

COMMISSION de SURVEILLANCE du SECTEUR FINANCIER

In case of discrepancies between the French and the English text, the French text shall prevail

Luxembourg, 30 May 2011

To all Luxembourg management companies within the meaning of Chapter 15 of the Law of 17 December 2010 on undertakings for collective investment, SIAG within the meaning of Article 27 of the Law of 17 December 2010 on undertakings for collective investment, as well as Luxembourg UCITS

CSSF CIRCULAR 11/512 as amended by Circular CSSF 18/698

- Concerns:**
- **Presentation of the main regulatory changes in risk management following the publication of CSSF Regulation 10-4 and ESMA clarifications;**
 - **Further clarifications from the CSSF on risk management rules;**
 - **Definition of the content and format of the risk management process to be communicated to the CSSF.**

Ladies and Gentlemen,

This Circular aims to present the main changes which were made to the regulatory framework with respect to risk management following the publication of CSSF Regulation 10-4 and the issue by the European Securities and Markets Authority (hereafter "ESMA") of several documents on risk management, and to provide clarifications on the risk management rules which are set out in these documents. Its objective is to define the content and the format of the risk management process to be communicated to the *Commission de Surveillance du Secteur Financier* (Commission for the Supervision of the Financial Sector) (hereafter the "CSSF").

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I. Context

The Law of 17 December 2010 on undertakings for collective investment (hereafter the "2010 Law") as well as CSSF Regulations 10-4 and 10-5 on the implementing measures related thereto (all published in the *Mémorial A* – No. 239 of 24 December 2010) were brought to your attention by CSSF Circular 11/498. Please be reminded that this circular aims to summarise the structure of the 2010 Law, the main innovations introduced by Directive 2009/65/EC and the 2010 Law, as well as transitional provisions of the 2010 Law. It also draws your attention to the ESMA Guidelines relating to Directive 2009/65/EC.

In respect of risk management, CSSF Regulation 10-4 (hereafter the "CSSF Regulation") and the following publications of ESMA¹ provide the framework for the provisions of the 2010 Law:

- the document entitled "CESR's Guidelines on Risk Measurement and the Calculation of Global Exposure and Counterparty Risk for UCITS (ref.: CESR/10-788)" dated 28 July 2010 (hereafter "ESMA Guidelines 10-788");
- the document entitled "Guidelines to competent authorities and UCITS management companies on risk measurement and the calculation of global exposure for certain types of structured UCITS (ref.: ESMA/2011/112)" dated 14 April 2011 (hereafter "ESMA Guidelines 2011/112");
- the document entitled "Risk management principles for UCITS (ref.: CESR/09-178)" dated February 2009 (hereafter "ESMA risk management principles 09-178").

As mentioned in its first Article, the CSSF Regulation lays down the implementing measures of the 2010 Law on the risk management process referred to in Article 42, paragraph (1) of this law, and in particular on the criteria for assessing the adequacy of the risk management process employed by the management company and the investment company that has not designated a management company respectively, as well as the risk management policy and the processes relating to this policy and the arrangements, processes and techniques for risk measurement and management relating to such criteria.

As to the ESMA publications, they accompany and clarify the provisions of the CSSF Regulation in respect of risk management as well as the calculation of global exposure and counterparty risk for UCITS.

II. Scope

Given the possibility for a management company responsible for the management of UCITS in accordance with Directive 2009/65/EC, to carry out collective portfolio management activities on a cross-border basis, the provisions of this Circular have to be applied taking into account the provisions of Title D "The right of establishment and the

¹ Available on the website of ESMA, <http://www.esma.europa.eu>.

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freedom to provide services" of Chapter 15 of the 2010 Law, in particular Articles 116 and 122.

These articles clarify in particular in which cases the rules of the home or host Member State are applicable, at the level of the management company or the UCITS.

Taking into account the above provisions, the Luxembourg legislative and regulatory requirements can be stated as follows:

- the organisational requirements (especially delegation arrangements, risk management processes, prudential and supervisory rules, the procedures referred to in Article 109 and the management company's notification requirements) provided for by Luxembourg law and regulations are applicable to management companies governed by Luxembourg law subject to Chapter 15 of the 2010 Law (hereafter "management companies"), for all the UCITS managed by them (whether subject to Luxembourg law or the law of another Member State, whether in the form of a common fund (*fonds commun de placement*) or an investment company) as well as to investment companies that have not designated a management company in accordance with Article 27 of the 2010 Law (hereafter "SIAG");
- requirements linked to the incorporation and operation of UCITS provided for by Luxembourg law and regulations of which (amongst others), the rules applicable to the investment policies and restrictions (in particular the calculation of global exposure and leverage effect) as well as disclosure and reporting obligations of UCITS (in particular concerning the prospectus, the key investor information and the periodic reports) only apply to UCITS governed by Luxembourg law, *i.e.* Luxembourg UCITS in the form of a common fund or an investment company managed by Luxembourg management companies or by management companies from another Member State, as well as Luxembourg UCITS in the form of a SIAG respectively.

In this context, the provisions of this Circular apply:

- on the one hand to management companies managing UCITS and to SIAG (in the latter case, the term "management company" extends to the term "investment company") regarding organisational requirements and in particular regarding risk management processes; and
- on the other hand to Luxembourg UCITS governed by Part I of the 2010 Law for the rules of incorporation and operation of UCITS.

Accordingly, all requirements in respect of risk management processes, as set out in this Circular, apply both to management companies within the meaning of Chapter 15 of the 2010 Law and to SIAG within the meaning of Article 27 of the 2010 Law.

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III. Presentation of the main changes of the regulatory framework regarding risk management following the publication of the CSSF Regulation and the ESMA clarifications

III.1 Risk management policy, risk coverage and risk measurement

III.1.1 Risk management policy

Under Articles 10, 13 and 43 of the CSSF Regulation, the senior management of management companies shall, in particular, adopt a risk management policy which shall be implemented by a permanent risk management function. It shall be documented and adequate and shall permit to identify, measure, manage, control and report on the risks to which the UCITS they manage are or might be exposed.

Under Article 43 of the CSSF Regulation, the risk management policy of management companies shall address at least the techniques, tools and arrangements that enable them to comply with the obligations set out in Articles 45 and 46 of the CSSF Regulation (covering the measurement and management of risk on the one hand, and the calculation of global exposure, on the other hand), and the allocation of responsibilities for risk management within the management company. The nature, scale and complexity of the activities of management companies and the UCITS they manage shall be considered within this context.

This risk management policy shall be drafted, ideally in the form of a separate document. However, in applying the principle of proportionality, it can also be documented in the form of a manual on the basis of existing rules and procedures. In this case, this manual shall enable the easy identification of the roles, responsibilities and risk management processes.

The CSSF would like to remind you that the implementation of this policy and related processes shall be entrusted to a permanent risk management function which shall be independent, from a hierarchical and functional point of view, of operational units or, where it is neither appropriate nor proportionate to have an independent permanent risk management function, management companies must nevertheless be able to demonstrate that appropriate safeguards have been taken against conflicts of interest to allow the independent exercise of risk management activities.

