THE INVESTMENT FUNDS INSTITUTE OF CANADA
L'INSTITUT DES FONDS D'INVESTISSEMENT DU CANADA

Report on Market Timing and Short-Term Trading

August 25, 2004

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The Investment Funds Institute of Canada
Trading Practices Working Group
Report on Market Timing and Short-Term Trading

The Trading Practices Working Group (the "Working Group") of The Investment Funds Institute of Canada ("IFIC") was formed to study Canadian and other mutual fund markets and make recommendations with respect to detection and deterrence strategies for manager members with respect to inappropriate short-term trading and market timing activity in Canada. *The concepts of short-term trading and market timing discussed in this report are defined on page 3.*

To ensure fair treatment of all investors in the Canadian mutual fund industry and to provide guidance for IFIC members in detecting and discouraging market timing and inappropriate short-term trading activity, the Working Group recommends a set of measures. Each manager member will implement those measures that it considers most appropriate to the needs of unitholders and its business operations, in accordance with IFIC's recommendation below. Managers will be free to adopt and implement additional measures consistent with those principles as they consider appropriate or necessary based on their unique business considerations.

IFIC strongly supports measures to protect investors which will effectively deter market timing and inappropriate short-term trading practices within a viable mutual fund industry.

Overall Recommendation

Managers must adopt policies and institute procedures to monitor, detect and deter market timing and inappropriate short-term trading in their funds.

Measures

Procedures to monitor, detect and deter market timing trading and inappropriate short-term trading should include effective, consistent monitoring of trades. As part of the monitoring process, many fund managers place clients who have engaged in market timing or inappropriate short-term trading on a watch list to ensure that such activity does not re-occur.

Fund managers should then adopt a combination of the following procedures after a determination is made as to which will be most effective for their funds:

- imposition of a mandatory fee, either automatically in identified funds with stated exceptions, or, once market timing or inappropriate short-term trading is identified, to be collected and paid to the funds in question;
- utilization of fair value pricing;
- placing restrictions on client accounts, allowing only redemptions where attempts to repeat market timing or inappropriate short-term trading occur; and
- utilization of such additional measures as the manager deems appropriate.

Each of these measures will be discussed in more detail later in this report.

PART I. INTRODUCTION

(a) Background to Short-Term Trading and Market Timing Issues in Canada

Largely in response to what are being referred to as the "mutual fund scandals" which came to light in the United States in late 2003, regulators in Canada have been examining whether similar activities giving rise to those scandals may be occurring in this country. On November 5, 2003 the Ontario Securities Commission ("OSC") delivered a questionnaire to Canada's fund managers seeking information about incidents of market timing and late trading. On December 19, 2003 the Mutual Fund Dealers Association of Canada ("MFDA") issued a similar questionnaire to its members, followed on January 9, 2004 by the Investment Dealers Association of Canada ("IDA") with an almost-identical questionnaire to its members. On February 11, 2004, the OSC requested detailed trading data from 31 mutual fund managers chosen based on the responses provided to the questionnaire and on a sampling. The OSC has since May 10, 2004 been in the third phase - on-site visits to certain managers.

The issue of late trading which occurred in the United States does not appear to be an issue in Canada because of differences in structure of the industry and order placement systems.

Short-term trading and market timing are not issues unique to mutual funds. The Working Group understands that the Financial Services Commission of Ontario ("FSCO"), which regulates Ontario's insurance companies and the distribution of insurance products in Ontario, released a similar questionnaire on May 20, 2004 to the insurance companies whose products it regulates, in connection with the trading practices in their asset portfolios, including their segregated funds.

The Financial Services Authority ("FSA") in the United Kingdom conducted a fund survey similar to that conducted in Canada. The FSA recently announced that although there was some evidence of limited market timing in U.K. funds, there is "no sign either that market timing is widespread or that it has been a major source of detriment to long-term investors"[1]. The Luxembourg Commission de Surveillance du Secteur Financier ("CSSF") also conducted a survey, the results of which indicated that there does not appear to be a significant problem in that country.[2] Appendix A provides a summary of the survey results of the FSA and the CSSF. In addition, it includes a summary of the recent activities that occurred in the U.S. with respect to market timing practices, including the legislative measures which have been proposed and adopted by the Securities and Exchange Commission.

