

Paris, 17th July 2009

**CESR's technical advice at level 2 on Risk Measurement for the  
purpose of the calculation of UCITS' global exposure**

**CESR/09-489**

**BNP Paribas Securities Services contribution**

**Response sent by 15<sup>th</sup> July 2009**

## **General comments**

1. BNP Paribas Securities Services welcomes the opportunity to comment the CESR's technical advice at level 2 on Risk Measurement for the purposes of the calculation of UCITS' global exposure. We have already largely contributed to the consultations and calls for evidence launched by the CESR on the UCITS IV Directive, through professional associations such as the EBF (European Banking Federation) and the AFTI (French Association of Securities Professionals) or through individual responses.
2. BNP Paribas Securities Services, as part of the BNP Paribas Group, is highly involved in investment fund activities all over the world for asset services, custody and depositary functions. Regarding risk measurement for the purposes of the calculation of the UCITS' global exposure, we are mainly concerned when appointed as depositary of UCITS funds. In respect to the transposition of the UCITS Directive in most EU Member States, the depositary has to perform an oversight function that consists in particular to ensuring that the management company complies with provisions of the Directive in terms of internal organisation and risk management procedures. This duty contributes to achieving the objective of an effective investor protection.
3. We are also appointed by management companies as an external service provider for the calculation of data for the production of regulatory reporting to the national competent authorities and that use the VaR calculation models. We have developed a strong expertise in this area, which allows management companies to comply with the provisions of the Directive on risk management principles and to guarantee that the VaR calculation is performed by a unit that is independent of the units in charge of managing and marketing the UCITS.
4. Globally BNP Paribas Securities Services supports the proposals made by the CESR on risk measurement methods in view to make some recommendations on level 2 measures for the UCITS IV Directive. We are of the opinion that the different methodologies proposed in this document to calculate the global exposure of an UCITS fund are relevant to ensure a satisfactory monitoring of risks associated with investments made by the asset manager. However we also estimate that CESR should be more specific in the conditions in which these methods can be used and/or in the criteria to be applied according to certain circumstances.
5. In specific comments below on questions raised by CESR, we have only focused on the questions for which it considers that additional requirements are necessary for the definition of appropriate implementing measures.

## **Specific comments**

### **1.1 Context**

Questions 1 to 2

1. Do you agree with the proposed approach in relation to the calculation of global exposure ?
2. Should the counterparty risk involved in an OTC derivative be considered in the calculation of global exposure ?

6. Yes, no specific comments on this part.

### **1.2 Scope of the Commitment Approach**

Questions 3 to 4

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

7. Yes, no specific comments on this part.

### **1.3 Commitment Approach Calculation : General Principles**

Questions 5 to 7

5. Does option 1 correctly assess the market risk linked to investment in the corresponding instruments, and if so please explain ?
6. Does option 2 correctly assess the market risk linked to investment in the corresponding instruments, and if so please explain ?
7. Do you have any comments or other suggestions regarding other possible measurement approaches ?

8. We estimate that the second option is the most relevant to assess the market risk linked to investment in the corresponding instruments. The option 1 seems to be a low risk assessment as the maximum loss taken into account would be the premium of the option while the real exposure could be faced if the option is exercised. The option 2 that consists in converting the option into the underlying instrument is indeed the right option for calculating realistic exposure and taking into account the delta is even better.

### **1.4 Commitment Approach Calculation – Conversion Method**

Questions 8 to 11

8. Do you agree with the proposed approach, in particular the inclusion of a non-exhaustive list of financial derivatives ?
9. Do you have any alternative suggestions for the conversion method ?
10. Are there other types of financial derivative instruments which should be included in the paper?
11. Are you aware of any type of financial derivative instrument where global exposure cannot be calculated using the commitment approach?

9. We support the approach proposed by CESR concerning the inclusion of a non-exhaustive list of financial derivatives. We suggest to add the following financial derivative instruments into the list : swaptions, basket CFDS, swaps with embedded derivatives, index CDS, and structured notes. CESR should give its view on how monitoring the commitment approach for these instruments.

10. For CDS, the commitment approach is not the relevant method to calculate the global exposure as standard algorithms used for monitoring this type of financial instruments are not applicable with the commitment approach.

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

Question 12

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

11. Yes, no specific comment on this part.

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

Questions 13 to 17

13. Do you agree with the proposed use of the sensitivity approach?
14. Do you consider that this should be compulsory for these types of derivative or optional for UCITS?
15. Do you agree with the analysis of the sensitivity approach described?
16. What quantitative level would you consider appropriate for the default of sensitivity?
17. Do you have any additional comments or suggestions on this approach?

