Stefan M. Gavell
Executive Vice President and Head
of Regulatory and Industry Affairs

State Street Corporation
1 Lincoln Street
P.O. Box 5225
Boston, MA 02206-5225

Telephone: 617-664-8673
Facsimile: 617-664-4270
smgavell@statestreet.com

The Committee of European Securities Regulators
11-13 Avenue de Friedland
F- 75008 Paris

July 15, 2009

Response to Consultation Paper CESR/09-489 - CESR's Technical Advice at Level 2 on Risk Measurement for the Purposes of the Calculation of UCITS' Global Exposure

State Street Corporation, headquartered in Boston, U.S.A., specializes in providing institutional investors with investment servicing, investment management and investment research and trading. With $11.3 trillion in assets under custody and $1.4 trillion in assets under management, State Street operates in 27 countries and more than 100 markets worldwide. Our European-based workforce of over 6,400 employees provides institutional investors with local support and service from our offices in Austria, Belgium, France, Germany, Ireland, Italy, Luxembourg, the Netherlands, Poland, Switzerland and the United Kingdom.

Dear Sir/Madam:

State Street Corporation (State Street) would like to thank the Committee of European Securities Regulators (CESR) for the opportunity to comment on the proposed calculation of UCITS' global exposure. We would be happy to discuss with you, in further detail, any comments which you may have.

Sincerely,

Stefan M. Gavell

State Street Corporation's Response to CESR/09-489
CESR's Technical Advice at Level 2 on Risk Measurement for the Purposes of the Calculation of UCITS' Global Exposure
("the Paper")

INTRODUCTION

This memorandum contains State Street's response to CESR's consultation on the calculation of UCITS' global exposure. We appreciate the opportunity to comment on this important technical matter and look forward to engaging with CESR on its forthcoming suggestions for Level 2 measures later this year. As a large institutional asset manager and provider of fiduciary services across the EU, we would offer both general observations for CESR's consideration, as well as responses to the specific questions posed.

State Street welcomes CESR's efforts to **align supervisory practices** with regards to risk management, including the measurement of global exposure, leverage and counterparty risk associated with the use of financial derivatives instruments. As market practitioners, we currently face a wide range of different national approaches across EU Member States. More harmonized supervisory practices would benefit the European asset management industry, as well as the underlying investor. We therefore support CESR's work in this area and welcome the Paper as a first step towards introducing greater supervisory consistency. We nonetheless encourage CESR to go further in its forthcoming Level 2 advice by suggesting measures which would more closely align national practices.

Secondly, we recommend that CESR **add liquidity risk as an additional dimension** in its work on global exposure. As the events of the last year have shown, illiquidity can become a major factor in "non-normal markets". In particular, as market liquidity dries up, liquidity/market risk turns into credit risk, which may tie up substantial amounts of capital. Liquidity risk is, however, not currently included in the models outlined in the Paper, due to the assumption of "normal market conditions". We therefore suggest that stress tests should complement the proposed framework to take liquidity risk into account, with one of the objectives being to identify potential risk concentrations.

Thirdly, we are supportive of employing the **Value at Risk ("VaR") methodology** as a means of capturing the investment risk inherent in a portfolio under normal market conditions. We recognize, however, the limitations of VaR in capturing portfolio risk exposures under non-normal market conditions, and are supportive of the use of stress tests, back testing and scenario analysis to complement the VaR metric. Furthermore, the merits of

CVaR should be explored if it is appropriate and proportionate for the individual circumstances of the fund in question.

Fourthly, we believe that the risk management framework outlined by CESR with regards to the **Commitment Approach should be simplified**. Due to the complexity of the model outlined in the Paper, fund managers tend to use the sophisticated approach; this trend could be accelerated if the Commitment Approach is further complicated.

Finally, we would emphasize the importance of complementing the risk management system with **a sound collateral management framework**. If collateral is not managed properly, significant additional risks can arise. For instance, overcollateralization with a counterparty can result in additional credit and counterparty risks. We therefore recommend that CESR include a reference to collateral management in its suggested risk management principles.

1. Calculation of Global Exposure using the Commitment Approach

1.1. Context

1. Do you agree with the proposed approach in relation to the calculation of global exposure?

Overall, we agree with the proposed approach. However, as outlined in the introduction, we would encourage CESR to simplify its proposal. Furthermore, we suggest the introduction of liquidity risk as another possible element of global exposure.

