7.1.2.9. Single-Tenant
- 7.7.1.2.10. Other
- 7.7.1.3. Industrial
  - 7.7.1.3.1. Flex Space
  - 7.7.1.3.2. Research and Development
  - 7.7.1.3.3. Warehouse
  - 7.7.1.3.4. Manufacturing and Office Showroom
  - 7.7.1.3.5. Other
- 7.7.1.4. Hotel
- 7.7.1.5. Other

#### 7.7.2. Residential

- 7.7.2.1. High-Rise Elevator Projects
- 7.7.2.2. Low-Rise Projects
- 7.7.2.3. Garden-Type Projects
- 7.7.2.4. Other

#### 7.7.3. Other

### 7.8. Timberland:

#### 7.8.1. Conifer Physical:

- 7.8.1.1. Structural
- 7.8.1.2. Non-Structural
- 7.8.1.3. Other

#### 7.8.2. Non Conifer Physical:

- 7.8.2.1. Non-Structural
- 7.8.2.2. Fiber
- 7.8.2.3. Other

#### 7.8.3. Timberland Derivatives:

- 7.8.3.1. Futures and Cleared Swap
- 7.8.3.2. Forwards and Swaps
- 7.8.3.3. Options
  - 7.8.3.3.1. Call Option
  - 7.8.3.3.2. Put Option

#### 7.8.4. Other

### 7.9. Infrastructure

#### 7.9.1. Energy (Mid and Down Stream)

- 7.9.1.1. Oil
- 7.9.1.2. Natural Gas
- 7.9.1.3. Power
- 7.9.1.4. Other

#### 7.9.2. Transportation

#### 7.9.3. Other

7.10. Liquidity: see note GP 13

7.11. Comments: see note GP 20

## 8. VaR

- Report Exposure, VaR and CVaR as a percentage of AUM at portfolio level and its breakdown across Asset Class, Region and Sector where applicable.
- For certain strategies, especially those exposed to event risk like Distressed or Risk Arbitrage, Value at Risk might not be a good measure of risk. For these strategies managers can use their historic returns to calculate Parametric VaR, and not provide its breakdown under section 8.5, 8.6 and 8.7.

### 8.1. VaR Calculation Methodology: Report Value at Risk using following fixed parameters:

**Confidence level:** 95% (single tail)

**Holding period:** 1 day

Managers should use their own values for remaining parameters but are required to explicitly report them:

#### 8.1.1. VaR Methodology: Choose the methodology from a drop down list:

**Historical Simulation:** VaR based on simulation using actual historic asset prices and correlations.

**Monte Carlo Simulation:** VaR based on Monte Carlo simulation of asset prices and correlations.

**Parametric Modelling:** VaR based on historic standard deviation of the portfolio.

**Other**

#### 8.1.2. If "Other" is chosen in 9.1.1 then provide brief explanation about methodology used.

#### 8.1.3. Decay factor: Report the decay rate used. If all data is considered to be equally probable (i.e. no decay is considered) then report 1. Otherwise report the decay factor used. For example if the decay factor is 0.80, the most recent data point T has the probability weight P; the data point immediately prior, T-1, will be weighted at $0.8 \times P$ , and the one before that, T-2, will be $0.64$ times P....

#### 8.1.4. Look Back period: report the look back period considered for calculation in number of business days. For example, if you are using a look back window of 2 years, then report 504 (assuming 252 business days in a year).

### 8.2. % Exposure: Exposure should be netted exposures, ie long minus short exposure from the Non-Netted columns from the relevant asset class buckets. For example, for Equities report value derived from subtracting 2.2.4 from 2.2.3.

### 8.3. % VaR: Report VaR values based on the methodology and parameters selected in 8.1

### 8.4. % CVaR: Report the Conditional Value at Risk (Expected shortfall) using the same data set used above for VaR. CVaR is the expected (average) excess loss beyond VaR (see 8.2).

### 8.5. Asset Class:

Report breakdown of VaR and CVaR across the main asset classes.

#### 8.5.1. Equity

#### 8.5.2. Sovereign and Int. Rate

#### 8.5.3. Credit (exc. Convertible Bonds)

#### 8.5.4. Convertible Bonds

#### 8.5.5. Commodities

#### 8.5.6. Currency

#### 8.5.7. Diversification Benefit: Report the difference between total portfolio VaR/CVaR and sum of the VaR/CVaR from all the asset class.

#### 8.5.8. Portfolio: Report portfolio level VaR.

### 8.6. Region: see note GP 11


- Report breakdown of VaR/CVaR across the main regions.
- If it is difficult to identify a specific region (e.g. commodities) please include it under Global.

### 8.7. Sector: see note GP 9

Report breakdown of VaR/CVaR across the main sectors.

If it is difficult to identify a specific sector (e.g. sovereign debt) please include it under Other.

### 8.8. Exposure included in the calculation



It might be difficult to objectively and accurately calculate VaR for certain types of investments. In this section report total exposure which has been considered for calculating VaR/CVaR.

**8.8.1. Long exposure included in the calculation**

Report market value of the long exposures included in the calculations as a percentage of AUM.

**8.8.2. Short exposure included in the calculation**

Report market value of the short exposures included in the calculations as a percentage of AUM.

**8.9. Comments:** see note GP 20



## 9. Sensitivity

- Figures entered should be as a percentage of Assets under Management (see note GP 6). For example, under Beta (10.1), if a fund with \$100 AUM rises by \$3 for 1% increase in MSCI World, report 3%.
- These should only be entered where relevant for each asset class (i.e. where non-shaded).