12. We agree with the proposed use of the sensitive approach and with the analysis of the sensitivity described. This should be optional for UCITS and the quantitative level for the default sensitivity should be low.

## 1.7 Commitment Approach calculation: netting& hedging effects

Questions 18 to 22

- 18. Do you agree with the proposals regarding netting?
- 19. Do you have any additional comments and/or proposals?
- 20. Do you consider that hedging as described above should be permitted?
- 21. Do you consider that the strong correlation requirement should be further clarified by means of a quantitative threshold e.g.0.9?
- 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.

- 13. We support the proposals made by CESR regarding netting and suggests applying this method for netting cash positions and positions in similar economic sectors.
- 14. We agree with the possibility to allow hedging as described in the technical advice. In addition we estimate that the correlation factor should be further detailed and should be scalable according to the level of risk allowed by each type of UCITS fund.
- 15. The correlation factor should be further detailed and should be scalable according to the level of risk allowed by each type of UCITS
- 16. At a minimum, a very aggressive threshold of 0.1 could be used.

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

Question 23

- 23. Do you agree with this proposal?

- 17. Yes, no specific comments on this part.

## **Calculation of Global Exposure using the Value at Risk (VaR) Approach**

### **2.1 Definition of VaR**

#### **Question 24**

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

18. Yes, we agree with the above definition of VaR.

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

#### **Question 25**

25. Do you agree with the above approach?

19. It is important to note that VaR is appropriate to measure Market Risk. The evaluation of Counterparty Risk and Liquidity risk should be measured separately as it is described in section 3.

20. VaR is complementary to the commitment approach. These two approaches will diverge especially on Long/Short portfolios, because the commitment approach takes the absolute values of exposures whereas VaR takes into account the diversification effect. For example a long position and a short position in assets that are positively correlated will offset and produce low VaR. On the contrary a long position and a short position in assets that are negatively correlated will produce high VaR.

#### **Question 26**

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?

21. The reason why the commitment approach and the VaR approach differ is that the commitment approach sums up the absolute values of exposures, whereas the VaR approach sums the exposures without absolute values.

22. A possible way to make consistent the VaR approach and the commitment approach would be to compute two VaR. One VaR on the short part of the portfolio and one VaR on the long part of the portfolio. The exposure of the portfolio would then be the sum of the two VaR. As explained above, the commitment approach systematically over-values the portfolio risk. This makes the VaR approach mandatory to give a realistic view of the portfolio risk.

## 2.5 Organisation and means of a UCITS/asset management company using VaR

### Question 27

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

23. Yes, we consider it mandatory to associate VaR with Backtesting and Stress Testing. The pricing models also have to be fully validated. As detailed below in response to Question 30, these methodologies are quite complex, and could reveal meaning less if not used in the proper way depending on the portfolio composition. In this respect, we recommend to create an official nomenclature to categorize methodologies by product types.

### Question 28

28. Do you have any comments or suggestions?

24. To ensure the independence of the VaR calculation, we recommend to create a Chinese wall between the UCIT manager and the VaR provider: choice of models, computations, interpretation of results.

### Question 29

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

25. Yes, VaR should be calculated on a daily basis. The most relevant horizon for daily calculation is a 1 Day VaR. The back testing should also be run on a daily basis. We recommend daily back-testing on a 1 Day VaR, because in this case the clean back testing and dirty back testing are equivalent. In other terms, on a 1 Day VaR, there is no assumptions to make about the composition of the portfolio. A 20 Day VaR (for example) requires strong assumptions about the evolution of the portfolio composition over the next 20 Days.

### Question 30

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

26. The simplest way to validate VaR would be to enumerate the possible models and describe the fields of application. Four main blocks could be isolated : VaR methodology, factors identification, pricing models and market data.

27. Three different VaR methodologies can be : historical, MonteCarlo or parametric.

28. Factors identification : it is critical that VaR captures all market risks embedded in the portfolio. Consequently, the methodology of factors identification should also be validated with the cartography of market data that should be taken as factors by instrument type and an eEx-post validation of factors with Rsquared calculation.
29. Pricing models : the validity of VaR depends on the accuracy of models used. So a list of models should be built and associated to a corresponding list of types of products. The models should not be too complicated, otherwise the “risk of model” would be too important, and they would be uneasy to audit.
30. Market Data: the models documentation should detail the market-data feed process. The historical data set should be well specified in order to have homogeneous results (for example, 3 years of weekly history of data). The allowed weighting methods of historical data should also be detailed.

