

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

Luxembourg, 27th November, 2002

To: All Luxembourg undertakings for collective investment and all parties involved in the operation and supervision of such undertakings

CIRCULAR CSSF 02/77

Concerns: **Protection of investors in case of NAV calculation error and correction of the consequences resulting from non-compliance with the investment rules applicable to undertakings for collective investment.**

Ladies and Gentlemen,

The purpose of this circular is to set out the minimum rules of conduct to be followed by collective investment professionals in Luxembourg in case of errors in the administration or management of the undertakings for collective investment ("UCIs") for which they are responsible.

Errors which occur in practice are essentially those resulting from the incorrect calculation of the net asset value ("NAV") or from non-compliance with the investment rules applicable to UCIs. In most cases, non-compliance is caused either by investments which are not in compliance with the investment policy which the UCIs define in their prospectus or because of a breach of the investment or borrowing restrictions provided for by law or their prospectus.

It is the responsibility of the UCIs' promoters to ensure that any errors are correctly dealt with in strictest compliance with the rules of conduct specified in this circular. This is of a primordial importance not only because the interests of the UCIs and/or of the investors having suffered a loss need to be protected, but it must be ensured that investors maintain their trust in the integrity of collective management professionals which exercise their activities in Luxembourg and the effectiveness of the supervision exercised over UCIs.

The corrective and compensatory actions to be taken in case of NAV calculation errors or in case of non-compliance with the investment rules applicable to UCIs are separately dealt with under sections I. and II. hereafter. That presentation is necessary to take account of the fact that this circular takes a different approach to deal with losses in each of the two situations.

This circular replaces and supersedes CSSF circular 2000/8 of 15th March, 2000.

I. The treatment of NAV calculation errors

1. Definition of a calculation error

It is reminded that the NAV per unit/share of UCIs is obtained by dividing the value of their net assets, meaning assets less liabilities, by the number of units/shares outstanding.

Unless provided differently in their constitutional documents, the valuation of the assets of UCIs, whose investment policy provides for the investment in transferable securities, must be based, in case of securities admitted to official stock exchange listing, on the last known price on such stock exchange, unless such price is not representative. Securities which are not so listed or securities which are so listed but of which the last price is not representative, are valued on the basis of the reasonably foreseeable sale's price which must be determined prudently and in good faith.

It is presumed that the NAV is correctly calculated where the rules provided for its determination in the constitutional documents and prospectus of the UCI are strictly applied, consistently and in good faith, on the basis of the most current and most reliable information available at the time of the calculation.

An error in the NAV calculation occurs as a result of one or more factors or circumstances which cause the calculation to yield an incorrect result. Generally, these factors and circumstances are related to inadequate internal control procedures, management shortfalls, imperfections or deficiencies in the operation of the IT, accounting or communication systems as well as to non-compliance with the valuation rules provided in the constitutional documents and the prospectus of UCIs.

2. The materiality concept in the context of the NAV calculation errors

It is generally recognised that the NAV calculation process is not an exact science and that the result of the calculation constitutes the closest possible approximation of the true market value of the assets of a UCI. The level of precision with which the NAV is calculated will indeed depend on a series of external factors more or less linked to the complexity of each particular UCI such as volatility of the markets on which an important part of the assets of the UCI are invested in, the availability at the appropriate time of up-to-date information on market prices and/or other elements relevant for the calculation of the NAV as well as the reliability of the price information sources used.

In consideration of these factors, it is accepted in the majority of the principal collective management industry centres that only those calculation errors, which have a material impact on the NAV and whose proportion compared to the NAV reaches or exceeds a certain threshold, referred to as the materiality or tolerance threshold, must be notified to the CSSF and corrected in order to protect the interests of the investors concerned while it is indeed considered that in all other cases, the immateriality of the errors does not justify the recourse to relatively long and costly administration procedures which must be put into place in order to recalculate incorrect NAVs and indemnify affected investors.

Following the use and practices adopted abroad, this circular introduces the materiality concept for Luxembourg UCIs whilst determining acceptable tolerance thresholds at different levels depending on the type of UCI concerned by the NAV calculation error. This differentiating approach is justified to the extent that the implicit level of imprecision in each NAV calculation can vary from one type of UCI to the next by virtue of the external factors referred to above and in particular market volatility. That factor is indeed of a primordial importance in this context as it is generally admitted that the volatility of a market depends to a large extent on the risks associated with the financial assets dealt on that market and that such volatility increases depending on whether those assets are money market instruments, bonds/debt securities or shares and other types of securities.