The independence of the permanent risk management function shall not, however, prevent the risk management activities from being closely associated with the investment process. Management companies shall ensure the regular communication between the permanent risk management function and the portfolio managers in order to enable the efficient conduct of risk management activities.

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Management companies shall conduct a periodic review of the adequacy and effectiveness of the risk management policy and the compliance therewith. In case of deficiencies, the appropriate remedial action shall be taken (Article 44 of the CSSF Regulation). The permanent risk management function shall report regularly to the board of directors, the supervisory function (if it exists) and to the senior management on the adequacy and effectiveness of the risk management process, indicating particularly whether the appropriate remedial actions were taken in case of deficiencies.

III.1.2 Risk coverage

The risk management policy shall permit to evaluate market risks (including global exposure), liquidity, counterparty as well as all other risks (including operational risks) which may be significant for UCITS, considering the investment objectives and strategies, the styles or methods of management (*e.g.* management based on an algorithm) adopted for managing the UCITS and the processes of assessment, and which may thus directly affect the interests of the unitholders of the managed UCITS.

III.1.3 Risk measurement

Risk measurement techniques, which shall be appropriately documented, shall include both quantitative measures covering quantifiable risks and qualitative methods. They shall also allow an adequate assessment of the concentration and interaction of risks at the level of the portfolio of the managed UCITS.

Where a quantitative risk measurement is not possible or produces unreliable results, management companies shall, where appropriate, supplement the results by integrating other pertinent elements in order to obtain a complete valuation and assessment of the risks incurred by UCITS.

For the purposes of risk measurement, management companies shall particularly rely on sound and reliable data and manage the risks associated with the use of risk measurement techniques and models (model risk). In keeping with the requirements of the use of VaR for global exposure, they shall also carry out tests, after the development of such models and thereafter continuously, to verify their robustness and reliability. Back testing to assess the quality of model predictions provides a method of assessing and monitoring the quality of the models.

Finally, management companies shall, where appropriate, conduct periodic stress tests and scenario analyses to address risks arising from potential changes in market conditions that might have an adverse impact upon the managed UCITS.

III.1.4 Liquidity risk

Regarding more specifically liquidity risk, management companies shall, in accordance with Article 45(3) and (4) of the CSSF Regulation, employ an appropriate liquidity risk

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management process, supported, where appropriate, by a programme of stress tests, in order to ensure that all UCITS they manage are able to comply at any time with the repurchase obligation laid down by the 2010 Law. To this end, management companies shall ensure in particular that the liquidity profile of the investments of the UCITS is in conformity with the redemption policy mentioned in the fund regulation, the instruments of incorporation or the prospectus.

III.2 Risk profile and limits system

Article 13(3)(c) of the CSSF Regulation requires that the permanent risk management function advises the board of directors on the definition of the risk profile of each managed UCITS. Thus, for each managed UCITS, a risk profile resulting from a process of risk identification which takes into account all risks that may be material for the managed UCITS, shall be defined and approved by the board of directors of the management company.

The process of risk identification shall not be a static exercise, but shall be reviewed periodically to take into account changes in market conditions or the investment strategy of the UCITS.

Moreover, management companies shall (in accordance with Article 45(2)(d) of the CSSF Regulation, and as further clarified in respect of the VaR by point 2 of Box 10 of ESMA Guidelines 10-788) establish, implement and maintain a documented system of internal limits regarding the risks which may be material for the UCITS they manage, while ensuring the compliance of this system of internal limits with the risk profile of each UCITS.

The legal limits on global exposure and counterparty risk shall be taken into account in the UCITS' risk limit system, as mentioned in Article 13(3)(b) of the CSSF Regulation.

Consistency between the current levels of risk incurred by each managed UCITS and the risk profile of the UCITS shall be monitored and controlled by the permanent risk management function which shall provide reports to the board of directors, the supervisory function (if it exists) and senior management, notably in accordance with Article 13(3) of the CSSF Regulation.

Management companies shall put in place appropriate procedures so as to take rapid remedial action, in the best interests of unitholders, in case of breaches of the limits (effective or foreseeable).

III.3 Delegation of risk management activities

Management companies may, in accordance with Article 10(2)(d) of the CSSF Regulation, specified by Section II.7 of CSSF Circular 11/508 and Article 26(4) of the same regulation, contractually delegate the risk management activity (entirely or a part

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thereof) to specialist third parties. In this case, they shall show the required due skill, care and diligence when entering into, managing and terminating any such arrangements.

In particular, before entering into such arrangements, management companies shall take the necessary measures in order to verify that the third parties have the necessary competence and capacity to perform the risk management activities reliably, professionally and efficiently. In addition, management companies shall establish methods for the ongoing assessment of the quality of the services provided. These measures and methods shall, in all cases, allow management companies to ensure that the third parties are capable of performing the risk management activities in accordance with the applicable legal and regulatory requirements.

Furthermore, management companies shall ensure:

- the continuity of the risk management activities in case of problems relating to the delegation (*e.g.* breaches of contract, urgent need to revoke the mandate, material breaches by the third party);
- that they are informed by the third parties of any development which might have a serious impact on the ability of the latter to perform the risk management activities efficiently and in accordance with the applicable legal and regulatory requirements;
- that appropriate measures are taken if it is evident that the third parties can no longer perform the risk management activities efficiently and in accordance with the applicable legal and regulatory requirements, including terminating the contract if necessary.

In any event, the delegation to third parties neither relieves management companies in any way of their responsibility in relation to the adequacy and efficiency of the risk management policy, nor does it relieve them in terms of monitoring the risks associated with the activities of the UCITS they manage.

Management companies shall, in accordance with Article 6 of the CSSF Regulation, maintain the necessary resources and expertise to meet their obligations.

III.4 Determination of global exposure as per Article 42(3) of the 2010 Law

III.4.1 General principles

Management companies shall determine the global exposure of UCITS at least once a day in accordance with Article 46(2) of the CSSF Regulation which is further clarified by point 1 of Box 1 of ESMA Guidelines 10-788. According to these guidelines, the limits on global exposure shall be complied with on an ongoing basis. Thus, depending on the investment strategies pursued by certain UCITS, it is possible that management companies have to carry out intra-day calculations.

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The new regulatory provisions no longer provide for a classification of UCITS as "sophisticated" or "unsophisticated". However, management companies shall assess the risk profile for each UCITS on the basis of the investment policy and strategy (including the use made of financial derivative instruments) in order to choose an appropriate method of calculating global exposure. Article 46(3) of the CSSF Regulation and Box 1 of ESMA Guidelines 10-788 (as well as the accompanying explanatory text) determine the scope of this assessment.

In accordance with Article 46(3) of the CSSF Regulation, management companies shall calculate global exposure by either using the commitment approach or the VaR approach or "any other advanced risk measurement methodologies as may be appropriate". In respect of this last option, and in accordance with point 2 of Box 1 of ESMA Guidelines 10-788, any other methodology can be used by management companies only where ESMA has published guidelines relating thereto.