Asset Class	Beta	Delta	Gamma	Vega	Theta	CS01	DV01
Equity							
Sovereign and Int. Rate							
Credit (x Convertible Bonds)							
Convertible Bonds							
Currency							
Commodities							

- 9.1. Beta:** Change in the value of portfolio resulting from a 1% increase in the MSCI Daily TR Gross World Equity Index (Bloomberg Ticker: GDDUWI Index). Beta should be computed using predictive analysis (i.e. with all assets moving in accordance to their covariance with the market factor). Calculations should be based on maximum of two years of weekly data, or the longest available.
- 9.2. Delta:** The change in portfolio value resulting from a 1% relative change in underlying asset value.  
Portfolio level delta should be calculated bottom up, i.e. value of each position must be considered while arriving at the portfolio value.  
Specifically:  
**For Equities:** The expected change in the aggregate value of all positions in the asset class resulting from a 1% increase in the price of all equities.  
**For Credit Instruments:** The expected change in the aggregate value of all positions in the asset class resulting from a 1% increase in the spread of all credit instruments.  
**For Commodities:** the expected change in the aggregate value of all positions in the asset class resulting from a 1% change in the price of all commodities  
**For Currencies:** the expected change in the aggregate value of all positions in the asset class resulting from a 1% increase in all foreign exchange rates relative to the reporting firm's base currency. For the avoidance of doubt, an increase in foreign exchange rates means the appreciation of a foreign currency versus the base currency.  
**For Interest Rates:** the expected change in the aggregate value of all positions in the asset class resulting from a 1% relative increase in all interest rates
- 9.3. Gamma:** for each asset class, the change in delta for 1% change in underlying asset value
- 9.4. Vega:** Sensitivity of asset class to 1% relative change in the current implied volatility of each applicable position in the portfolio
- 9.5. Theta:** The change in portfolio value after reprising after one day of time decay
- 9.6. CS01:** The change in portfolio value for a uniform parallel shift in all *non-risk-free* interest rate curves. For all instruments in the portfolio with credit sensitivity, increase the relevant credit spread by 1 basis point and compute the change in value.
- 9.7. DV01** The change in portfolio value for a parallel shift in interest rates. For all instruments in the portfolio with interest rate sensitivity, lower the rate by 1bp and calculate the change in value.
- 9.8. Asset Class:**
- 9.8.1. Equity
  - 9.8.2. Sovereign Interest Rate
  - 9.8.3. Credit (x Convertible Bonds)
  - 9.8.4. Convertible Bond
  - 9.8.5. Currency

#### **9.8.6.Commodities**

#### **9.9. Exposure included in the calculation**

It might be difficult to objectively and accurately calculate sensitivity for certain types of investments. In this section report total exposure which has been considered for calculating sensitivity.

##### **9.9.1. Long exposure included in the calculation**

Report market value of the long exposures included in the calculations as a percentage of AUM.

##### **9.9.2. Short exposure included in the calculation**

Report market value of the short exposures included in the calculations as a percentage of AUM.

#### **9.10.       Comments: see note GP 20**



## 10. Stress Tests

- Report the effect of the specified market changes on the portfolio return as a percentage.
- In the column titled “% Long Exp. Included in the Calculation” report the percentage of AUM in long exposure which is being considered for calculations.
- In the column titled “% Short Exp. Included in the Calculation” report the percentage of AUM in short exposure which is being considered for calculations.

### 10.1. Scenarios

- For the different scenarios report impact on portfolio returns based on “Simple” (not Predictive) methodology. So assume changes to the specified time series only and in isolation.
- Change all relevant underlying instruments. For example, under Equity +10% section, report the impact on the portfolio of all underlying equity related positions (each investment) going up by 10%, all physical equity investments (linear) would go up by 10%. However if you hold any derivatives then report the impact of the underlying (not the instrument itself) increasing by 10%.
- If any of the specified market changes are not relevant for the investments in the portfolio then do not fill in any value.
- All market changes are relative. For example, +10% means consider the value of the factor increasing by 10% from its current value. So if the index is trading at 150, consider what would happen to portfolio if the value rose to 165.

#### 10.1.1. Equity +10%

##### 10.1.1.1. Large Cap Equity +10%

Refer to GP 12 for market capital definition. For this section Large cap includes Mega cap also. All equity investments with Market Capital above \$10bn should be included here. Any Index investment, which does not explicitly have a Small Cap bias, should also be included here.

##### 10.1.1.2. Small Cap Equity +10%

Refer to GP 12 for market capital definition. For this section Small cap includes Mid cap and Micro cap. All equity investments with Market Capital below \$10bn should be included here. Any Index investment which has an explicit Small Cap bias should be included here.

#### 10.1.2. Equity -10%

##### 10.1.2.1. Large Cap Equity -10%

Refer to GP 12 for market capital definition. For this section Large cap includes Mega cap also. All equity investments with Market Capital above \$10bn should be included here. Any Index investment, which does not explicitly have a Small Cap bias, should also be included here.

##### 10.1.2.2. Small Cap Equity -10%

Refer to GP 12 for market capital definition. For this section Small cap includes Mid cap and Micro cap. All equity investments with Market Capital below \$10bn should be included here. Any Index investment which has an explicit Small Cap bias should be included here.

#### 10.1.3. Sovereign Interest Rate +10%

For example +10% would mean current interest rates of 1% would go up to 1.10%.