In conformity with that approach, different tolerance thresholds are provided for UCIs which invest in money market instruments and/or cash assets ("money market UCIs/cash funds"), UCIs which invest in debt obligations and/or similar debt instruments ("bond UCIs"), UCIs which invest in shares and/or financial assets other than those referred to above ("equity or other financial assets' UCIs") and UCIs which follow a mixed investment policy ("mixed UCIs").

For each of these types of UCIs the tolerance threshold is specified hereunder:

money market UCIs/cash funds:	0.25% of NAV
bond UCIs:	0.50% of NAV
shares and other financial assets' UCIs:	1.00% of NAV
mixed UCIs:	0.50% of NAV.

The introduction of the materiality concept does not mean that UCI promoters will in case of calculation errors be obliged to apply the tolerance thresholds specified above. Promoters are on the contrary free to apply less high tolerance thresholds or even not apply any at all.

It is the responsibility of the governing bodies of Luxembourg UCIs whose units/shares are admitted to distribution abroad to ensure that the tolerance thresholds they propose to adopt in case of NAV calculation errors are not in conflict with the requirements that may be applicable in those circumstances in the host countries.

3. Procedures to be followed for the correction of calculation errors which have a material impact on the NAV.

The indications given under the points below relate to the principal stages of the correction process and fix in detail the rules of conduct to be followed in the correction of the calculation errors whose impact on the NAV reaches or exceeds the acceptable tolerance threshold as specified above and which are thereby considered to constitute material errors. These rules of conduct concern in particular

- the information to be furnished to the promoter and the custodian of the UCI and to the CSSF;
- the determination of the financial impact of the calculation errors;
- the indemnification of the damages which result from the calculation errors for the UCI and/or its investors;
- the implication of the external auditor in the monitoring of the correction process and
- the communications to be made to those investors which have to be indemnified.

Significant errors not only means isolated calculation errors which have a significant impact on the NAV but also unprocessed simultaneous or successive calculation errors which each remain below the acceptable tolerance threshold but which, if considered on an aggregate basis, reach or exceed that threshold.

The correction procedures must form an integral part of the internal control procedures which the head office of UCIs must put into place to limit as much as possible the risk for calculation errors and detect any errors that occur.

(a) The information to be furnished to the promoter and the custodian of the UCI and to the CSSF

As soon as a significant calculation error is discovered, the head office of the UCI must immediately advise the promoter and the custodian of the UCI as well as the CSSF of the occurrence of the error and submit to the promoter and the CSSF a corrective action plan dealing with the steps which are proposed or have been taken to cure the problems which have caused the ascertained calculation error and to put into place the improvements to the administrative and control structures which are necessary to avoid the subsequent occurrence of the same problems.

The corrective action plan must also specify the steps which are proposed or which have been taken to

- identify in the most appropriate way the different categories of investors who are affected by the errors,
- recalculate the NAVs which have been applied to subscription and redemption requests received during the period starting on the date on which the error became significant and the date on which it was corrected ("the error period");

- determine, on the basis of the recalculated NAVs, the amounts which have to be repaid to the UCI and the amounts payable by way of indemnity to investors who have suffered a loss as result of the error;
- notify the error to the supervisory authorities of the countries in which the units/shares of the UCI are authorised for distribution, to the extent the latter so require;
- notify the error to the investors who have to be indemnified and inform them on the steps that will be put into place for indemnifying their losses.

If, following an NAV calculation error, the indemnification amount does not exceed EUR 25,000 and the amount to be reimbursed to an investor does not exceed EUR 2,500, no corrective action plan as detailed hereabove needs to be submitted to the CSSF. In that case the head office must notify the occurrence of the material calculation error to the CSSF and must quickly take the measures necessary for correcting the calculation error and for arranging the indemnification of the damages incurred as provided in items b), c), and e) hereafter.

(b) The determination of the financial impact of significant calculation errors

In case of a material calculation error, the head office of the UCI must as quickly as possible take the steps necessary to correct the error. In particular, it must recalculate the NAVs which have been determined during the error period and quantify the loss for the UCI and/or its investors on the basis of the corrected NAVs, provided however that the recalculation of incorrect NAVs is required only in case subscription or redemption requests have been processed during the error period.