The regulatory review process in Canada has not yet concluded. However, IFIC and its members strongly support the adoption of measures to protect investors which will effectively deter market timing and short-term trading practices.

[1] Financial Services Authority, Press Release, www.fsa.gov.uk/pubs/press/2004/024.html (March 18, 2004)
[2] Commission de Surveillance du Secteur Financier, Press Release, http://www.cssf.lu/docs/press_release_late_trading.pdf (February 17, 2004)

(b) Information about the Working Group

At its December 11, 2003 meeting, IFIC's Manager Issues Committee agreed to form the Working Group to study the issues around various trading practices, including market timing and short-term trading, and to articulate the industry's position and recommendations in relation to enhanced detection and deterrence measures.

(i) The Working Group's Mandate

To review industry practices in connection with the sale of mutual funds, with an initial focus on late trading and short-term trading, and make recommendations for changes to such practices, if warranted, to enhance protection of the interests of Canadian investors.

To act as liaison between the industry and appropriate securities regulators to promote discussion and the flow of information about industry trading practices.

(ii) The Working Group's Process

This report discusses only the short-term trading portion of the Working Group's mandate.

The Working Group has reviewed current Canadian regulatory requirements, prospectus disclosure and operational practices. It has also reviewed the issues and concerns presented by the U.S., the U.K and the Luxembourg investigations, as well as the proposed and adopted detection and deterrence measures, and is monitoring current developments in these jurisdictions.

For the purposes of this report, the Working Group developed definitions for the trading practices at issue. The Working Group considered a number of measures that could be adopted by the industry. It also considered the difficulty and costs of implementation of these measures and agreed that industry members should come to their own conclusions as to which measures or combination of measures are most appropriate for them and which meet the principles set out in this document.

The Working Group presented its report to IFIC's Board of Directors. Senior IFIC staff and industry members will be liaising with the OSC to ensure the recommendations are consistent with, and appropriate to address, any findings resulting from the OSC, MFDA and IDA surveys.

(iii) The Working Group's Definitions

For purposes of this report, the following definitions were used:

"Short-Term Trading" means trading that involves a combination of a purchase and a redemption or switch (a redemption and purchase of another fund in the same fund family) of mutual fund securities occurring within a short period of time, generally up to 90 days. Short-term trading may involve market timing.

"Market Timing" means trading in mutual fund securities with the intent to exploit short-term discrepancies between the stale price of a mutual fund's securities used in determining the fund's

net asset value and the fair value of those securities. This practice is also known as **"stale price arbitrage"**.

"Fair Value Pricing" means a procedure to determine the appropriate or fair price for a mutual fund portfolio's securities in circumstances where market prices for such securities are unavailable, unreliable or not considered reflective of the securities' current market value.

PART II. DISCUSSION

Short-term trading and market timing by themselves are not illegal. This fact has been expressly affirmed by the regulators in Canada, the U.S. and U.K.

An important feature of mutual funds is that they are liquid investments, able to be redeemed fairly easily and quickly at the request of the investor. On the other hand, many mutual funds are intended to be long-term investments and, as such, the investors in those funds may be harmed by short-term trading activity, whether or not such activity is motivated by market timing. While it is generally accepted that a reasonable amount of purchase and redemption activity should not have a significant effect on a fund, short-term trading activity, if too frequent, may disrupt efficient portfolio management as it may necessitate ill-timed portfolio transactions, or require the portfolio manager to maintain higher cash floats than would otherwise be appropriate in order to meet increased redemption requests. Such activity may also increase the fund's transaction costs. Typically, managers have the discretion to apply short-term trading fees if the short-term trading activity is considered to be inappropriate.