In more general terms, it is important to note that the challenge with the accounting-based Commitment Approach is that it does not "speak" to the underlying investment risk and volatility. For instance, a fund may gain all of its additional derivative exposure by going long 30 year Treasuries or S&P futures, which have a volatility of 35% and 24% respectively. Alternatively, one may have gained their exposure by investing long a spread product, and short a government security to remove interest rate risk, creating very little in the way of actual investment exposure. Yet, these two examples are treated equally from an exposure standpoint under this approach.

2. Should the counterparty risk involved in an OTC derivative be considered in the calculation of global exposure?

No, it should not. Firstly, there are separate limits for counterparty risk within UCITS rules. Secondly, we fear that mixing counterparty risk exposure with market risk exposure might

confuse the issue. Counterparty risk is focused on the idiosyncratic risk of a counterparty defaulting. Market risk is focused on systematic risk factors that impact portfolio value.

1.2. Scope of the Commitment Approach

3. Do you agree with the proposed approach or can you suggest an alternative approach?

We agree with the general approach but, as outlined above, would welcome greater simplicity. For instance, calculating the exposure in an instrument with an embedded derivative is a very complex undertaking. As an example, if the derivative has a non-linear pay-off structure, whose value changes over time, the necessary analytics are very challenging to maintain.

4. Do you agree that the incremental exposure/leverage generated through techniques such as repurchase and securities lending transactions should be included in the calculation of global exposure?

In its Guidelines concerning eligible assets for investment by UCITS (Ref: CESR/07-044b), CESR states that "*if UCITS are authorized to use repurchase agreements or securities lending, these operations must be taken into account to calculate the global exposure of the UCITS*". We therefore generally agree that the incremental exposure/leverage generated through these two techniques should be taken into account.

We note, however, that the main aim of repurchase agreements and stock lending arrangements is to create an increase in income; they do not necessarily create leverage. We therefore encourage CESR to clarify the risk of collateral reinvestment related to these transactions. In our view, leverage only occurs when collateral is reinvested in an instrument with a significant risk of loss of capital.

With regards to stock lending, it would also be helpful to clarify how the collateral the fund receives when it lends securities should be taken into account.

1.3. Commitment Approach Calculation: General Principles

5. Does option 1 correctly assess the market risk linked to investment in the corresponding instruments, and if so please explain?

Option 2 should be the preferred approach. Option 1 does not properly take the loss to which the fund could be exposed into account; maximum loss is not appropriate for these instruments and a better alternative is available.

6. Does option 2 correctly assess the market risk linked to investment in the corresponding instruments, and if so please explain?

Option 2 does adequately capture market risk for written calls. It does not, however, do so for written puts. The puts will be exercised when the current value of the underlying is less than the strike price. The exposure reached using Option 2 could be significantly below the amount that the Fund is exposed to for these put options.

For example, take a Fund which has a written put (Fund has obligation to buy, other party has the option to sell) on a security with a strike price of $10 and a delta of 1 and the underlying has a current value of $3. In Option 2, the exposure would be the market value of the underlying adjusted by the delta - $3 (i.e. $3 * 1), while the fund would have the obligation to buy this security at the strike price of $10 (yielding an immediate loss for the fund of $7).

7. Do you have any comments or other suggestions regarding other possible measurement approaches?

In general, we believe that risk exposures should be viewed in terms of "maximum potential exposure" over a certain horizon or the life of the contract – which results in a "VaR" like computation. We would, however, also note the following in respect of other possible measurement approaches:

(i) All purchased options should be excluded from the calculation. Firstly, if they are out of the money, they will not be exercised and will therefore not create any additional incremental exposure. If, on the other hand, they are in the money, the maximum loss is zero (excluding the premium which is a one off payment.

(ii) Written calls should be treated as in Option 2 (i.e. market value of the underlying adjusted for delta).

(iii) Written puts should be treated as in Option 2 with one change; the exercise value of the option should be used instead of the market value of the underlying.

1.4. Commitment Approach Calculation – Conversion Method

8. Do you agree with the proposed approach, in particular the inclusion of a non-exhaustive list of financial derivatives?