Question 31

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

31. We support the approval of the VaR models by competent authorities but also consider that the full production process should be validated.

## 2.7 Limits of the relative VaR approach and proposed safeguards

Question 32

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

32. We recommend to use a quantitative criteria to validate the reference portfolio. Namely, we recommend the calculation of the Tracking Error, Beta or Correlation and the monitoring of its level. In this configuration, the change of reference portfolio would be triggered by a limit breach.

Question 33

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?

33. In terms of market risk the methodology is acceptable. However other risks that are not covered by the benchmark approach (for example liquidity risk) should be kept in mind.

Question 34

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

34. We are of the opinion that the relative VaR should never stand alone. The Absolute VaR is mandatory to give a realistic view of the risk.

## 2.8 Definition of Absolute VaR

Question 35

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

35. In order to have a VaR that takes correctly long/short positions, we suggest to compute one VaR for the Long side of the portfolio and one VaR for the Short side of the portfolio, and sum the two VaR (as suggested in response to Question 26).

Question 36

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

36. If the UCIT doesn't have any maturity, we recommend to compute a 1 Day VaR because it is the only horizon that doesn't make any assumption on the portfolio composition (as mentioned in Question 29). If the UCIT has a maturity then the VaR at maturity should be computed. If the UCIT has an investment horizon, the VaR at this horizon should be computed.

Question 37

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

37. Please refer to answers to Question 30.

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

Question 38

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 ?

38. We propose to define a reference portfolio in all cases. As proposed in the German regulation, the portfolio without derivatives is always a natural candidate for the reference portfolio. This reference portfolio allows to determine the leverage effect. The definition of the Leverage is the following :  $\text{Leverage} = \text{VaR}(\text{Portfolio}) / \text{VaR}(\text{Portfolio without derivatives})$ .
39. We are of the opinion that the definition of Stress Testing scenarios (as presented in this document) could be improved. The quality of a Stress test depends on the risk factors identification. If this process is not properly defined, it is easy to omit adverse scenarios. The Factors identification proposed (in Question 30) gives a solution for this issue by identifying the Factors by product types.
40. We wish to emphasize that Stress Testing and CVaR should be used for all UCITS, not only for the sophisticated ones.

Question 39

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?

41. No specific comment on this question.

Question 40

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

42. Leverage and Stress testing should be documented, depending of the type of funds and on the type of instruments contained in the fund (see response to Question 30 above).

### **3 OTC Counterparty Risk Exposure**

#### **3.2 OTC Counterparty risk calculation methodology**

Questions 41 to 44

- 41. Do you agree with the proposed method for calculating counterparty exposure?
- 42. Can you suggest an alternative method?
- 43. Do you agree with the approach for netting arrangements?
- 44. Do you consider that additional netting rules should apply?

43. We agree with the method proposed by CESR. However it is mentioned that OTC contracts have to be fully liquid, which is sometimes hard to fulfill in a practical manner. In addition haircuts depending on the counterparty rating should be used.

44. Regarding the approach for netting arrangements, available cash should also be taken into account in order to net counterparty risk.

#### **3.3 Treatment of collateral received**

Questions 45 to 47

- 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?
- 46. Do you consider that rather than following principles based approach specific instruments that can be used as eligible collateral should be identified?
- 47. Should collateral be UCITS compliant in terms of asset eligibility and diversification?

45. We support the set of high-level principles recommended by CESR as they are very closed to the market practices and should be easily applicable.

46. In our opinion, if a list of specific instruments is identified for as eligible collateral it should not be limited to government bonds and to cash but should be extended to high rated issuer equities. In addition haircuts are important in order to rate collateral and see how the risk is hedged and at which level.

47. We consider that collateral should be UCITS compliant in terms of asset eligibility and diversification.

#### **3.4 The treatment of collateral passed**

Questions 48 to 49

48. Do you agree that collateral passed to a derivative counterparty should be included in the either the 5%/10% OTC counterparty limit or the 20% issuer concentration limit?
49. Do you have any other suggestions as to how such collateral passed should be treated?

48. We are in favour in the first option that consists in including the collateral in the 5%/10% OTC counterparty limit. In this respect we suggest to have a defensive approach instead of a very risky one that would consist in concentrating all risks with the same counterparty.

### 3.5 Counterparty limits

Question 50 to 52

50. What areas of further work should be carried out with regard to this?
51. Do you agree with the proposal to abandon the use of the term sophisticated and non-sophisticated UCITS?
52. If you object to this proposal could you please provide reasons for this view?

49. We do not have specific comments on this section.