Market timing, which involves short-term trading intended to capitalize on pricing inefficiencies in a mutual fund, makes profits out of gains that would otherwise accrue to a fund's long-term investors. Market timing should be discouraged and is inappropriate in a mutual fund. Short-term trading may also be inappropriate in a mutual fund, depending on the circumstances.

Although all market timing involves short-term trading, not all short-term trading constitutes market timing. Short-term trading can occur for a number of reasons other than market timing, not all of which reasons are inappropriate. For example, short-term trading may be appropriate and/or short-term trading deterrence measures may not be applied, where:

(i) the funds are described in their offering documentation as being designed to accommodate some short-term trading;
(ii) the funds are included within fund-on-fund or cloned fund product structures or within structured notes;
(iii) the transactions occur in systematic pre-authorized purchase and withdrawal plans, or they are internal account rebalancing transactions;
(iv) the investor produces evidence of undue hardship or unusual circumstances that justify short-term trading; or
(v) the amount of the transaction is *de minimis*.

The Working Group believes that it is important that fund managers distinguish market timing, which is always unacceptable, from other types of short-term trading that may be appropriate in some circumstances. Consequently, the Working Group recommends that fund managers maintain documentation of short-term trading deemed to be acceptable and that such documentation be maintained.

Measures Considered

The Working Group considered and studied a number of measures to enhance detection and deterrence of market timing and short-term trading activity. The effectiveness of each measure was assessed on its own and in combination with other options. As well, the difficulty and cost of implementation of each measure was considered in light of the potential benefits. Below are the measures which the Working Group considers to be the most effective. They include:

- effective monitoring of trades, including placing clients on watch lists;
- imposition of a mandatory fee, either automatically imposed, or imposed once market timing or inappropriate short-term trading is identified;
- fair value pricing; and
- preventing future purchases in client accounts.

All fund managers should put in place effective procedures to monitor trades. In addition, fund managers must determine which combination of the other measures listed above they believe will most effectively deter market timing and short-term trading in their funds. This determination must take into account their own operations, structure, internal controls, compliance systems and costs. In most circumstances it is believed that the adoption of a combination of the measures considered should virtually eliminate trading issues while providing a cost effective solution for the unitholder.

(1) <u>Effective Trade Monitoring</u>

In order to detect market timing and inappropriate short-term trading activity in their funds, managers require effective trade monitoring systems that enable identification of the investors transacting such trades and review of trades over various time periods, trading patterns and other indicia of such activity.

Most fund managers already have processes and systems in place to perform trade monitoring. Managers use various review systems to generate and assess trading data from their funds, and to take appropriate action.

Managers may consider placing clients who engage in market timing or inappropriate short-term trading on a watch list to ensure that further market timing or inappropriate short-term trading activity does not occur. Watch lists may include names of clients or dealers and financial advisors who have previously engaged in these activities one or more times.

Unlike in the United States, Canadian fund managers can monitor and detect trading activity at an account level and generally know the client name, financial advisor and dealer name. The Working Group believes that trade monitoring and the use of watch lists may be an effective way to eliminate repeat market timing and inappropriate short term trading.

(2) Short-Term Trading Fees

Managers may impose a mandatory fee, either automatically in identified funds with stated exceptions, or once market timing or inappropriate short-term trading is identified, to be collected and paid to the funds in question.

Most Canadian mutual fund prospectuses currently include disclosure permitting the funds to impose, at the manager's discretion, a short-term trading fee on redemptions of fund securities that take place within a specified time period after purchase of the securities. Generally these fees are 1% or 2% of the net asset value of the securities redeemed and the fees are generally imposed, in the manager's discretion, on redemptions of securities that occur within periods ranging from 30 to 90 days of purchase. Several large fund managers already impose automatic, mandatory short-term trading fees on certain of their funds.

The Working Group discussed the advantages and disadvantages of such fees and the nature of various types of fees that could be charged. The Working Group also discussed whether the fees should be applied only to funds that are vulnerable to market timing activities.