III.4.2. Determination of global exposure using the commitment approach

Please be reminded that Article 47 of the CSSF Regulation specifies the conditions for the calculation using the commitment approach. While mainly only a few changes were introduced by Boxes 2 and 4 of ESMA Guidelines 10-788 on rules governing the commitment approach in relation to CSSF Circular 07/308, certain selective changes (non-exhaustive list) are as follows:

- the conversion methodology for "standard" financial derivative instruments is always the market value of the equivalent position in the underlying asset of the financial derivative instrument, the latter may be replaced by the notional value or the price of the futures in the case where these values lead to a more conservative result (point 1 of Box 2 of ESMA Guidelines 10-788);
- where any currency financial derivative instruments has two legs that are not in the base currency of the UCITS, both legs must be taken into account in the total commitment calculation (point 5 of Box 2 of ESMA Guidelines 10/788);
- the conversion methodology for "standard" financial derivative instruments also applies to contracts with a limited risk profile (such as long positions on options to buy or sell and protection buyer, respectively, through credit default swaps) (point 6 of Box 2 of ESMA Guidelines 10/788);
- a financial derivative instrument does not need to be taken into account when calculating the total commitment if the combined holding of a financial derivative instrument relating to a financial asset and cash which is invested in risk-free assets is equivalent to the direct holding of the given financial asset and the financial derivative instrument does not generate any incremental exposure and leverage or market risk. (Box 4 of ESMA Guidelines 10-788).

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Moreover, the rules governing netting and hedging arrangements to be taken into account when calculating the total commitment have been set out by ESMA in Boxes 5 to 8. In particular, management companies may use (subject to compliance with certain conditions described in Box 7) the optional duration-netting rules. This regime allows to take into account the sensitivity ("duration") of an interest rate financial derivative instrument compared to the reference sensitivity ("target duration") of the UCITS which has to be defined on the basis of its investment strategy and risk profile.

III.4.3. Optional regime for the calculation of global exposure using the commitment approach for certain types of structured UCITS

ESMA Guidelines 2011/112 specify the methods of risk measurement and the calculation of global exposure for certain types of structured UCITS and thus complete ESMA Guidelines 10-788. Indeed, they define an optional regime for the calculation of global exposure using the commitment approach for certain types of structured UCITS. This regime consists of calculating global exposure by using the commitment approach for every scenario to which investors may be exposed at any given time. The global exposure limit set out in Article 42(3) of the 2010 Law shall be complied with for each scenario.

UCITS may only choose this optional regime if they comply with a list of well-defined criteria referred to in "Guideline 1" of Section II ("Policy Approach") of the document. Numerical examples are presented in this section to illustrate how this regime should be used in practice.

"Guideline 2" of this section specifies the transparency requirements at the level of the prospectus for structured UCITS making use of this optional regime.

III.4.4. Determination of global exposure using the VaR approach

In respect of Section III.2 above and pursuant to point 2 of Box 10 of ESMA Guidelines 10-788, management companies shall set a maximum VaR limit for each UCITS in accordance with the risk profile. Indeed, there are circumstances where, on the basis of the defined risk profile, management companies must set a maximum limit that is lower than the regulatory threshold (*i.e.* 200% in the case of a relative VaR or 20% in the case of an absolute VaR) set out in ESMA Guidelines 10-788 for ensuring consistency between the maximum limit and the risk profile.

Please be reminded that in case of the use of a confidence interval and/or a holding period other than those mentioned under point 2 of Box 15 of ESMA Guidelines 10-788, the maximum limit for absolute VaR (*i.e.* 20%) shall be adjusted in accordance with points 3 and 4 of this Box.

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In respect of the relative VaR, ESMA Guidelines 10-788 (Sections 3.2 and 3.3) provide clarification on the reference portfolio, in terms of the inclusion of financial derivative instruments, risk profile, maintenance and documentation.

In respect of absolute VaR, ESMA Guidelines 10-788 strictly limit the level of the absolute VaR to 20% (where this VaR is determined on the basis of a 99% confidence interval and a holding period of 1 month/ 20 days), without the possibility of derogation.

Sections 3.6 and 3.7 of ESMA Guidelines 10-788 on the minimum requirements governing the use of the VaR approach contain several changes, the main ones of which are set out below (non-exhaustive list):

- Management companies shall carry out a back testing programme (Box 18) at least monthly (and not quarterly as specified in CSSF Circular 07/308) and shall report at least on a quarterly basis to the senior management if the number of "overshootings" for the most recent 250 business days exceeds 4 (for management companies determining the VaR based on a 99% confidence interval). This report shall contain an analysis and explanation of the reasons for "overshooting" as well as a statement of what remedial actions, if any, were taken to improve the accuracy of the model;
- the rules for stress testing (Boxes 19 to 21) are further clarified by ESMA by distinguishing the general provisions, quantitative and qualitative requirements;
- following initial development, as well as any significant change, the VaR model shall be subject to a review² by an independent party (*e.g.* internal or external auditor, third party, risk management unit) of the building process to ensure that the model is robust and reliable and adequately captures all material risks (point 3 of Box 22);
- the permanent risk management function shall perform ongoing documented review of the VaR model (including but not limited to back testing) and shall be adjusted where necessary if the results of the review suggest this (point 4 of Box 22);
- the documentation requirements in relation to the VaR model are specified (point 5 of Box 22);
- the risk management function shall regularly monitor the leverage resulting from UCITS (point 1 of Boxes 22 and 23);
- Management companies shall, where appropriate, considering the risk profile and investment strategy pursued, supplement the VaR/stress-testing framework with other risk indicators (point 2 of Box 23).

² ESMA Guidelines refer to "validation".

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Regarding transparency in relation to risk at the level of the prospectus and annual report, ESMA Guidelines 10-788 (Boxes 24 and 25) set out the risk exposure requirements for UCITS.

III.5. Counterparty risk linked to OTC financial derivative instruments and to efficient portfolio management transactions

III.5.1. OTC financial derivative instruments

The counterparty risk linked to OTC financial derivative instruments shall be calculated, pursuant to Article 48 of the CSSF Regulation, as the positive mark-to-market value of the contract. The consideration of potential future credit risk (using add-on factors) and of the weighting factor depending on the credit quality of the counterparty (typically 20% or 50%) is no longer permitted.

The CSSF would like to point out (in accordance with Article 48 of the CSSF Regulation) that when calculating the UCITS' exposure to a counterparty, management companies may, on the one hand, base themselves on the net derivative positions, provided that they have the means to legally enforce netting arrangements with the counterparty on behalf of the UCITS and, on the other hand, reduce the exposure through the receipt of collateral.

Regarding collateral, ESMA Guidelines 10-788 only set out in Box 26 the general principles related thereto (e.g. in respect of liquidity, valuation and issuer credit rating).