##### 10.1.3.1. Short Term Rates +5%

Short Term refers to any security with maturity which is less than or equal to 1 year.

##### 10.1.3.2. Long Term Rates +10%

Long term refers to any security with maturity which is more than 1 year.

#### 10.1.4. Interest Rate -10%

##### 10.1.4.1. Short Term Rates -5%

Short Term refers to any security with maturity which is less than or equal to 1 year.

##### 10.1.4.2. Long Term Rates -10%

Long term refers to any security with maturity which is more than 1 year.

#### 10.1.5. Credit +10%

For example +10% would mean that bonds yields or instruments based on spreads of 5% would go up to 5.50%.

##### 10.1.5.1. Investment Grade +5%

##### 10.1.5.2. Non Investment Grade +10%

#### 10.1.6. Credit -10%

##### 10.1.6.1. Investment Grade -5%

- 10.1.6.2. **Non Investment Grade -10%**
- 10.1.7. **Convertible Bonds +10%**
  - 10.1.7.1. **Investment Grade +5%**
  - 10.1.7.2. **Non Investment Grade +10%**
- 10.1.8. **Convertible Bonds -10%**
  - 10.1.8.1. **Investment Grade -5%**
  - 10.1.8.2. **Non Investment Grade -10%**
- 10.1.9. **Commodities +10%**
  - At Grade 2 commodity exposures not related to metal or energy should not be shocked.
  - 10.1.9.1. **Metal +10%**
  - 10.1.9.2. **Energy +10%**
- 10.1.10. **Commodities -10%**
  - 10.1.10.1. **Metal -10%**
  - 10.1.10.2. **Energy -10%**
- 10.1.11. **Currency +10%**
  - All calculations should be with respect to USD, i.e. USD strengthens by 10%
- 10.1.12. **Currency -10%**
  - All calculations should be with respect to USD, i.e. USD weakens by 10%
- 10.1.13. **Implied Volatility +10%**
- 10.1.14. **Implied Volatility -10%**

- 10.2. Historical Stress:** This should be filled in for Grade 2 only. Report the actual performance of the portfolio (expressed as percentage) during the historic stress event. A suitable Proxy can be used for investments in securities which did not exist during the relevant historic period. The proxy could be a related/similar security with history or an expectation based on an econometric model constructed on actual data. If a suitable proxy cannot be identified, ignore the exposure for this calculation and adjust the "Long and Short exposure included in the calculation" values accordingly.

- 10.2.1.** Grade 1 should be left empty
- 10.2.1.1. **Tech Bubble (15<sup>th</sup> March to 14<sup>th</sup> April 2000)**
  - 10.2.1.2. **September 11<sup>th</sup> (10<sup>th</sup> to 17<sup>th</sup> September 2000)**
  - 10.2.1.3. **Credit Event 1 (23<sup>rd</sup> August to 9<sup>th</sup> October 2002)**
  - 10.2.1.4. **Gulf War 2 (1<sup>st</sup> to 21<sup>st</sup> March 2003)**
  - 10.2.1.5. **Subprime crisis (16<sup>th</sup> July to 16<sup>th</sup> August 2007)**
  - 10.2.1.6. **Credit Event 2 (12<sup>th</sup> September to 15<sup>th</sup> October 2008)**

- 10.3. Historical Portfolio Stress** (over last 500 trading days)

For the current portfolio report the worst cumulative return over the specified period over last 500 trading days.

Results should be based on simulated portfolio performance assuming current positions and historic prices. A suitable Proxy can be used for investments in securities which did not exist during the relevant historic period. The proxy could be a related/similar security with history or an expectation based on an econometric model constructed on actual data. If a suitable proxy cannot be identified, ignore the exposure for this calculation and adjust the "Long and Short exposure included in the calculation" values accordingly.

Report also the start date for the rolling period

- 10.3.1. **Worst Rolling 5 day Cumulative Return**
- 10.3.2. **Worst Rolling 10 day Cumulative Return**
- 10.3.3. **Worst Rolling 20 day Cumulative Return**

- 10.4. Comments:** see note GP 20

## 11. Counterparty Exposure

- This section will provide an insight into the safety of assets, the use of various trade financing agreements and diversification of financing sources. All information is asked at Grade 1 and Grade 3 only, and nothing at Grade 2.
- At Grade 1 you are only required to fill only the “non blacked out” sections. For example, under section 11.1. only report number of relationships and total exposure in USD. At Grade 1 you are not required to fill other columns like LMV, SMV, Cash, OTE/MTM Available Liquidity, Required Margin and Exposure as a percentage of AUM, these should be reported only at Grade 3.

**Equity:** generally this means the net value of the account according to audit standards.

- For an equity prime brokerage account this might be the sum of:
- Long Market Value (LMV) of non derivative positions,
- Short Market Value (SMV) of non derivative positions,
- Cash and
- Open Trade Equity/Mark-to-Market (OTE/MTM) for net derivative positions.
- For an ISDA relationship it would be the sum of mark to market of derivatives and collateral posted, etc. The number will usually be positive but in theory could be negative (if there were a large unfulfilled margin call, for example).

**Number of Custodians/Counterparties:** For sections roll up to parent entity, not subsidiary except for the sections relating to Geography where the regional location of the subsidiary should be considered.