A majority of Working Group members believe that mandatory fees should be implemented on at least those funds vulnerable to market timing – for instance, a fee of up to 2% on redemptions or switches of securities occurring within a certain number of business days (as few as 5, as many as 30) of purchase, to deter market timing. Many Working Group members believe that mandatory fees should be implemented on all funds (other than money market funds), on redemptions or switches of securities occurring within a certain number of days (as few as 5, as many as 90) of purchase, to reduce the incentive to engage in, and compensate the funds for any additional costs generated by, short-term trading.

Managers should consider allowing a *de minimis* level of redemptions below which mandatory fees should not apply and allowing an exemption from the application of the mandatory fees where the investor is able to produce evidence of undue hardship or unusual circumstances that justify the investor's short-term trading. As well, managers must assess the appropriate implementation of short-term trading fees to transactions such as rescissions and withdrawals, systematic pre-authorized purchase and withdrawal plans, internal automatic account rebalancing transactions, or to transactions relating to investments by, among others, fund-on-fund, segregated fund, clone fund and structured note products.

Managers should also have the ability to levy discretionary fees for periods or for events beyond mandatory fees, on all funds if they so desire, to provide an additional tool to allow the funds to combat market timing and inappropriate short-term trading.

The Working Group members who already have experience in levying short-term trading fees agree that they are an effective tool to reduce market timing and short-term trading activity.

However, there remain concerns among some fund managers that the costs to fund investors of implementation and ongoing administration of a short-term trading fee program may be significant, particularly for fund managers who choose other measures which may be effective to address these issues and which may be less costly.

(3) <u>Fair Value Pricing</u>

Manager members may consider using fair value pricing for their funds. Certain fund managers currently apply fair value pricing to eliminate stale prices within mutual fund portfolios, thereby reducing the pricing discrepancies which market timers seek to exploit. The Working Group recognizes that fair value pricing may be an effective tool to deter market timing trading.

In accordance with the general nature of the information required to be disclosed in mutual fund prospectuses, fund managers currently provide general disclosure of their asset valuation procedures, including fair value pricing where applicable. In accordance with the provisions of NI 81-101F2, such disclosure is generally set out in a fund's annual information form, rather than in its prospectus. It may be necessary for fund managers to amend their funds' constating and disclosure documents, if they wish to be able to introduce fair value pricing.

Fair value pricing is a necessarily subjective process. Different funds that use fair value pricing could apply the same principles and procedures reasonably and appropriately and still arrive at different values.[3] In March 2002, for guidance to its members, IFIC issued a Bulletin entitled "Fair Valuing Portfolio Securities" ("IFIC Fair Valuing Bulletin")[4], which focuses upon unusual events involving securities trading, such as illiquid securities, trading halts in securities, closure of markets as well as foreign securities. The IFIC Fair Valuing Bulletin itemizes general principles to be observed by a fund when it fair values a security, and provides illustrations of implementation of fair value pricing in certain situations.

It is generally agreed that fair value pricing can reduce pricing discrepancies and thereby reduce the opportunity for stale price arbitrage. The effectiveness of fair value pricing as a deterrent to market timing activity has also been highlighted in the United States and the United Kingdom, and is among the best practice recommendations of the Association of the Luxembourg Fund Industry with respect to funds domiciled in Luxembourg, as set out in the discussion in Appendix A.

However, there remain concerns among some fund managers that the costs to fund investors of implementation and ongoing administration of a fair value pricing program may be significant, particularly for fund managers who choose other measures which are effective to address these issues and which may be less costly.

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[3] *Report of the Fair Valuing Working Group of the Investment Funds Institute of Canada*, December 2001, page 6, http://www.ific.ca/pdf/IFICFairValuingReport_December2001.pdf.

[4] The Investment Funds Institute of Canada, Bulletin Number 23, *Fair Valuing Portfolio Securities*, March 2002, http://www.ific.ca/pdf/IFICBull23_FairValuing_English_March2002revised.pdf.