Exposure in relation to the initial margins posted by UCITS to a broker and with variation margins to be received by UCITS from the broker within the context of financial derivative instruments dealt in on a regulated market or OTC derivatives, shall be included within the limits of 10% and 5% respectively of the counterparty risk provided for in Article 43(1) of the 2010 Law if there are no arrangements that protect UCITS against the risk of insolvency of the relevant broker (point 1 of Box 27 of ESMA Guidelines 10-788).

III.5.2. Securities lending and reverse repurchase agreement transactions / repurchase agreement transactions

The net exposure of UCITS to counterparties in respect of securities lending or reverse repurchase agreement transactions / repurchase agreement transactions shall be taken into account within the limit of 20% provided for in Article 43(2) of the 2010 Law pursuant to point 2 of Box 27 of ESMA Guidelines 10-788.

III.6. Valuation of OTC derivatives

While taking into account the principle of proportionality, management companies shall, pursuant to Article 49 of the CSSF Regulation, establish, document, implement and

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maintain arrangements and procedures which ensure appropriate, transparent and fair valuation of OTC derivatives.

Moreover, the CSSF Regulation stipulates that specific duties and responsibilities in respect of the valuation of OTC derivatives shall be entrusted to the permanent risk management function, at least pursuant to Articles 13(3)(f) and 49(3) of the CSSF Regulation.

In this context, the valuation of OTC derivatives is now governed by the following legal and regulatory provisions:

- Articles 41(1)(g) and 42(1) of the 2010 Law;
- paragraphs (3) and (4) of Article 8 of the Grand Ducal Regulation of 8 February 2008 on the clarification of certain definitions;
- the guidelines laid down in point 21 of the CESR document entitled "CESR's guidelines concerning eligible assets for investment by UCITS, Ref. : CESR/07-044b, March 2007 (updated September 2008)" attached to CSSF Circular 08/380;
- Articles 13(3)(f) and 49 of the CSSF Regulation.

IV. Further clarifications from the CSSF on risk management rules

IV.1. Limitation of Counterparty Risk

IV.1.1. Scope of Article 43(1) of the 2010 Law

Pursuant to Article 43(1) of the 2010 Law, the counterparty risk linked to OTC derivatives concluded by a UCITS may not exceed 10% of its assets when the counterparty is a credit institution referred to in Article 41(1)(f) of the 2010 Law or 5% of its assets in other cases.

The CSSF would like to clarify that OTC derivative transactions negotiated on a regulated market whose clearing house complies with the three following conditions may, in principle, be excluded from the calculation of the use of the counterparty risk limitations:

- backing by an appropriate completion guarantee;
- daily valuation of the market values of the positions on financial derivative instruments; and
- making margin calls at least once a day.

As already mentioned in Section III.5.1., exposure in relation to the initial margin posted by UCITS to a broker, and variation margin to be received by UCITS from the broker relating to financial derivative instruments dealt in on a regulated market or OTC derivatives, shall be included in the counterparty risk limits of 10% and 5% respectively as set out in Article 43(1) of the 2010 Law if there are no arrangements that protect

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UCITS against the insolvency risk of the relevant broker (point 1 of Box 27 of ESMA Guidelines 10-788).

IV.1.2. Quality of the counterparty to OTC derivatives

The counterparties to OTC derivative transactions shall be institutions subject to prudential supervision and belonging to the categories approved by the CSSF in accordance with Article 41(1)(g) of the 2010 Law (*i.e.* credit institutions, investment firms). Moreover, they shall be specialised in this type of transactions.

IV.2. Limitation of the counterparty risk associated with OTC derivatives through the receipt of collateral

The CSSF would like to clarify that the list referred to in Section II (b) ("Receipt of an appropriate guarantee") of CSSF Circular 08/356, which includes the types of collateral which are eligible for the purpose of limiting the counterparty risk linked to efficient portfolio management transactions also applies within OTC derivative transactions. Notwithstanding the above, the rules outlined in point 1 of Box 26 of ESMA Guidelines 10-788 shall also be complied with.

The CSSF would like to draw your attention to points 2 and 3 of Box 26, and in particular to the need to define and to apply appropriate and prudent discounts.

Moreover, collateral received by a UCITS, other than cash, cannot be sold, reinvested or pledged. Cash collateral can only be reinvested in risk-free assets which are eligible under the 2010 Law, *i.e.* eligible assets which do not provide a yield greater than the risk-free rate.

IV.3. Counterparty risk associated with efficient portfolio management transactions

This Circular replaces the following paragraph of Section II (a) ("Limitation to the counterparty risk") of CSSF Circular 08/356

"The risk exposure to a single counterparty of the UCITS arising from one or several securities lending transactions, sale with right of repurchase transactions and/or reverse repurchase / repurchase transactions may not exceed 10% of its assets when the counterparty is a credit institution referred to in Article 41, paragraph (1), point f) of the Law of 20 December 2002, or 5% of its assets in other cases."

by the following text:

"The net exposures (*i.e.* the exposures of the UCITS less the collateral received by the UCITS) to a counterparty arising from securities lending transactions or reverse repurchase / repurchase agreement transactions shall be taken into account in the 20%

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limit provided for in Article 43(2) of the 2010 Law pursuant to point 2 of Box 27 of ESMA Guidelines 10-788."

Consequently, the specific limits of 5%/10%, as indicated in CSSF Circular 08/356 are no longer applicable.

IV.4. Limitation of concentration risk

IV.4.1. General principles

In accordance with Article 42(3) of the 2010 Law, a UCITS may invest in financial derivative instruments, provided that the exposure to the underlying assets does not exceed, in aggregate, the investment limits laid down in Article 43 of this Law.

In principle, this provision only covers financial derivative instruments the underlying of which (*e.g.* title deeds) involves an issuer- risk.

Box 27 of ESMA Guidelines 10-788 corroborates Article 48(5) of the CSSF Regulation according to which the financial derivative instruments shall be taken into account (for the determination of the use of concentration limits) by all UCITS (regardless of the determination method used to calculate global exposure) through the commitment approach, where appropriate, or through the maximum potential loss approach. More specifically, if the methodology of conversion of financial derivative instruments into the equivalent position in the underlying asset (*i.e.* commitment approach) proves to be inadequate, due, for example, to the complexity of the relevant financial derivative instrument, the approach of the maximum potential loss linked to that financial derivative instrument shall be used. The latter is then considered as the maximum threshold for assessing the loss risk which the UCITS may suffer on that position in case of default by the issuer.

Units of UCIs and UCITS referred to in Article 41(1)(e) of the 2010 Law shall also be taken into account as underlying assets of financial derivative instruments pursuant to point 4 of Box 27 of ESMA Guidelines 10-788.

The financial derivative instruments embedded ("embedded derivatives") in transferable securities or money-market instruments shall, for the purposes of this section, be isolated according to the methods described above and taken into account in the determination of the use of the risk concentration limits.