In determining the financial impact of calculation errors, the head office of the UCI must fundamentally distinguish between

- investors which have joined the UCI before the error period and which have redeemed their units/shares during such period and
- investors which have joined the UCI during the error period and which continued to hold their units/shares after such a period,

provided that investors other than those belonging to the above categories may be affected depending on actual circumstances.

The indications below give an overview of the situation of the UCI and the concerned investors in the following cases:

Cases where the NAV is undervalued.

In that case,

- investors which have joined the UCI before the error period and which have redeemed their units/shares during such period, must be indemnified of the difference between the recalculated NAV and the undervalued NAV which was applied to the redeemed units/shares ;

- the UCI must be indemnified of the difference between the recalculated NAV and the undervalued NAV which has been applied to units/shares subscribed to during the error period and which remained outstanding beyond that period.

In case the NAV is overvalued.

In that case,

- the UCI must be indemnified of the difference between the overvalued NAV which was applied to units/shares redeemed during the error period but which were subscribed to before that period and the recalculated NAV;
- investors which have joined the UCI during the error period and which have held their units/shares beyond such period must be indemnified of the difference between the overvalued NAV applied to the units/shares subscribed to and the recalculated NAV.

The investors having suffered a loss as a result of a calculation error may be indemnified out of the assets of the UCI in case the payments due to the relevant investors correspond to excess sums within the assets of the UCI and the payment of which can therefore not affect the interests of the other investors. It remains nevertheless that the head office of the UCI or, as the case may be, its promoter may decide to themselves support the payments necessary to indemnify affected investors.

There is an open issue as to whether the UCI affected by a calculation error has the right to require investors who have involuntarily benefited from that error to subsequently pay to the UCI the amount not paid by them in respect of units/shares subscribed by them on the basis of an undervalued NAV or to repay the excess of the sums received by them in respect of units/shares redeemed at an overvalued NAV. Since this is a controversial issue to which no clear response can be given in the absence of a court precedent, it is not recommended to call upon the investors concerned to indemnify the UCI for its losses, unless the beneficiaries are institutional investors or other sophisticated investors who accept in full knowledge of the circumstances to cover the loss of the UCI.

In those circumstances, it is in principle the obligation of the head office of the UCI or as the case may be of its promoter, to make the payments due to the UCI in lieu of the investors who have benefited from the error. This solution is particularly justified because any claim on the investors having benefited from the error could have a negative effect on the promoter's reputation and result therefore in a non negligible commercial prejudice for the promoter.

As soon as the operations consisting in the recalculation of the incorrect NAVs and the computation of the losses resulting from the calculation error for the UCI and/or its investors have been concluded, the head office of the UCI must make the entries in the accounts of the UCI which are necessary to reflect the payments to be received and the payments to be made by the UCI.

(c) The correction of the consequences for the UCI and/or its investors of calculation errors

The compensation for damages is only compulsory by reference to the specific dates on which NAV calculation errors were significant. Insofar as other dates are concerned, it is the responsibility of the governing bodies of the UCI to determine whether it is necessary to determine the financial impact of the error and establish an indemnification plan.

The head office of the UCI must diligently put into place the measures provided for in the correction plan referred to in item a) above for the recalculation of the incorrect NAVs and the determination of the loss suffered by the UCI and/or the affected investors.

It must also act with diligence in the organisation of the indemnity payments due to the UCI and/or the affected investors, provided however that these payments can only be made after the external auditor has completed his special report referred to in item d) below.

In order to accelerate the process of calculation error correction, the head office of the UCI can initiate the different stages of that process without having obtained the prior consent of the CSSF. It suffices in that case that the CSSF is informed of the steps taken subsequently thereto.

If, following a NAV calculation error, the total indemnification amount does not exceed EUR 25,000 and the amount to be reimbursed to an investor does not exceed EUR 2,500, the head office must be diligent in operating the payment of the amounts due as indemnification to the UCI and/or to affected investors as soon as the sums payable as indemnification will have been determined.

It remains however that the CSSF can intervene in the correction process on a subsequent basis if it deems such intervention necessary in order to preserve the interests of the UCI and/or the affected investors.

In most of the main centres for collective management, UCIs are authorised by the CSSF to apply the *de minimis* rule to the amounts to which individual investors can pretend.