(4) Restricting Client Accounts

Where attempts to repeat market timing or inappropriate short-term trading occur, fund managers should restrict client accounts, permitting no further purchases so that the client is only permitted to redeem current holdings. Further, monitoring should continue to ensure that new accounts are not opened by the same clients.

PART III. RECOMMENDATIONS

In Canada, as in the United States, the United Kingdom and Luxembourg, there is no one solution to deter market timing and inappropriate short-term trading activity.

The overall recommendation noted at the beginning of this report permits each manager member to adopt such measures it considers most suitable for its business operations.

All fund managers should put in place effective procedures to monitor trades. The Working Group agrees that, in addition, the appropriate adoption of a combination of some, or all, of the other measures outlined above will be effective, and will produce a more uniform response, in deterring and preventing market timing and inappropriate short-term trading activity in Canadian mutual funds.

IFIC should continue to work to create guidelines for fund managers for determining products or product structures for which the deterrence measures recommended in this report should not be applied.

Appendix A

The following is a brief summary of the current status of investigations and regulatory actions taken in the United States, the United Kingdom and Luxembourg on the issues of short-term trading and market timing.

United States

United States regulators have alleged that certain U.S. mutual fund managers permitted certain investors to engage in inappropriate short-term trading and market timing activity in their mutual funds to the detriment of the other investors in those funds. In those cases that have led to the filing of administrative or civil complaints, fund managers are alleged to have inconsistently applied the funds' explicit short-term trading rules and procedures that are intended to be uniformly applicable to all investors in the funds; or permitted market timing arrangements to be established which directly contravened unequivocal prohibitions or restrictions on market timing activity disclosed in the funds' prospectuses.

To deal with these issues the U.S. Securities & Exchange Commission ("SEC") has proposed and enacted a number of new rules which will be detailed below. Further, in addition to supporting the SEC's proposals, the Investment Company Institute ("ICI") has submitted a number of recommendations, notably a mandatory short-term trading fee to be imposed on any investor who sells units purchased within the previous 5 business days, which the SEC has adopted and circulated as a proposal.

The SEC has already enacted new rules requiring mutual funds to adopt and implement procedures "reasonably designed to ensure compliance with their disclosed compliance programs" regarding, among other items, market timing.[5] These rules became effective on February 5, 2004, and have a compliance date of October 5, 2004.

In addition, the SEC has enacted rules to enhance prospectus disclosure of funds' policies, procedures and restrictions for deterring market timers (the "Disclosure Rule"). In its request for comments on the Disclosure Rule, the SEC stated that although many funds state in their prospectuses that they discourage market timing, "many do not identify with specificity the frequency or type of trading that they consider to be problematic, or the specific steps that they will take to ensure that market timing trades are detected and prevented".[6] The SEC suggested "it may be useful to require mutual funds to describe with specificity the restrictions they place on frequent purchases and redemptions and the circumstances and arrangements under which the restrictions are not imposed. These additional disclosure requirements would enable investors to better assess a mutual fund's risks, policies, and procedures in this area, and to determine if a fund's policies and procedures are in line with their expectations".[7]

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[5] U.S. Securities and Exchange Commission. *Compliance Programs of Investment Companies and Investment Advisers*, Investment Company Act Release No. 26299 (December 17, 2003), 64 Fed. Reg. 74714 (December 24, 2003).

[6] U.S. Securities and Exchange Commission. Proposed Rule, *Disclosure Regarding Market Timing and Selective Disclosure of Portfolio Holdings*, Investment Company Act Release No. 26287 (December 11, 2003), 68 Fed. Reg. 70404 (December 17, 2003).