IV.4.2. Netting the positions for the determination of the use of concentration limits in respect of financial derivative instruments

The CSSF would like to point out that UCITS may, when determining the use of the concentration limits referred to in the 2010 Law, benefit from possible netting effects subject to compliance with the following rules:

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- positions in financial derivative instruments may be netted, provided that they refer to the same underlying asset, without necessarily having the same maturity date;
- positions in financial derivative instruments (*e.g.* linked to a transferable security) may be netted with positions held directly by the UCITS provided that they refer to the same underlying asset;
- an underlying asset is considered as identical when it is issued by the same legal entity, it belongs to the same asset class (*e.g.* title deeds; debt instruments) and has the same priority in terms of repayment;
- the netting can only be done for equal commitment amounts determined on the basis of the commitment approach;
- the netting process shall be closely monitored by the permanent risk management function.

The netting rules as detailed above, vary from those applicable to the global exposure determination (see Box 6 of ESMA Guidelines 10-788) by the fact that the concept of "identical underlying asset" is interpreted in a slightly different way.

IV.4.3. Specific provisions for index-based financial derivative instruments

Pursuant to Article 42(3) of the 2010 Law and point 6 of Box 27 of ESMA Guidelines 10-788, UCITS may, in determining the use of concentration limits, exclude financial derivative instruments based on an index:

- the composition of which is sufficiently diversified;
- which represents an adequate benchmark for the market to which it refers;
- which is published in an appropriate manner.

IV.4.4. Reinvestments of collateral received by the UCITS within OTC derivative transactions and efficient portfolio management transactions

a) Reinvestment of collateral received within OTC derivative transactions

Reinvestments of cash collateral received within OTC derivative transactions shall be taken into account, pursuant to point 2 of Box 27 of ESMA Guidelines 10-788, within the diversification limits applicable under the 2010 Law.

b) Reinvestment of collateral received within efficient portfolio management transactions

This Circular repeals the following paragraph of Section III ("Reinvestment of cash provided as a guarantee") of CSSF Circular 08/356:

"The reinvestment of cash received as a guarantee is not subject to the diversification rules generally applicable to UCITS, provided however, that the

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UCITS shall avoid an excessive concentration of its reinvestments, both at the issuer level and at the instrument level. Reinvestments in assets referred to in items a) et d) above are exempt from this requirement."

This paragraph is replaced by the following provision, pursuant to point 2 of Box 27 of ESMA Guidelines 10-788.

"Exposures arising from the reinvestment of collateral received by the UCITS within securities lending transactions, sale with right of repurchase transactions and reverse repurchase agreement transactions / repurchase agreement transactions shall be taken into account within the diversification limits applicable under the 2010 Law."

IV.5. Risk transparency at the level of the prospectus

Box 24 (further clarified in points 76 and 77 of the explanatory text) of ESMA Guidelines 10-788 provides that UCITS include the following information in the prospectus:

- global exposure determination methodology, making a distinction between the commitment approach, the relative VaR or the absolute VaR approach;
- the expected level of leverage, as well as the possibility of higher leverage levels (for UCITS using a VaR approach);
- information on the reference portfolio for UCITS using the relative VaR approach.

The CSSF would like to provide some clarification in this regard:

IV.5.1. Presentation of information in the prospectus

UCITS shall present this information clearly and precisely in the prospectus.

This information shall be included in the prospectus during an update of the same which shall occur by **31 December 2011** at the latest.

IV.5.2. Assessment and disclosure of the expected level of leverage

In view of ESMA Guidelines 10-788 (Boxes 2 and 9), the CSSF specifies that the leverage shall be determined by taking into account both the financial derivative instruments concluded by UCITS, the reinvestment of collateral received (in cash) in relation to efficient portfolio management transactions (as provided for in Box 9 of the aforementioned ESMA Guidelines) as well as any use of collateral within any other efficient portfolio management transaction in particular in respect of any other securities lending or reverse repurchase transaction of collateral.

Point 3 of Box 24 states in particular that the sum of the notionals of the financial derivative instruments shall be used as a reference for the determination of leverage to be

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disclosed in the prospectus. In respect of financial derivative instruments which do not have a notional value, UCITS shall, in principle, base themselves on the market value of the equivalent position in the underlying asset.

The CSSF would like to point out that the commitment approach as set out in Article 47 of the CSSF Regulation (and further specified in ESMA Guidelines 10-788, in Boxes 2 to 9) may also be used.

In view of this possibility, the leverage calculation method (sum of notionals or commitment approach), shall be specified conjointly with the leverage level.

Explanations in respect of the leverage level can be provided by the UCITS.

In this context, the CSSF would like to further remind you, that the prospectus shall, pursuant to Article 47 of the 2010 Law, include a prominent statement specifying whether financial derivative transactions may be used for hedging purposes or in furtherance of the investment objectives as well as the possible effects of using financial derivative instruments on the risk profile. In addition, if the net asset value of a UCITS is susceptible to increased volatility as a result of the composition of the portfolio or the management techniques that may be used, the prospectus has to contain a prominent statement drawing attention to this characteristic of the UCITS.

IV.5.3. Content of information on the reference portfolio in respect of UCITS using the relative VaR

UCITS using the relative VaR approach for the global exposure calculation shall include information on the reference portfolio in the prospectus. This information shall allow investors to have a clear and precise idea of the risk profile of this reference system.

In the case where the reference portfolio is based on an index or a combination of indices, UCITS shall in particular include either the name of the index (or indices) in the prospectus (with, where appropriate, the proportion of each index), or information on the index or (indices) which describes the elements determining the risk profile of this portfolio, like for example:

- the type of transferable securities (*e.g.* shares, bonds);
- the country / geographical area;
- the economic sector;
- the type of issuer (*e.g.* firms, sovereigns, credit institutions);
- the market capitalisation (*e.g.* large, medium, small);
- the credit rating;
- the proportion of assets with the same characteristics.

In the case where the reference portfolio is based on a pool of assets, the management company shall include information based on these elements.

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In addition, UCITS shall assess the interest for investors to have additional information on the reference portfolio either directly in the prospectus, by reference to a website mentioned in the prospectus or by providing it, free of charge, at the management company or the SIAG.

IV.6. Risk transparency at the level of the annual report

Box 25 of ESMA Guidelines 10-788 provides that UCITS shall communicate the following information in the annual report:

- the method used to calculate global exposure, making a distinction between the commitment approach, the relative VaR or the absolute VaR approach;
- information on the reference portfolio for UCITS using the relative VaR approach;
- information on the VaR limit including (at least) the lowest, the highest and the average utilisation during the last financial year, as well as on the type of model (*e.g.* historical simulation, Monte-Carlo simulation) and on parameters (*e.g.* confidence interval, holding period, observation period);
- the leverage level reached during the last financial year (for UCITS using the VaR for the global exposure determination).

This information shall appear for the first time in the annual report of the UCITS relating to the financial year ending on 31 December 2011. In respect of numerical information to be provided for this first time, the observation period shall cover the period from 1 July 2011 to 31 December 2011.