Select the most appropriate number from the drop down list: {0; 1; 2; 3; 4; 5; 6 to 9; 10 to 15; 15+}

**Number of Financing Agreements:** report the total number of trading agreements in place, not just those that are used at the time of reporting

Select the most appropriate number from the drop down list: {0; 1; 2; 3; 4; 5; 6 to 9; 10 to 15; 15+}

### Agreement Type

#### 11.1. Trading assets

- “Trading assets” means assets in accounts which carry one or more of the following risks:
  - The counterparty can make a claim on the equity (usually due to mark to market of leveraged positions) without having to seek approval from the fund.
  - The counterparty has a very high degree of control over the account and could potentially remove assets at any time (by mistake, or otherwise) without the approval of the fund.
  - The fund would be in a relatively weak legal position if the counterparty were to default, for example an ordinary bank deposit account (unless covered by government guarantee)

##### 11.1.1. ISDA

##### 11.1.2. Prime Brokerage

##### 11.1.3. Futures Clearing

##### 11.1.4. Other

##### 11.1.5. Multi (where covered by a netting agreement)

#### 11.2. Treasury assets

- “Treasury assets” means assets which do not carry the risks of trading assets:
  - The assets cannot be accessed by a counterparty without action on behalf of the fund. For example, in the case of a margin call, consent would need to be provided by the fund.
  - The assets will not automatically diminish if the mark to market of trading positions declines
  - The assets enjoy preferential legal protection (trust status, client money status etc)

##### 11.2.1. Tri-party account

**11.2.2. Segregated Client Account:** separate accounts in custody, segregated from proprietary assets and not comingled with other client assets

**11.2.3. Custody Account:** segregated from proprietary assets but held in an omnibus structure for the general benefit of clients, co-mingled client assets

#### **11.2.4. Guaranteed bank deposit account**

#### **11.3. Other**

##### **11.3.1. Net exposure to affiliated entities**

##### **11.3.2. Self custody** for example, investments in other funds, works of art, timberlands...

##### **11.3.3. Other assets**

#### **11.4. Trading assets by size of assets at counterparty**

- This section should be used for listing top counterparty relationships. You are not required to give any counter party names at Grade 1.
- For Grade 3 Refer to Appendix C for a list of counterparty names
- While reporting at Grade 3, when unable to disclose actual Counterparty Name, use "Counterparty A" etc. consistently throughout the report, i.e. "Counterparty A" is always the same entity.

##### **11.4.1. Top 3 Relationships**

##### **11.4.2. Top 5 Relationships**

##### **11.4.3. Top 10 Relationships**

#### **Exposure By Geography**

This section is intended to show the geography of entities that a manager is dealing with. Therefore do not roll up to a parent company level but show the locations of subsidiaries.

Regions: for breakdown see note GP 11. Note there is no "Global" under regions. Report individual countries should only be filled at Grade 3 level.

#### **11.5. Trading assets by geography**

#### **11.6. Treasury assets by geography**

#### **11.7. Other assets by geography**

#### **11.8. Trading assets by lockup profile**

- This section should be used to report Financing Lockup Profile
- This should only be filled at Grade 3 level of reporting.
- Report terms for which finance providers have committed to locking up their margin rules.
- If the fund does not have any term financing then enter 100% under "< 5 days" section.
- This section should sum to the same value as section 11.1.

##### **11.8.1. No information**

- 11.8.1.1.1. <5 days**
- 11.8.1.1.2. 6-15 days**
- 11.8.1.1.3. 16-30 days**
- 11.8.1.1.4. 31-90 days**
- 11.8.1.1.5. 91-180 days**
- 11.8.1.1.6. 181 days-1 year**
- 11.8.1.1.7. 1 year +**
- 11.8.1.1.8. Life of trade**

#### **11.9. Counterparty and Financing Sources**

##### **11.9.1. What % of your aggregate net credit counterparty exposure is with unregulated entities?**

##### **11.9.2. What % of your financing is uncollateralized?**

#### **11.10. Comments: see note GP 20**



## 12. Other:

Exposure to instruments which are not covered under the existing structure. For example, Hybrid options across different asset classes should show in the “Other” template. Non main stream asset classes like Weather and Insurance.

Total gross notional exposures should be presented here.

- 12.1. **Total Investments in instruments not covered by other sections:** see note GP 5
- 12.2. **Percentage of Portfolio:** see note GP 5 and GP 6
- 12.3. **Aggregate number of Positions:** Total number of positions.
- 12.4. **Description:** use this section to give some description about the exposures.



## Appendix A – Brief guide to understanding the template

Three levels of grades for different level of granularity.

Values column should be used to fill information regarding certain risk metrics which are not related to exposure.

Managers have the option to fill "Netted" exposure information. All exposure information (except where otherwise stated) should be as a percentage of AUM.

All Managers are required to fill "Non Netted" exposure information. All exposure information (except where otherwise stated) should be as a percentage of AUM.

Top

Sectors

Values in the "Top" column describe at a very high level the type of information. It is not one of the Grades

Long and Short exposure information should reported separately.

Unique identification number for each cell. First two digits indicate the general area, subsequent numbers indicate the level of grade.

Clicking on "+" sign will expand the tree.

Managers are not required to fill shaded cells.