We agree that a non-exhaustive list of financial derivatives would be beneficial, as long as it is consistently applied by all supervisors across the EU.

9. Do you have any alternative suggestions for the conversion method?

"Maximum potential loss" might be an alternative suggestion – but would be very difficult to implement.

10. Are there other types of financial derivative instruments which should be included in the paper?

We believe that the types of financial derivative instruments currently included in the Paper are a good starting point and we would encourage CESR to review this list on a regular basis.

11. Are you aware of any type of financial derivative instrument where global exposure cannot be calculated using the commitment approach?

We are not aware of any type of financial derivative instrument where global exposure cannot be calculated using the Commitment Approach.

1.5. Types of financial derivative instrument which are not included in the global exposure calculation

12. Do you agree with the approach regarding TRORS and derivatives with cash or an equivalent position?

Yes, we agree that if the swap is simply exchanging the return of the underlying (which is owned by the fund) for a separate return stream, this is a sensible approach.

1.6. Sensitivity approach for derivatives on interest rates in the commitment calculation

13. Do you agree with the proposed use of the sensitivity approach?

In general we agree. We note, however, that the Commitment Approach is intended to be a simpler method of calculating global exposure. We are concerned that the suggested approach adds another layer of complexity that will make it hard for practitioners to apply it in practice.

We would therefore ask CESR to suggest the sensitivity approach as purely voluntary, and explore how it might be simplified.

14. Do you consider that this should be compulsory for these types of derivative or optional for UCITS?

As outlined in our response to Q13, we do not believe that this approach should be compulsory.

15. Do you agree with the analysis of the sensitivity approach described?

Yes, we agree with the analysis.

16. What quantitative level would you consider appropriate for the default sensitivity?

A quantitative level is difficult to define in general terms. For example, a 2x default level for a 1year maximum sensitivity vs. a 30 year maximum sensitivity will have a very different risk exposure.

17. Do you have any additional comments or suggestions on this approach?

We do not have any additional comments.

1.7. Commitment Approach calculation: netting & hedging effects

18. Do you agree with the proposals regarding netting?

We agree with the proposals, but would welcome a clearer definition of netting to ensure supervisory consistency. Furthermore, we note that a long call and a short call with different expiry and strike may have equal and opposite delta today (hence exposures are netted), but this may change over time (for example due to exposure to gamma).

19. Do you have any additional comments and/or proposals?

We have concerns about permitting netting “regardless of the contracts' due date” since it cannot be guaranteed that there will always be a strong and negative correlation in all market conditions.

20. Do you consider that hedging as described above should be permitted?

Yes, we consider that hedging as described above should be permitted. It seems reasonable that if derivatives are to be used by UCITS funds, their use to hedge individual stock positions should be allowed.

21. Do you consider that the strong correlation requirement should be further clarified by means of a quantitative threshold e.g. 0.9?

The measurement of correlation is complex and varies over time. We do not think that it is appropriate to set hard correlation limits – they would cause daily monitoring challenges and would make the use of derivatives for hedging purposes difficult. Funds may engage in hedging for a number of reasons, including partial hedges.

22. Can you suggest a possible threshold e.g. for the minimum correlation between stock baskets? Please justify your answer based on relevant market data.

We do not believe that a threshold for correlation should be set.

1.8. Computation of concentration risk arising from the use of financial derivative instruments

23. Do you agree with this proposal?

Yes, we agree with the proposal.

2. Calculation of Global Exposure using the Value at Risk (VaR) Approach

2.1. Definition of VaR

24. Do you agree with this definition? Do you have any alternative suggestions?

Yes, we agree with the proposed definition.

2.2. Compliance of the VaR methods with the provisions of Directive 85/611/EC

25. Do you agree with the above approach?

Yes, we agree with the proposed approach.

26. What additional safeguards (if any) are necessary for UCITS which use VaR to calculate global exposure to ensure consistency with the total exposure limit of 200% of NAV?

Where relative VaR is used, the ratio limit of 2:1 is sufficient. Where absolute VaR is used, there does not appear to be anything at present which would ensure consistency with the total exposure limit of 200% of NAV. The Directive does not appear to be attempting to limit potential loss through derivatives to 100% of NAV (short positions with unlimited potential loss etc.) and the VaR limits along with stress tests etc. should provide sufficient levels of risk management. A solution would be to have separate, adequate "leverage" stress tests reportable to the funds' regulators.