Clarifications provided in the preceding section relating to transparency at the level of the prospectus are also applicable to the annual report regarding the leverage level and information on the reference portfolio (in the case of relative VaR).

UCITS may provide information on the use of the VaR either by reference to the regulatory limits (*i.e.* 200% in the case of relative VaR or 20% in the case of absolute VaR) or by reference to the maximum limits defined, or finally by reference to these two types of limits. In any case, UCITS shall clearly indicate the limits in respect of which they express the levels of VaR reached. Moreover, if UCITS decide to disclose information on the maximum limits, they shall include the levels of the defined limits in the annual report.

Information on the VaR (minimum, maximum, average) shall be based on all the VaR calculated during the financial year.

Regarding the leverage level, UCITS may, for example, base their information on the average of the leverage effects observed (and followed) during the last financial year. Input data shall be issued at least twice a month.

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V. The risk management process to be communicated to the CSSF

V.1. Content and format of the risk management process

Pursuant to Article 42 (1) of the 2010 Law, the CSSF requires management companies to provide certain information in relation to the risk management policy in order to identify, measure, manage, control and report on the risks that may be material for the UCITS they manage.

Management companies shall observe, in particular, the following rules when completing and communicating the risk management process to the CSSF:

- a. **the risk management process shall strictly follow the format laid out in the Appendix;**
- b. **comments, explanations, descriptions and demonstrations provided shall be succinct;**
- c. all the sections indicated in the Appendix shall be completed and, where appropriate, if one of them is not applicable (*e.g.* the VaR approach for calculating the global exposure), then the heading shall be kept and "not applicable" shall be entered under the heading;
- d. the process shall be transmitted electronically to opc@cssf.lu;
- e. an update of the risk management process shall be transmitted to the CSSF "at the latest five months following"³ the closing date of the management company's financial year; this transmission shall be done, at the latest, one month after this closing date;
- f. the process shall, at any time, cover all managed UCITS (including their sub-funds).

In the case of significant amendment to the risk management policy (*e.g.* new financial products), management companies shall update the risk management process and notify the CSSF by transmitting an updated version of this process.

Prior to introducing a new UCITS to the CSSF (including a sub-fund), management companies shall ensure in particular the adequacy of the risk management policy (and therefore the risk management process).

If this is the case, management companies shall confirm this to the CSSF in writing when introducing the new UCITS file by referring to the latest version of the risk management process transmitted.

If it is not the case, (*e.g.* lack of cover of the UCITS by the risk management policy), management companies shall adapt their risk management policy to reflect those changes in the risk management process and then transmit this document to the CSSF together with the other elements of the file regarding the new UCITS.

³ amended by Circular CSSF 18/698

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V.2 Specific provisions in respect of the risk management process

The risk management process as set out in Section V.1. and in accordance with the format presented in the Appendix shall be communicated to the CSSF by 31 December 2011 at the latest (except in relation to newly created management companies as set out in more detail in Section V.2.1. below).

V.2.1. *New management companies within the meaning of Chapter 15 of the 2010 Law*

Every new management company subject to Chapter 15 of the 2010 Law shall, as part of the authorisation file to be filed with the CSSF, submit a risk management process in accordance with the format (as well as the rules relating thereto) presented in the Appendix.

V.2.2. *Management companies currently subject to Chapter 13 of the 2002 Law*

Management companies that are currently subject to Chapter 13 of the Law of 2002 Law shall, pursuant to CSSF Circular 11/508, and by **1 June 2011 at the latest**, submit an updated authorisation file complete with the new elements required by the 2010 Law and the CSSF Regulation.

More specifically, these management companies shall conduct an update of their risk management process, taking into account not only the provisions of CSSF Circular 07/308 (*i.e.* information required in application of Section V), but also the requirements of Articles 42 to 50 of the CSSF Regulation and the ESMA Guidelines.

As indicated above, these management companies shall communicate a risk management process in accordance with the format (as well as the rules relating thereto) presented in the Appendix for the first time by **31 December 2011** at the latest.

VI. Transitional, repealing and final provisions

VI.1. Transitional provisions

The 2010 Law entered into force on 1 January 2011.

Given that the 2010 Law entered into force prior to the deadline for the transposition of Directive 2009/65/EC of 1 July 2011, the text of this Law contains transitional provisions, the most important, in the context of this Circular, being the following:

- UCITS subject to Part I of the 2002 Law and management companies subject to Chapter 13 of the 2002 Law and established before the entry into force of the 2010 Law (*i.e.* prior to 1 January 2011) have the option, until 1 July 2011, to remain subject to the 2002 Law or to be subject to the 2010 Law, from 1 July 2011, these UCITS and management companies shall *ipso jure* be governed by this new Law.

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- UCITS subject to Part I of the 2002 Law and management companies subject to Chapter 13 of the 2002 Law and established between 1 January and 1 July 2011 have the option, until 1 July 2011, to be subject either to the 2002 Law or to the 2010 Law; from 1 July 2011, these UCITS and management companies shall *ipso jure* be governed by the new Law.

Considering the transitional provisions of the 2010 Law, UCITS and management companies respectively, which are considering remaining subject to the 2002 Law until 1 July 2011, shall *ipso jure* be governed by the CSSF Regulation, the ESMA publications as well as this Circular as from 1 July 2011.

Thus, CSSF Circular 07/308 remains applicable until 1 July 2011 to UCITS and management companies, respectively, which have decided to remain subject to the 2002 Law until 1 July 2011.

The CSSF Regulation, the ESMA publications as well as this Circular shall be applicable, however, directly to UCITS and management companies governed by Chapter 13 of the 2002 Law which (during the transitional period between the date of entry into force of the 2010 Law and 1 July 2011) decide to be subject to the provisions of the 2010 Law.

All UCITS and management companies are *ipso jure* governed by the CSSF Regulation, the ESMA publications and this Circular as from 1 July 2011.

VI.2 Repealing and final provisions

CSSF Circular 07/308 is repealed with effect from 1 July 2011, with the exception of the provisions of Section V of this circular which remain in force until 31 December 2011.

This Circular enters into force with immediate effect.

Yours faithfully,

COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER

Claude SIMON
Directeur

Andrée BILLON
Directeur

Simon DELCOURT
Directeur

Jean GUILL
Directeur Général

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Appendix: Content of the risk management process to be communicated to the CSSF

1. Governance and organisation of the risk management function.

1.1. Simplified organisation chart of the risk management function

1.1.1. A general organisation chart of the risk management function must be provided and shall:

- mention the parties involved in the management of the main risk types (the overall information is included under 1.4);
- indicate the number of people in each team involved in risk management;
- mention the main reporting lines (*e.g.* hierarchy, occupational structure, risk management committee, valuing committee, management committee, boards of directors, senior management, etc.), the overall information is included under 1.2;
- highlight the possible risk management activities delegated to third parties (the names of such third parties shall be mentioned);
- describe each situation, where several situations are to be taken into account (*e.g.* as a result of different managers or different funds or types of funds), and clearly indicate the extent of each situation.