	Grade 1	Grade 2	Grade 3	Values	Exposure % of AUM	Exposure % of AUM	# of Issuers	
					Long	Short	Long	Short
1	Total exposure to Hybrids (convertible bonds)				6.1.1	6.1.2	6.1.3	6.1.4
2								
3								
4	Top							
5	Percentage of Portfolio							
6	Aggregate number of Parent Issuers				6.2			
7								
8	Sectors							
9								
10	Materials							
11								
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## Appendix B: Investment Strategy Classification

Investment Strategy	Assets Classes	Instruments	Investment Style	Trading Strategy	Market Exposure	Holding Period
Activist	Equity	Securities	Systematic	Directional	Long Only	More than 24 months
Convertible Bond Arbitrage	Credit	Derivatives	Discretionary Top Down	Relative Value	Short Only	12 to 24 months
Credit Distressed	Sovereign Rates	Physical assets	Discretionary Bottom Up	Multiple	Long Bias	9 to 12 months
Credit Long/Short	Convertible bonds	Securities and Physicals	Discretionary Unspecified		Variable Bias	6 to 9 months
Equity Long/Short	Commodities	Securities and Derivatives	Multiple		Short Bias	3 to 6 months
Equity Market Neutral	Real Assets	Derivatives and Physicals			Neutral	1 to 3 months
Event Driven	Currencies	Securities, Derivatives and Physicals			Multiple	1 week to 1 month
Fixed Income Arbitrage	Other					Less than 1 week
Global Macro	Insurance					Multiple
Managed Futures/CTA	Multi Assets					
Risk Arbitrage						
Volatility Arbitrage						
Multi Strategy						
Other						
Non Hedge Fund						



## Appendix C: Counter Party



ABN AMRO Bank (Ireland) Ltd  
BNP Paribas Trust Company (Guernsey) Ltd  
Banco Itau  
Bank of America  
Bank of Butterfield  
Bank of New York Mellon  
Barclays Capital Securities Ltd  
BlackRock Financial Management Inc  
BMO Nesbitt Burns  
BNP Paribas  
Brown Brothers Harriman  
CACEIS Bank  
Caledonian Trust (Cayman) Ltd  
Citco Fund Services  
Citigroup  
Credit Suisse First Boston LLC  
Deutsche Bank  
Fidelity Prime Services  
First Republic Trust Company  
GlobeOp Financial Services  
Goldman Sachs  
HSBC  
HSBC Private Bank  
Horizon Cash Management  
ING Group  
Investec Prime Brokering  
JP Morgan  
Julius Baer  
Kotak Mahindra  
LaSalle Bank  
Merrill Lynch International  
Mizuho Trust  
MF Global Ltd  
Montague Place Custody Services  
Morgan Stanley  
National Bank Trust  
Newedge Group  
Northern Trust Corporation  
PNC Global Investment Servicing Inc  
Pictet & Cie  
RBC Dexia Investor Services  
Rand Financial Services Inc  
Rothschild Bank AG  
Royal Bank of Scotland  
Safra National Bank of New York  
Scotia Capital  
Skandinaviska Enskilda Banken SA  
Standard Chartered Bank



State Street  
Swedbank  
TD Bank  
US Trust  
UBS  
US Bank  
Wachovia  
Wells Fargo & Company  
Counterparty A  
Counterparty B  
Counterparty C  
Counterparty D  
Counterparty E  
Counterparty F  
Counterparty G  
Counterparty H  
Counterparty I  
Counterparty J  
Counterparty K  
Counterparty L  
Counterparty M  
Counterparty N  
Counterparty O  
Counterparty P  
Counterparty Q  
Counterparty R  
Counterparty S  
Counterparty T  
Counterparty U  
Counterparty V  
Counterparty W  
Counterparty X  
Counterparty Y  
Counterparty Z



## Appendix D: Global Industry Classification Standard (GICS®)\*

\* The Global Industry Classification Standard (GICS) was developed by and is the exclusive property of MSCI and Standard & Poor's. "Global Industry Classification Standard (GICS)", "GICS" and "GICS Direct" are service marks of Standard & Poor's and MSCI. "GICS" is a trademark of MSCI and Standard & Poor's.

Please note that GICS® classification system normally has four levels but to fit our three grade levels we have completely ignored the "Industry Group" level classification.

We have added the following three categories:

**Conglomerates:** Report investments in companies where sector information is not available from a publicly available database and are difficult to classify into a single sector.

**Broad Market Indices:** Report investment in an index which does not have single sector focus. For example investment in a position with the underlying of the S&P 500 index would be classified in this sector.

**Other:** Any investment which cannot be classified under any of the classifications above should be reported here.

Grade 1: Sector	Grade 2: Industry	Grade 3: Sub Industry
Materials	Chemicals	Commodity Chemicals
		Diversified Chemicals
		Fertilizers and Agricultural Chemicals
		Industrial Gases
		Specialty Chemicals
	Construction Materials	Construction Materials
	Containers and Packaging	Metal and Glass Containers
		Paper Packaging
	Metals and Mining	Aluminium
		Diversified Metals and Mining
		Gold
		Precious Metals and Minerals
		Steel
	Paper and Forest Products	Forest Products
		Paper Products
Industrials	Aerospace and Defence	Aerospace and Defence
	Building Products	Building Products
	Construction and Engineering	Construction and Engineering
	Electrical Equipment	Electrical Components and Equipment
		Heavy Electrical Equipment
	Industrial Conglomerates	Industrial Conglomerates
	Machinery	Construction and Farm Machinery and Heavy Trucks
		Industrial Machinery
	Trading Companies and Distributors	Trading Companies and Distributors
	Commercial Services and Supplies	Commercial Printing
		Diversified Support Services
		Security & Alarm Services
		Environmental and Facilities Services