2.3. Common VaR calculation models
2.4. Input used in the calculation of VaR
2.5. Organisation and means of a UCITS/asset management company using VaR

27. Do you agree with the approach outlined in paragraphs 2.3, 2.4 and 2.5?

We would ask CESR to clarify that the risk management unit should be operationally independent, but need not be an independent business entity.

Furthermore, we believe that the current frequency of updating (quarterly) is not sufficient, since this may fail to capture the current environment and lead the model to not correctly forecast existing conditions. A more frequent level of updating would mitigate this risk.

28. Do you have any comments or suggestions?

In an extreme market environment, there may be clustering of VaR breaches. This should not necessarily invalidate the VaR model since it is meant only to work under normal market conditions. Furthermore, a statistical back-testing methodology (hypothesis type testing) should be used.

29. Do you consider that VaR should be calculated at least daily?

For sophisticated UCITS, daily VaR should be sufficient. For non-sophisticated UCITS that use the Advanced Approach, a weekly or monthly calculation may suffice.

In addition, we recognize that varying VaR implementations may produce differing results, some more accurate than others. This is reflective of the type of VaR model employed (i.e. parametric vs. simulation), the look back period, and importantly the frequency with which

the model factors are updated (see also our reply to Question 27). We recommend a more frequent model update, so as to better capture current market conditions.

30. What type of criteria should competent authorities take into account in an assessment of the VaR Models?

We believe that the general criteria that should be applied is that the complexity of the fund should correspond to the VaR model.

31. Do you consider that VaR models should be approved by competent authorities?

No, we do not believe that it is necessary for the individual VaR models to be approved by competent authorities. Instead, they should focus on carefully reviewing the existing risk management process and satisfy themselves that the UCITS management company has adequate systems, controls and staff in place to understand the VaR model and its suitability to the fund in question.

2.6. Definition of the relative VaR
2.7. Limits of the relative VaR approach and proposed safeguards

32. Is the proposed 3-step relative-VaR approach adequate to limit the global exposure of a UCITS?

Yes, it is - but only relative to the reference portfolio.

33. Do you consider that the proposed limitations on the reference portfolio constitute reasonable and adequate safeguards to ensure that the relative VaR method does not result in the UCITS taking excessive risk or leverage?

In general terms, the proposed limitations seem adequate.

34. What additional safeguards (if any) do you consider necessary?

We believe that the appropriateness of different methods needs to be assessed according to the complexity of the fund and the strategy employed.

2.8. Definition of Absolute VaR

35. Can the absolute VaR be considered as an appropriate way of measuring global exposure?

VaR measures the risk exposure. In this sense, VaR is an appropriate risk measurement approach.

36. Do you consider that the proposed thresholds are suitable? Can you suggest other thresholds?

As a general observation, we believe that it is important to note that the threshold largely depends on the risk/return relationship of the portfolio.

37. What are your views on the application of stricter criteria to different types of asset classes e.g. bonds, equities?

Following on from our reply to Question 36, we believe that the levels should depend on the risk/return relationship of the strategy, as different asset classes will have different risk profiles for a given strategy within the asset class.

2.9. Additional safeguards to mitigate the risks related to the use of the absolute VaR approach

38. Do you consider the proposed safeguards, such as the use of appropriate additional risk management methods (stress-testing, CVaR) and the disclosure of the level of leverage, are sufficient safeguards when the absolute VaR method is used in the context of arbitrage strategies or complex financial instruments?

In general, we believe that the proposed safeguards are sufficient.

We recognize, however, that the following criticisms of absolute VaR have been made:

- Lack of sub-additivity for non-normally distributed asset returns, implying that the diversification of a portfolio is not always adequately represented by the VaR so that it is possible that a diversified portfolio with several assets might have a different VaR than the sum of the individual assets' VaR, which, in turn, might cause concentration risks to remain undetected.
- Under discrete return distributions, certain characteristics of the VaR function such as non-convexity and the existence of multiple local minima make a VaR optimization difficult.