1.1.2. The organisation chart shall be commented on and include a description of the relevant persons' experience. The name and CV of the person, at the level of the company, in charge of the risk management function shall be provided.

1.2. Governance structure

1.2.1. The governing bodies (notably the senior management, committees and counsel) involved in risk management shall be described in the table below.

Bodies	Role/responsibilities	Composition/members	Frequency of meeting
Counsel X			
Counsel Y			
Senior management			

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Committee ABC			
...			

- 1.3. Pursuant to Article 13 of the CSSF Regulation, the independence of the permanent risk management function shall be demonstrated. It shall be established (where appropriate) that adequate protection measures have been taken against conflicts of interest so that risk management activities can be carried out independently.
- 1.4. Risk management policy
 - 1.4.1. The risk management policy shall be described and shall specify the risks covered. Article 43 of the CSSF Regulation refers to market, liquidity and counterparty risks, as well as all other risks, including operational risks, which may be material for UCITS (including risks which may be material for UCITS and which are not specifically addressed in the following sections of this Appendix).
 - 1.4.2. Compliance of the risk management policy with all the provisions set forth in Article 43 of the CSSF Regulation shall be demonstrated.
 - 1.4.3. The main procedures which the risk management process include shall be listed (see Article 43 of the CSSF Regulation).
- 1.5. Permanent risk management function
 - 1.5.1. The role of the permanent risk management function shall be described, and a brief description of how it meets each requirement of Article 13(3) of the CSSF Regulation shall also be made (*i.e.* control of risk levels, reporting⁴).
 - 1.5.2. The process for establishing the risk profiles of each UCITS shall be described.
- 1.6. The process for assessing, controlling and periodically reviewing the adequacy and effectiveness of the risk management policy shall be described, together with the relevant reporting to the senior management, the board of directors and, where it exists, the supervisory function. A copy of each information report as at the closing date of the financial year of the management company shall be attached. In this respect, Circular

⁴ For the sake of consistency, a reference to point 1.7 below shall be made for a description of the information reports on risk management.

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CSSF 11/508 requires that the regular reports to be made by the risk management function shall be communicated to the CSSF at least once a year. This communication of information shall ideally be made using the aforementioned Appendix.

- 1.7. The regular reports on risk management shall be described in the table below; as for the risks covered by the risk management policy (see under 1.4) and at least for the risks included in the table, a description of the information reports on the management of such risks shall be made. A copy of each information report as at the closing date of the financial year of the management company shall be attached. In this respect, Circular CSSF 11/508 requires that the regular reports to be made by the risk management function shall be communicated to the CSSF at least once a year. This communication of information shall ideally be made using the aforementioned Appendix.

Risks covered	Report title	Issuing body	Recipients***	Frequency
Market*				
Liquidity				
Counterparty				
Operational				
Credit				
Compliance**				

* Spread risk included

** Monitoring of investment restrictions

*** Names of persons or bodies and respective status

- 1.8. The IT systems used for risk management shall be described using the table below, and a description of such systems shall be made with respect to the risks covered by the risk management policy (see under 1.4) and at least for the risks included in the table.

Risks covered	IT system	Person in charge of the setup***	Person in charge of risk monitoring
Market*			
Liquidity			
Counterparty			
Operational			
Credit			
Compliance*			
Valorisation **			

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* Monitoring of investment restrictions

** See below under Sections 8 and 10.

***Parameters include for example, the development, the maintenance and the management of the IT System

- 1.9. Agreement(s) with one or several specialised third parties on the carrying-out of risk management activities.
 - 1.9.1. The measures taken to ensure that such third party(ies) has (have) the ability and capacity to perform the risk management activities reliably, professionally and effectively shall be described.
 - 1.9.2. The prudential supervision status, if any, of the third party(ies) involved in the carrying out of risk management activities shall be given.
 - 1.9.3. The existence of contracts pertaining to the agreement(s) with one or several third parties on the carrying out of risk management activities shall be confirmed.
 - 1.9.4. The ongoing assessment of the standard of performance of the third party(ies) shall also be described.
 - 1.9.5. It shall be confirmed that the risk management process includes answers to the requirements listed in this Appendix, taking into account those risk management activities which are governed by agreement(s) with one or several third parties and, where appropriate, on the basis of the procedures, systems and methods used by such third party(ies).
 - 1.10. The policy and validation process of any new product, instrument, investment process and new activity shall be described.
 - 1.11. A description of how the risk management activities are in the scope of the Compliance function and the internal audit function shall be made.
- 2. Determination and monitoring of global exposure**
- 2.1. General issues
 - 2.1.1. A description and a justification (taking into account the investment strategies of the managed UCITS) of the frequency of global exposure calculation shall be required.
 - 2.1.2. The self-assessment process of the UCITS risk profile, which ensures that the approach for calculating the global exposure is appropriate, shall be made.

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- 2.1.3. Confirmation that only the methods for which ESMA has published guidelines are used for calculating the global exposure shall be required.
- 2.1.4. Where appropriate, in relation to Boxes 1 (point 5) and 23 (point 2) of ESMA Guidelines 10-788, the other risk measurement methods shall be described specifying the reasons for and the context of their use. Please be reminded that management companies shall, where appropriate, take into account, the risk profile and the investment strategy to complete VaR/stress-testing approach by other risk measurement methods (point 2 Box 23).

2.2. Commitment approach

- 2.2.1. Confirmation shall be given that the process for calculating global exposure in relation to financial derivative instruments on the basis of the commitment approach is implemented in accordance with the steps provided for in point 2 of Box 2, of ESMA Guidelines 10-788.
- 2.2.2. If a financial derivative instrument is not taken into account in the calculation of global exposure according to the conversion methodology set out in Box 2, the conversion methodology used for this investment shall be described and, where appropriate, the process of transition to the methodology set out in Box 2 shall be explained.
- 2.2.3. The possible alternative approaches used for non-standard financial derivative instruments which cannot be converted to market value or to the notional value of the equivalent underlying assets representing an insignificant proportion of UCITS shall be described.
- 2.2.4. The netting policies and, where appropriate, the duration-netting policies shall be described, and compliance of such policies with ESMA Guidelines 10-788 shall be demonstrated.
- 2.2.5. The hedging policy shall be described, and compliance of this policy with ESMA Guidelines 10-788 shall be demonstrated.
- 2.2.6. Compliance of the processing of efficient portfolio management techniques with the provisions set out in Box 9 of ESMA Guidelines 10-788 shall be confirmed.