[7] *Ibid.*

The Disclosure Rule requires:

- a mutual fund to describe in its prospectus the risks, if any, that frequent purchases and redemptions of fund shares may present for other shareholders of the fund;
- a mutual fund to state in its prospectus whether or not the fund's board has adopted policies and procedures with respect to frequent purchases and redemptions of fund shares, and if not, it must state the specific basis for the board's view that it is not appropriate to have such policies and procedures;
- a mutual fund to describe with specificity in its prospectus any policies and procedures for deterring frequent purchases and redemptions of fund shares;
- a mutual fund to describe in its Statement of Annual Information any arrangements that exist to permit frequent purchases and redemptions of fund shares;
- all of these disclosures from insurance companies with respect to their variable annuity products; and
- mutual funds (other than money market funds) and insurance companies (with respect to variable annuities) to explain in their offering documents the circumstances under which they will use fair value pricing and the effects of using fair value pricing

These new disclosures are required to be included within all initial registration statements, and all post-effective amendments to effective registration statements, filed on or after December 5, 2004.

On February 25, 2004, the SEC issued for public comment a proposal to require mutual fund managers to impose a mandatory 2% short-term trading fee on all redemptions that occur within 5 business days of purchase of the shares being redeemed, applicable to all funds except money market funds, exchange-traded funds and mutual funds that encourage active trading and that have provided disclosure to investors that such trading will likely impose costs on the fund (the "Fee Proposal"). The fee is intended to be a "user fee" to reimburse the fund for the cost of accommodating frequent traders, regardless of their motivation. The Fee Proposal includes the following features designed to prevent the fee from affecting most ordinary redemptions by smaller investors:

- the fee would apply on a first-in, first-out basis, with the fee first being calculated on shares held the longest period of time;
- there would be a *de minimis* threshold - the fund would not be required to impose a redemption fee of $50 or less. This means that a mutual fund could waive redemption fees on mutual fund redemptions of $2,500 or less; and
- there would also be provision for the waiver of this fee for redemptions of up to $10,000 if the investor can demonstrate an unanticipated financial emergency. This means that some funds would be available to a shareholder in a financial emergency without imposition of the redemption fee.

The Fee Proposal is still under consideration. It is not intended to be a stand-alone response to the inappropriate short-term trading problem in the U.S., nor is it designed solely to address large traders; rather it supplements the other measures the SEC has recently taken and that it proposes to take to address inappropriate trading activity. The SEC stated that a short-term trading fee together with fair value pricing can reduce, if not eliminate, the profits that market timers seek to extract from the funds.[8]

As the SEC noted in its Fee Proposal a significant proportion of market timing transactions are meant to exploit price discrepancies between the value assigned to a fund's portfolio securities for purposes of the fund's net asset value calculation and the current market value of those securities. Accordingly, the SEC reiterated that the principal solution to deterring such market timing transactions is accurate calculation of a fund's net asset value each day, using current and not stale prices. The *Investment Company Act* requires U.S. mutual funds to calculate a "fair value" for a portfolio security, as determined in good faith by the fund's board of directors, when market quotations for the security are unavailable or unreliable[9].

We understand that the SEC may issue further guidance with respect to fair value pricing in 2004.

United Kingdom

In the United Kingdom, the Financial Services Authority ("FSA") conducted an investigation of trading activity in collective investment schemes (mutual funds) which it regulates, concentrating on stale price market timing. As part of its investigation, the FSA examined 9,620 transactions in funds managed by 31 firms. Only 118 transactions required follow-up during on-site visits to 25 firms. In a press release dated March 18, 2004, the FSA noted that there was some evidence of market timing in funds, however, most occurrences were short-lived with fund managers taking swift action to terminate relationships where clients attempted to time funds.[10] Total amounts involved are expected to be less than £5 million.

The FSA noted that its Principles and Rules provide sufficient tools to manage the conflicts posed by market timers. The ability of funds to price underlying assets at a fair value and the ability to suspend market timers, as well as measures to reduce dilution and otherwise increase the cost (and decrease the attractiveness) of market timing, appear to have been proven effective.

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[8] U.S. Securities and Exchange Commission. *SEC Proposes Mandatory Redemption Fees for Mutual Fund Securities,* Press Release 2004-23, http://www.sec.gov/news/press/2004-23.htm (February 25, 2004)

[9] Investment Company Act of 1940, section 2(a)(41)(B). This subsection defines "value" as: "(i) with respect to securities for which market quotations are readily available, the market value of such securities; and (ii) with respect to other securities and assets, fair value as determined in good faith by the board of directors." This definition also is used in Rule 2a-4 under the 1940 Act as the required basis for computing a fund's current NAV.