In accordance with that rule, the UCIs which benefit from such an authorisation may decide not to pay to individual investors sums which do not exceed a specific amount, the level of which is generally fixed as a lump sum figure, referred to as the *de minimis* amount. That lump sum figure is applied in order to avoid that investors who have a right to be paid lesser amounts, end up with no real benefit because of the bank charges (cheque collection charges for cheques issued to their order or bank transfer charges) and other costs they have to bear.

For the reasons specified in the preceding paragraph, Luxembourg UCIs can also take advantage of the *de minimis* rule. This document does however not introduce a single lump sum for the *de minimis* amount Luxembourg UCIs can apply.

It is therefore the responsibility of each UCI to determine itself, with the approval of the CSSF, the lump sum of *de minimis* amount it intends to apply provided that, in determining such lump sum, it must take into account the level of bank charges and other costs which are charged to investors to whom payments are made. This approach is justified because a large majority of Luxembourg UCIs are distributed abroad and that the level of those charges can appreciably vary between UCIs depending on the geographic location of investors.

Concerning the indemnification of investors who already hold units/shares at the moment of payment of the amounts due to them, UCIs may decide the attribution to them of new units/shares (or, as the case may be, fractions of units or shares) instead of making a payment by cheque or bank transfer. For those investors, recourse to this particular method of indemnification is even recommended since such investors then avoid the bank charges which would otherwise be charged to them and since it additionally allows a complete indemnification without any consideration being given to the actual amounts they are entitled to, as in those circumstances there is no justification to apply a *de minimis* amount.

It is clear that UCIs which issue new units/shares to indemnify affected investors may not deduct commissions or other entry costs in respect to those units/shares.

Where affected investors have subscribed units/shares through a "nominee", the head office of the UCI must remit to such "nominee" the amounts which are intended for the relevant investors. In such cases, the "nominee" must commit to the head office that it will forward the amounts received by it to the persons effectively entitled thereto.

The term "nominee" as used herein means an intermediary who intervenes between the investors and the UCI they have selected and who offers nominee services which the investors may use in the conditions set out in the prospectus of the UCI.

The *de minimis* rule can in no case be used to refuse payment to investors of amounts which are less than the *de minimis* amount applicable to such investors in case such investors expressly claim such payment.

(d) The implication of the external auditor in the monitoring of the correction process

At the same time as the head office notifies the promoter and the custodian of the UCI and the CSSF of the occurrence of a significant calculation error, the head office of the UCI must also notify the UCI's external auditor and instruct him to report on the adequacy of the method it intends to use in order to

- identify the different categories of investors affected by the error;
- recalculate the NAVs applied to subscription and redemption requests received during the error period; and

- determine, on the basis of the recalculated NAVs, the amounts which must be repaid to the UCI and the amounts payable on an indemnity basis to investors who have suffered a significant loss because of the error.

The conclusions of the external auditor on the proposed methods must be documented in writing and must be attached to the correction plan referred to in item a) above.

When the calculation error is discovered by the external auditor, the external auditor must immediately notify the head office of the UCI thereof and request it to immediately inform the promoter, the custodian and the CSSF thereof. If the external auditor realises that the head office does not comply with that request, the external auditor must notify this fact to the CSSF.

As soon as the head office of the UCI has carried out the entries in the accounts of the UCI which are necessary to correct the calculation error, the external auditor must draw up a special report in which he opines whether the correction process is appropriate and reasonable or not. This opinion must address the following:

- the methods referred to above,
- the incorrect NAVs which have been recalculated,
- the losses suffered by the UCI and/or its investors.

The head office must forward a copy of the special audit report to the CSSF as well as to the supervisory authorities of those countries in which the units/shares of the UCI are admitted for distribution, in case such authorities so request.

Finally, the external auditor must establish a confirmation in which he certifies that the amounts due on an indemnity basis to the UCI and/or affected investors have effectively been paid.

A copy of that confirmation must also be forwarded to the CSSF and, as the case may be, the foreign regulatory authorities referred to above.

In the context of an NAV calculation error for which the indemnification amount does not exceed EUR 25,000 and the amount to be reimbursed to an investor does not exceed EUR 2,500, the external auditor must review the correction process in the course of its annual audit of the UCI. The external auditor must in the report on its review state whether, in its opinion, the process of correction is or is not appropriate and reasonable. This statement must cover the following items:

- the methods referred to above;
- the incorrect NAVs which have been recalculated;
- the losses suffered by the UCI and/or its investors; and
- the payment of the amounts due as indemnification.