Conditional Value at Risk (CVaR) might therefore be a more appropriate risk measure. Not only does it measure the tail risks of the portfolio distribution function (hence giving an answer to the question of "how bad is a bad event"), it is also a sub-additive measure and can be used to solve linear optimization problems. It should be noted, though, that CVaR is also a more conservative risk measure than the VaR.

39. Should UCITS using strategies that are potentially highly leveraged under the absolute VaR method be subject to specific marketing provisions, either at the level of the UCITS (minimum initial investment) or during the marketing process?

Yes.

40. Can you suggest alternative safeguards and/or requirements to avoid UCITS engaging in strategies which generate high levels of leverage?

We do not believe that alternative requirements on high levels of leverage necessarily lead to lower risks. What is important is that a fund that uses leverage has appropriate systems and controls in place, as well as sufficiently sophisticated risk measurement methodologies.

3. OTC Counterparty Risk Exposure

3.1. Background and Introduction
3.2. OTC counterparty risk calculation methodology

41. Do you agree with the proposed method for calculating counterparty exposure?

The use of counterparty risk weightings is a concept borrowed from bank capital adequacy standards, where credit risk is weighted according to various credit risk categories. The transfer of this concept to counterparty risks for investment funds seems somewhat arbitrary. The real exposure of the UCITS fund to the counterparty is the mark-to-market amount of the OTC derivative, so it seems reasonable to use this amount for calculating the counterparty exposure of the fund.

The proposed approach will also have the effect of increasing collateral requirements for some funds however.

42. Can you suggest an alternative method?

No, we do not have any other suggestions.

43. Do you agree with the approach for netting arrangements?

Yes. Encouragement of netting on a wider European basis would be a positive development. According to analysis by PwC, only Luxembourg, Ireland and Germany currently use netting arrangements.

44. Do you consider that additional netting rules should apply?

Netting contracts should only qualify if the UCITS fund has obtained reasoned legal opinions stating that the form of contract, in the event of a legal challenge, would be found by the relevant courts to be the net sum of all positive and negative market values of contracts included in the netting agreement.

3.3. Treatment of collateral received

45. Do you agree with the proposed approach to agree a set of principles in relation to acceptable collateral to reduce counterparty exposure? Do you have alternative suggestions?

The concept of having principles for risk management for a UCITS fund is a new development, departing from a strict, rules-based system. It therefore needs to be clarified how flexible these principles would be and how they would be interpreted without jeopardizing regulatory convergence. It is worthy of note that greater monitoring of collateral quality will result from the increased range of collateral requirements.

46. Do you consider that rather than following principles based approach specific instruments that can be used as eligible collateral should be identified?

Given the range of possible instruments that could be used as collateral, a principles-based approach to what constitutes eligible collateral seems preferable.

47. Should collateral be UCITS compliant in terms of asset eligibility and diversification?

The role of collateral is as a risk mitigator and the question of whether such collateral is UCITS compliant is not relevant.

3.4. The treatment of collateral passed

48. Do you agree that collateral passed to a derivative counterparty should be included in either the 5%/10% OTC counterparty limit or the 20% issuer concentration limit?

Yes. As an exposure is created that generates a risk-of-loss of value to the UCITS, any collateral passed should be captured on a net-basis either in the issuer concentration limit of 20% or in the 5%/10% OTC counterparty limit. However, we would encourage CESR to consider whether such an inclusion should only be required if the safe-keeping arrangements for the collateral do not provide for the segregation from proprietary assets.

49. Do you have any other suggestions as to how such collateral passed should be treated?

No, we do not have any other suggestions.

3.5. Counterparty limits

50. What areas of further work should be carried out with regard to this?

There needs to be greater clarity in relation to what components of derivative transactions should be included in the issuer concentration limit of 20%.

Also, for exchange traded derivatives, a set 'initial margin' has to be transferred or pledged in favor of the clearing broker. We would welcome a clarification as to whether this initial margin should be part of the counterparty limit of 5%/10% or the issuer concentration limit of 20%.

4. Sophisticated/Non-Sophisticated UCITS

51. Do you agree with the proposal to abandon the use of the term sophisticated and non-sophisticated UCITS?

Yes, we agree. The most important principle is that the risk modeling used should be appropriate to the type of fund.

52. If you object to this proposal could you please provide reasons for this view?

We agree with this proposal.