[10] Financial Services Authority, *FSA Statement on market timing*, Press Release FSA/PN/024/2004, http://www.fsa.gov.uk/pubs/press/2004/024.html (March 18, 2004)

Among regulatory measures, the FSA is pushing ahead with reforms to fund regulation (CP 185) that include clarification of the measures available to deter market timing, including fair value pricing and clarification of the scope for a fund manager to decline a transaction (usually referred to in the U.K. as a "deal"). In a January 2004 meeting with the FSA, the industry proposed the use of fair value pricing in preference to mandatory shifts in funds' valuation points (a valuation point being the time each day at which a fund's net asset value is calculated).

Notably, with respect to the problem caused by order aggregators, who place combined deals for several customers, potentially hiding the activities of market timers, the FSA noted that if fund managers are unable to satisfy themselves that potentially suspicious deals are not on behalf of market timers, they need to use the range of tools at their disposal to not allow any unduly preferential dealing arrangements.

Luxembourg[11]

In November 2003, the Luxembourg Commission de Surveillance du Secteur Financier ("CSSF") sent a questionnaire to 407 service providers with respect to late trading and market timing. Although it has not finalized its findings, the CSSF has stated that based on the responses received, the situation is overall under control, even though some supplementary information will be required in certain isolated instances, and the CSSF may carry out some on-site inspections to verify the information provided.

The CSSF stated that it is satisfied "that the entities surveyed have taken or are taking the necessary additional measures of protection" on these issues.[12] The CSSF proposes to issue guidelines to the industry to serve as a reference for future decisions and choices, taking into account the specifics of the Luxembourg fund industry.

In June 2003, the Association of the Luxembourg Fund Industry ("ALFI") created a working group to investigate fair-value pricing and arbitrage protection for funds. As a result of the fund industry scandals in the U.S., the working group focussed on formulating guidance and recommendations on the late trading and market timing issues, bearing in mind that Luxembourg-domiciled funds are invested throughout the world's time zones and the sale of their securities is generally undertaken by intermediaries domiciled outside Luxembourg and supervised by other nations' regulators.

ALFI stated in its recommendations that it is the responsibility of the fund's board of directors to take all reasonable steps to prevent late trading, market timing and fund arbitrage from taking place. It is also recognized that some fund investors operate a short-term trading strategy, known as "excessive or market trading", without any intention of taking advantage of pricing inefficiencies. This is still detrimental to other investors, and ALFI recommends funds' boards

[11] Recent figures released by the CSSF indicate that the Luxembourg fund industry comprises 7,820 funds and sub-funds, just over €1 trillion of net assets under management and has an 80% market share in European cross-border UCITS distribution.
[12] Commission de Surveillance du Secteur Financier, Press Release, http://www.cssf.lu/docs/press_release_late_trading.pdf (February 17, 2004)

of directors take the appropriate measures to protect investors from disadvantages cause by such strategies.[13]

As best practices for the Luxembourg fund industry, ALFI recommends:

1. Strict application of order cut-off time to prevent late trading;
2. Valuation point after order cut-off time (forward pricing) to prevent late trading;
3. If the board of directors of a fund determines that investors in that fund could be exposed to market timing, it should employ measures to minimize such risk, such as:
    a. Fair value pricing;
    b. Trading fees to discourage short-term and frequent trading. Such fees can be transaction fees, dilution levies or bid/offer spreads; and
    c. Monitoring to identify whether market timing is taking place.
4. Information on Portfolio Holdings - to be disclosed so as not to facilitate market timing; and
5. Disclosure – the fund's prospectus should include the fund's policy with respect to prevention of market timing.

[13] Association of the Luxembourg Fund Industry, *Protecting Investors from Late Trading and Market Timing*.