(e) The communications to be made to those investors which have to be indemnified

Significant calculation errors must be brought to the attention of the investors who are to be indemnified.

If applicable, the communications which are made for that purpose through individual notices and/or by publication in the press must inter alia include particulars on the calculation error and the steps taken to correct it and to indemnify the UCI and/or the affected investors accordingly.

These communications must be submitted in draft form to the CSSF and, as the case may be, the supervisory authorities of those countries in which the units/shares of the UCI are admitted for distribution, in case such authorities so request.

4. Responsibility for the costs resulting from the correction operations of a calculation error

The costs caused by the correction operations of a calculation error, including the costs associated with the intervention of the external auditor, cannot be charged to the assets of the UCI. These costs must be fully supported by the head office of the UCI, failing which, by the promoter of the UCI, in each case irrespective of the impact of the error on the NAV.

The external auditor will be responsible to ascertain within the framework of the audit of the accounting information contained in the annual reports of the UCI that the costs referred to herein will not be charged to the UCI.

II. The compensation of the consequences resulting from non-compliance with the investment rules applicable to UCIs

Promptly upon discovering a non-compliance with investment rules, the directors¹ of the UCI concerned must take the steps which are necessary to regularise the situation of the UCI caused by such non-compliance.

In case the ascertained non-compliance results from investments which do not comply with the investment policy defined in the prospectus, the UCI must realise those investments.

In case the investment restrictions provided for by law or by the prospectus are breached in circumstances other than those referred to in Article 46 of the Law of 30th March, 1988 concerning undertakings for collective investment, the UCI must realise the excess positions.

Where the borrowing limits provided for by law or by the prospectus are breached, the UCI must reduce its borrowings to the authorised limit.

¹ In French "dirigeant" which includes directors, managers and officers.

In the three circumstances referred to above, the UCI must be indemnified to the extent of any damage suffered.

In the first two circumstances, the damage must be determined in principle by reference to the loss of the UCI resulting from the realisation of the non-authorized investments. In the third circumstance, the UCI must in principle be indemnified to the extent of its interest and other charges resulting from the non-authorized portion of the borrowings.

In the presence of a number of simultaneous breaches of investment rules, the indemnity, if any, is to be calculated in respect of the net result of the corrective actions concerning all the breaches.

In case the corrective actions have a net positive result for the UCI, it will retain the benefit thereof. In those circumstances, it suffices for the head office of the UCI to notify the CSSF and the external auditor.

By exception to the preceding principle and to the extent there is adequate justification therefore, methods other than those described above may be used to determine the suffered damage including in particular the method which consists in determining the damage by reference to the performance which would have been realised if the non-authorized investment had been subject to the same fluctuations as the portfolio invested in compliance with the investment policy and the investment restrictions provided for by law or the prospectus.

The tolerance levels which are provided for NAV calculation errors cannot be applied to damages of UCIs resulting from non-compliance with investment rules.

Because they did not comply with their obligations it is the responsibility of the persons who have caused the losses to ensure that such losses are repaid. In case this principle cannot be applied, the promoters will have to indemnify.

The principles which determine the procedures to be followed for the processing of NAV calculation errors and the treatment of NAV calculation errors for which the total indemnification amount does not exceed EUR 25,000 and the indemnification amount to be paid to one investor does not exceed EUR 2,500 will apply mutatis mutandis in all cases where a UCI suffers a loss as a result of non-compliance with investment rules. The principles referred to herein which have to be applied are in particular those concerning

- the information to be furnished to the promoter and the custodian of the UCI and to the CSSF;
- the identification of the categories of investors which are affected because of the loss suffered by the UCI;
- the determination of the financial impact of the loss for individual investors and the measures to be taken for their indemnification;
- the implication of the independent auditor in the monitoring of the correction process;
- the communications to be made to those investors which have to be indemnified.

As regards the procedures for indemnifying investors, the rules set out in Section I. 3. (c) of this circular will apply.

III. Final Provisions

1. Repealment provision

CSSF circular 2000/8 is repealed.

2. Entry into force

The provisions of this circular are immediately applicable in their entirety.

Yours faithfully,

COMMISSION DE SURVEILLANCE DU SECTEUR FINANCIER

Charles KIEFFER
Director

Arthur PHILIPPE
Director

Jean-Nicolas SCHAUS
Director General