		Office Services and Supplies
	Professional Services	
		Human Resource & Employment Services
		Research & Consulting Services
	Air Freight and Logistics	
		Air Freight and Logistics
	Airlines	
		Airlines
	Marine	
		Marine
	Road and Rail	
		Railroad
		Trucking
	Transportation Infrastructure	
		Airport Services
		Highways and Rail tracks
		Marine Ports and Services
Consumer Discretionary		
	Auto Components	
		Auto Parts and Equipment
		Tires and Rubber
	Automobiles	
		Automobiles Manufacturers
		Motorcycle Manufacturers
	Household Durables	
		Consumer Electronics
		Home Furnishings
		Homebuilding
		Household Appliances
		Housewares and Specialties
	Leisure Equipment and Products	
		Leisure Products
		Photographic Products
	Textiles, Apparel and Luxury Goods	
		Apparel, Accessories and Luxury Goods
		Footwear
		Textiles
	Hotels, Restaurants and Leisure	
		Casinos and Gambling
		Hotels, Resorts and Cruise Lines
		Leisure Facilities
		Restaurants
	Diversified Consumer Services	
		Education Services
		Specialised Consumer Services
	Media	
		Advertising
		Broadcasting
		Cable & Satellite
		Movies and Entertainment
		Publishing
	Distributors	
		Distributors
	Internet and Catalog Retail	
		Catalog Retail
		Internet Retail
	Multiline Retail	
		Department Stores
		General Merchandise Stores
	Specialty Retail	

		Apparel Retail
		Computer and Electronics Retail
		Home Improvement Retail
		Speciality Stores
		Automotive Retail
		Home Furnishing Retail
Consumer Staples		
	Food and Staples Retailing	
		Drug Retail
		Food Distributors
		Food Retail
		Hypermarkets and Super Centres
	Beverages	
		Brewers
		Distillers and Vintners
		Soft Drinks
	Food Products	
		Agricultural Products
		Packaged Foods and Meat
	Tobacco	
		Tobacco
	Household Products	
		Household Products
	Personal Products	
		Personal Products
Health Care		
	Health Care Equipment and Supplies	
		Health Care Equipment
		Health Care Supplies
	Health Care Providers and Services	
		Health Care Distributors
		Health Care Services
		Health Care Facilities
		Managed Health Care
	Health Care Technology	
		Health Care Technology
	Biotechnology	
		Biotechnology
	Pharmaceuticals	
		Pharmaceuticals
	Life Sciences Tools and Services	
		Life Sciences Tools and Services
Financials		
	Commercial Banks	
		Diversified Banks
		Regional Banks
	Thriffs and Mortgage Finance	
		Thriffs and Mortgage Finance
	Diversified Financial Services	
		Other Diversified Financial Services
		Multi Sector Holdings
		Specialised Finance
	Consumer Finance	
		Consumer Finance
	Capital Markets	
		Asset Management and Custody Banks
		Investment Banking and Brokerage
		Diversified Capital Markets
	Insurance	

		Insurance Brokers
		Life and Health Insurance
		Multi-line Insurance
		Property and Casualty Insurance
		Reinsurance
	Real Estate Investment Trusts (REITs)	
		Diversified REITs
		Industrial REITs
		Mortgage REITs
		Office REITs
		Residential REITs
		Retail REITs
		Specialised REITs
	Real Estate Management and Development	
		Diversified Real Estate Activities
		Real Estate Operating Companies
		Real Estate Development
		Real Estate Services
Information Technology		
	Internet Software and Services	
		Internet Software and Services
	IT Services	
		IT Consulting and Other Services
		Data Processing and Outsourced Services
	Software	
		Application Software
		Systems Software
		Home Entertainment Software
	Communications Equipment	
		Communications Equipment
	Computers and Peripherals	
		Computers Hardware
		Computers Storage and Peripherals
	Electronic Equipment, Instruments & Components	
		Electronic Equipment & Instruments
		Electronic Components
		Electronic Manufacturing Services
		Technology Distributors
	Office Electronics	
		Office Electronics
	Semiconductors and Semiconductor Equipment	
		Semiconductor Equipment
		Semiconductors
Telecommunication Services		
	Diversified Telecommunication Services	
		Alternative Carriers
		Integrated Telecommunication Services
	Wireless Telecommunication Services	
		Wireless Telecommunication Services
Energy		
	Energy Equipment and Services	
		Oil and Gas Drilling
		Oil and Gas Equipment and Services
	Oil, Gas and Consumable Fuels	
		Integrated Oil and Gas
		Oil and Gas Exploration and Production
		Oil and Gas Refining and Marketing
		Oil and Gas Storage and Transport

		Coal and Consumables
Utilities		
	Electric Utilities	Electric Utilities
	Gas Utilities	Gas Utilities
	Multi-Utilities	Multi-Utilities
	Water Utilities	Water Utilities
	Independent Power Producers and Energy Traders	Independent Power Producers and Energy Traders

## Appendix E: Standard & Poor's Rating Breakdown

If a rating for an instrument is not available, use the rating for the issuer instead.