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2.3. VaR approach

- 2.3.1. It shall be confirmed that all the UCITS positions are taken into account for VaR calculation.
- 2.3.2. The procedures for determining the maximum limits in VaR (according to the risk profiles for each UCITS and each sub-fund, respectively) and for determining the (absolute or relative) approach of the relevant VaR model shall be described. The documentation of these processes shall be specified.
- 2.3.3. The tasks carried out by the permanent risk management function in relation to point 1 of Box 22 of ESMA Guidelines 10-788 shall be described.
- 2.3.4. The validation process of the VaR model (point 3 of Box 22 of ESMA Guidelines 10-788) shall be described.
- 2.3.5. The VaR calculation model(s) shall be described, making reference at least to the information in items a) to d) of point 5 of Box 22, item 5 ("Documentation and Procedures") of ESMA Guidelines 10-788.
- 2.3.6. The calculation standards used in the model(s) shall be described in reference to those mentioned in Box 15 of ESMA Guidelines 10-788, and compliance with the provisions in Box 15 shall be confirmed.
- 2.3.7. As for the model(s) used, a description of how compliance with the provisions in Box 16 ("Rate Coverage") of ESMA Guidelines 10-788 is ensured shall be made.
- 2.3.8. As for the model(s) used, a description of how compliance with the provisions in Box 17 ("Completeness and accuracy of the risk assessment") of ESMA Guidelines 10-788 is ensured shall be made.
- 2.3.9. If the relative VaR model is used, the process for determining and maintaining the reference portfolio shall be described and compliance with points 1 and 2 of Box 12 of ESMA Guidelines 10-788 shall be confirmed.

2.4. Back testing

- 2.4.1. A description of how the back testing programme works shall be

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made and its compliance with Box 18 of ESMA Guidelines 10-788 shall be demonstrated. The policy shall be specified in case of excessive overshootings.

2.5. Stress testing

2.5.1. A description of how the stress testing programme works shall be made and its compliance with Boxes 19 to 21 of ESMA Guidelines 10-788 shall be demonstrated. The risks which are subject to stress testing as well as simulated scenarios shall be described and justified. The taking into account of the stress testing results in the risk management, reporting and investment decision processes shall be specified.

2.6. Disclosure

2.6.1. Compliance with the principles set forth in Box 24, and 25, respectively of ESMA Guidelines 10-788 of disclosure of the information in the prospectus and, respectively, the annual report shall be confirmed.

2.6.2. The method(s) for determining leverage shall be detailed.

3. **Determination and monitoring of liquidity risk**

3.1. The liquidity risk management policy shall be described.

3.2. It shall be demonstrated that the liquidity risk management policy ensures compliance with the repurchase obligation laid down in the Law of 2010 and explained how the liquidity profiles of the investments of the UCITS are in conformity with the redemption policy of these UCITS.

3.3. Where appropriate, a description of the stress tests carried out shall be made in order to assess the liquidity risk which UCITS are subject to in exceptional circumstances.

4. **Determination and monitoring of the counterparty risk arising from OTC derivatives**

4.1. The counterparty risk management policy in respect of OTC derivatives shall be described.

4.2. The process for selecting counterparties (criteria, etc.) shall be described.

4.3. The method for calculating the counterparty risk shall be confirmed.

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- 4.4. The policy in connection with mitigation techniques (netting, definition of eligible collateral, collateral management, discounts, monitoring of collateral, allocation of responsibilities with respect to management and monitoring of collateral, etc.) relating to the counterparty risk shall be described.
5. **Determination and monitoring of the counterparty risk arising from techniques and instruments (efficient portfolio management)**
 - 5.1. The counterparty risk management policy in respect of techniques and instruments shall be described, in particular with reference to the provisions of Circular 08/356 and ESMA Guidelines.
 - 5.2. The process for selecting counterparties (criteria, etc.) shall be described.
 - 5.3. The policy in relation to the collateral (definition of eligible collateral, collateral management, discounts, monitoring of collateral, allocation of responsibilities with respect to management and monitoring of collateral, etc.) used for mitigating counterparty risk linked to these transactions shall be described.
6. **Determination and monitoring of operational risk**
 - 6.1. The operational risk management policy shall be described.
 - 6.2. A description of the material operational risks to which UCITS are subject and how these risks are assessed and managed shall be made.
 - 6.3. A brief description of the business continuity policy shall be made.
7. **Determination and monitoring of concentration limits**
 - 7.1. The concentration risk management policy shall be described.
 - 7.2. The financial derivative instruments used by UCITS for which a commitment approach cannot be used within the concentration limits shall be indicated.
8. **Determination and monitoring of the valuation risk**
 - 8.1. The valuation risk management policy shall be described.
 - 8.2. The procedures pertaining to the holding and valuation of products (which are not financial derivative instruments) which are less liquid or have a

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more complex pay-off shall be specified, with an indication particularly of the specific duties and responsibilities of the permanent risk management function.

9. Determination and monitoring of legal risks

9.1. The legal risks linked to the use of OTC derivatives (framework agreement clauses, compensation clauses, collateral management agreements, etc.) to which UCITS are subject shall be described, and an explanation given of how they are assessed and managed.

10. Valuation of OTC derivatives

10.1. The policy and methods for valuing OTC derivatives in order to ensure an appropriate, transparent fair and independent valuation of UCITS' exposure to these derivatives shall be described.

10.2. The OTC derivatives present in UCITS shall be listed, and the valuing principles shall be described using the (illustrative) table below. If necessary, the table shall be commented on.

Financial Derivative Instruments	Volume*	Price in NAV				Valuing check***		
		Price provider	Valuing frequency	Valuing system	Independent source**	Source	Frequency	System
IRS	180	Head Office	Daily	Software package ABC	Yes	-	-	-
Variance Swaps	15	Counterparty	Daily	-	No	Management Company	Daily	Software JKL
CDS	80	Head Office	Daily	Software DEF	Yes	-	-	-
TRS	40	Counterparty	Daily	-	No	Head Office	Daily	Software DEF

* Number of agreements. The scope of the funds covered by the number of agreements shall be specified.

** Independence of the manager and the counterparty.

*** Probability checks (D/D-1 type) are not included; the check here concerns the use of multiple price sources.

11. Monitoring of cover rules

11.1. The cover rules for financial derivative instruments transactions shall be described. Where appropriate, the management of the cover rules by high-leverage UCITS in order to avoid default risks shall be specified.

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12. Management companies and individual management

12.1. With respect to management companies providing investment portfolio management services, pursuant to Article 101(3) of the Law of 2010, on a discretionary, client-by-client basis in accordance with mandates given by investors, the process shall briefly describe how such management companies comply with the risk management requirements under MiFID (Article 37-1 of the Law of 5 April 1993 on the financial sector, Grand Ducal Regulation of 13 July 2007, etc.).

13. List of UCITS

13.1. The list of UCITS (under Luxembourg Law and that of other Member States) subject to this risk management process shall be provided. The list shall clearly distinguish between Luxembourg UCITS and of other member States.

14. Concluding chapter

14.1. To conclude this document, the senior management shall give an opinion on the compliance of the risk management policy with the requirements of the 2010 Law, the CSSF Regulation, ESMA Guidelines and any other relevant rule.

14.2. Where appropriate, information on ongoing developments carried out to improve the risk management policy, process, techniques or tools shall be submitted.