Grade 1	Grade 2	Grade 3
Investment Grade	A- and above	AAA
		AA+
		AA
		AA-
		A+
		A
		A-
	BBB- to BBB+	BBB+
		BBB
		BBB-
Non Investment Grade	B- to BB+	BB+
		BB
		BB-
		B+
		B
		B-
	C- to CCC+	CCC+
		CCC
		CCC-
		CC+
		CC
		CC-
		C+
		C
		C-
Defaulted		
Not Rated		
Other		

Table 2: Mapping ratings from Moody's and Fitch IBCA to those of Standard and Poor's

Standard & Poor's	Moody's	Fitch IBCA
AAA	Aaa	AAA
AA+	Aa1	AA+
AA	Aa2	AA
AA-	Aa3	AA-
A+	A1	A+
A	A2	A
A-	A3	A-
BBB+	Baa1	BBB+
BBB	Baa2	BBB
BBB-	Baa3	BBB-
BB+	Ba1	BB+
BB	Ba2	BB
BB-	Ba3	BB-



B+	B1	B+
B	B2	B
B-	B3	B-
CCC+	Caa1	CCC+
CCC	Caa2	CCC
CCC-	Caa3	CCC-
CC	Ca	CC
C	C	C
D		D




## Appendix F: Regional Breakdown

Regional breakdown is based on classification adopted and maintained by IMF. For more information please visit [www.imf.org](http://www.imf.org). Please note that the website says that “*This classification is not based on strict criteria, economic or otherwise, and it has evolved over time*”. For Currency exposure please refers to Appendix G which focuses on Currencies rather than countries.

Grade 1: Continents	Grade 2: Economies	Grade 3: Countries
Global		
	Advanced Economies	
	Developing Economies	
Europe		
	Advanced Economies*	
		Austria
		Belgium
		Cyprus
		Czech Republic
		Denmark
		Estonia
		Finland
		France
		Germany
		Greece
		Iceland
		Ireland
		Italy
		Luxembourg
		Malta
		Netherlands
		Norway
		Portugal
		Slovak Republic
		Slovenia
		Spain
		Sweden
		Switzerland
		United Kingdom
		Other Advanced Economies Europe
	Developing Economies	
		Latvia
		Lithuania
		Bosnia and Herzegovina
		Bulgaria
		Croatia
		Hungary
		Poland
		Romania
		Russia
		Serbia
		Ukraine
		Other Developing Economies Europe
North America		
	Advanced Economies	
		Canada
		United States
		Other Advanced Economies N. America
	Developing Economies	
		Bermuda
		Cayman Islands
		Costa Rica

		Cuba
		Dominican Republic
		Jamaica
		Mexico
		Panama
		Other Developing Economies N. America
Asia and Oceania		
	Advanced Economies	
		Hong Kong
		Israel
		Japan
		Singapore
		South Korea
		Taiwan (Prov. Of China)
		Australia
		New Zealand
		Other Advanced Economies Asia
		Other Advanced Economies Oceania
	Developing Economies	
		China
		Georgia
		India
		Indonesia
		Iraq
		Kazakhstan
		North Korea
		Lebanon
		Malaysia
		Mongolia
		Pakistan
		Philippines
		Qatar
		Saudi Arabia
		Sri Lanka
		Thailand
		Turkey
		United Arab Emirates
		Vietnam
		Yemen
		Fiji
		Samoa
		Other Developing Economies Asia
		Other Developing Economies Oceania
South America and Africa		
	Advanced Economies	
		Other Advanced Economies S America
		Other Advanced Economies Africa
	Developing Economies	
		Angola
		Argentina
		Brazil
		Burkina Faso
		Chile
		Colombia
		Ecuador
		Egypt
		Ivory Coast
		Malawi
		Morocco



		Nigeria
		Peru
		South Africa
		Sudan
		Uruguay
		Venezuela
		Zambia
		Other Developing Economies S. America
		Other Developing Economies Africa
Other		
	Advanced Economies	
	Developing Economies	

\* Under the Sovereign and Interest Rate Exposure section we have introduced Euro as a country to enable reporting of exposure for Euro denominated investments.



## Appendix G: Currency Breakdowns

Grade 1: Continents/USD	Grade 2: Economies	Grade 3: Currencies
USD		
Europe		
	Advanced Economies	
		Euro (EUR)
		Czech Koruna (CZK)
		Danish Krone (DKK)
		Icelandic Króna (ISK)
		Norwegian Krone (NOK)
		Swedish Krona (SEK)
		Swiss Franc (CHF)
		Great Britain Pound Sterling (GBP)
		Other Advanced Economies Europe
	Developing Economies	
		Bosnia and Herzegovina Marka (BAM)
		Bulgaria Leva (BGN)
		Croatia Kuna (HRK)
		Hungary Forint (HUF)
		Poland Zloty (PLN)
		Romania New Lei (RON)
		Russia Ruble (RUB)
		Serbia Dinar (RSD)
		Ukraine Hryvnia (UAH)
		Other Developing Economies Europe
North America		
	Advanced Economies	
		Canada Dollars (CAD)
		Other Advanced Economies N. America
	Developing Economies	
		Bermuda Dollars (BMD)
		Cayman Islands Dollars (KYD)
		Costa Rica Colon (CRC)
		Cuba Pesos (CUP)
		Dominican Republic Pesos (DOP)
		Jamaica Dollars (JMD)
		Mexico Pesos (MXN)
		Panama Balboa (PAB)
		Other Developing Economies N. America
Asia and Oceania		
	Advanced Economies	
		Australia Dollars (AUD)
		Hong Kong Dollars (HKD)
		Israel New Shekels (ILS)
		Japan Yen (JPY)
		New Zealand Dollars (NZD)
		Singapore Dollars (SGD)
		South Korea Won (KRW)
		Taiwan (Prov. Of China) New Dollars (TWD)
		Other Advanced Economies Asia
		Other Advanced Economies Oceania
	Developing Economies	
		China Yuan Renminbi (CNY)
		Fiji Dollars (FJD)
		Georgia Lari (GEL)
		India Rupee (INR)
		Indonesia Rupiah (IDR)

		Iraq Dinar (IQD)
		Kazakhstan Tenge (KZT)
		North Korea Won (KPW)
		Lebanon Pound (LBP)
		Malaysia Ringgit (MYR)
		Mongolia Tugrik (MNT)
		Pakistan Rupee (PKR)
		Philippines Peso (PHB)
		Qatar Rial (QAR)
		Samoa Tala (WST)
		Saudi Arabia Riyal (SAR)
		Sri Lanka Rupee (LKR)
		Thailand Baht (THB)
		Turkey Lira (TRY)
		United Arab Emirates Dirham (AED)
		Vietnam Dong (VND)
		Yemen Rial (YER)
		Other Developing Economies Asia
		Other Developing Economies Oceania
South America and Africa		
	Advanced Economies	
		Other Advanced Economies S. America
		Other Advanced Economies Africa
	Developing Economies	
		Angola Kwanza (AOA)
		CFA Franc BCEAO (XOF)
		Egypt Pound (EGP)
		Malawi Kwacha (MWK)
		Morocco Dirham (MAD)
		Nigeria Naira (NRN)
		South Africa Rand (ZAR)
		Sudan Pound (SDG)
		Zambia Kwacha (ZMK)
		Argentina Pesos (ARS)
		Brazil Reais (BRL)
		Chile Pesos (CLP)
		Colombia Pesos (COP)
		Peru Nuevos Soles (PEN)
		Uruguay Pesos (UYU)
		Venezuela Bolivares Fuertes (VEF)
		Other Developing Economies S. America
		Other Developing Economies Africa
Other		
	Advanced Economies	
	Developing Economies	

## Appendix H: Vanilla Currency Options

Calls  
Puts  
American  
European  
Bermudan  
KNO – Knockout  
KKO – Kickout  
DKO – Double Knockout  
KOATE – Kick out at the End  
KNI – Knock In  
KKI – Kick In  
DKI – Double Knockin  
NOKI – Knock out Kick In  
NIKO – Knock In Kick out  
KIATE – Kick In at the End  
KOFWD – Knock out Forward  
KKIFWD – Kick Into Forward  
LKI – Lockin  
TCH – Touch  
THO – Touch with Outstrike  
LIO – Lockin with Outstrike  
DLI – Double Lockin  
DTH – Double Touch  
LKO – Lockout  
DLO – Double Lockout

## Appendix I: Exposure calculation for different instruments

FROM CESR's "Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS"

N = Number of contracts; NCS = Notional Contract Size; NV = Notional Value

- Bond Future:  $N * NCS * \text{market price of the CTD reference bond}$
- Interest Rate Future:  $N * NCS$
- Currency Future:  $N * NCS$
- Equity Future:  $N * NCS * \text{market price of underlying equity share}$
- Index Futures:  $N * NCS * \text{index level}$

### Plain Vanilla Options

- Bond Option:  $N * NCS * \text{market value of underlying CTD reference bond} * \text{delta}$
- Interest Rate Option:  $N * NCS * \text{delta}$
- Equity Option:  $N * NCS * \text{market value of underlying equity share} * \text{delta}$
- Currency Option:  $N * NCS * \text{delta}$
- Index Options:  $N * NCS * \text{index level} * \text{delta}$
- Options on Futures:  $N * NCS * \text{market value of underlying asset} * \text{delta}$
- Swaptions:  $NV * \text{delta}$
- Warrants and Rights:  $N * \text{market value of underlying referenced instrument} * \text{delta}$

### Swaps

- All Swaps: NV of underlying asset
- Contract for Differences:  $N * \text{market value of underlying referenced instrument}$
- FX forward: NV currency leg(s)
- Forward Rate Agreement: NV

### Embedded Derivatives

- Convertible Bonds:  $\text{Number of shares} * \text{market value of underlying reference shares} * \text{delta}$
- Credit Linked Notes:  $\text{Market value of underlying reference asset(s)}$
- Partly Paid Securities:  $\text{Number of shares/bonds} * \text{market value of underlying referenced instruments}$

### Non-Standard (Exotic) Derivatives

- Dividend Swaps:  $\text{Notional} * \text{Dividend Yield}$
- Variance Swaps (t refers to the time today, T the life of the option and 0 the start)  
$$\text{Variance Notional} = (\text{Vega notional}) / (2 * \text{strike})$$
$$\text{Vega notional} = \text{Notional value of profit/loss from 1\% change in volatility}$$
$$\text{Current Variance (t)} = (t/T) * (\text{realised volatility (0,t)})^2 + ((T-t)/T) * (\text{implied volatility (t,T)})^2$$
$$\text{Variance Swaps (without volatility cap): Variance Notional} * \text{Current Variance (t)}$$
$$\text{Variance Swaps (with volatility cap): Variance Notional} * \min [\text{Current Variance (t)}, (\text{Volatility cap})^2]$$
- Volatility Swaps  
$$\text{Current volatility (t) is a function of the realized and implied volatility.}$$
$$\text{Volatility Swaps (without volatility cap): Vega Notional} * \text{Current Volatility (t)}$$
$$\text{Volatility Swaps (with volatility cap): Vega Notional} * \min [\text{Current Volatility (t)}, \text{volatility cap}]$$
- Barrier (knock-in knock-out) Options  
$$\text{Maximum delta} = \text{highest (if positive) or lowest (if negative) value that the delta of the option may attain taking into account all possible market scenarios.}$$
$$\text{Barrier options: } N * NCS * \text{market value of underlying equity share} * \text{maximum delta}$$