IRISH FUNDS INDUSTRY ASSOCIATION

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Via e-mail: moneymarket@iosco.org

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Commissions C / Oquendo 12
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Public Comment on Money Market Fund Systemic Risk Analysis and Reform Options

Dear Mr. Salem:

The Irish Funds Industry Association (IFIA) is the industry association for the international investment fund community in Ireland, representing the custodians, administrators, managers, transfer agents and professional advisory firms involved in the international fund services industry in Ireland.

As the leading international funds centre there is in excess of 2,000 billion Euros of assets in almost 12,000 investment funds administered in Ireland as of March 2012. These assets are comprised of 1,116 billion Euros in Irish domiciled funds, of which 871 billion Euros are in UCITS funds, and more than 900 billion Euros in non-Irish funds administered in Ireland. Furthermore, as of March 2012, assets in Irish domiciled Money Market Funds stood at 296 billion Euros. Accordingly, all developments in the investment funds arena and specifically Money Market Funds are of particular importance to the Irish industry.

The IFIA welcomes both the publication of, and the opportunity to comment on the International Organization of Securities Commissions ("IOSCO") consultation on Money Market Fund ('MMF') Systemic Risk Analysis and Reform Options ("the Consultation Paper").

MMFs are highly prized by a wide variety of investors, both retail and institutional. MMFs have gained widespread acceptance because of their ease of use, compelling investment benefits and conservative risk profile. MMFs provide investors with cost-effective access to investment expertise, including credit risk analysis, and enable broad diversification away from the banking system and across individual issuers. In addition, MMFs have emerged as a simple, stable and important source of short-term funding for a broad range of issuers. This

includes financial, corporate, municipal and other government entities. As such, MMF funds play an important role in support of economic activity.
Globally, MMFs are already subject to subject to an extensive, well-defined and rigorous regulatory framework. In the wake of the financial crisis the European Commission moved promptly in 2009 to enhance the regulation of investment funds through revision of the Undertakings for Collective Investment in Transferrable Securities (UCITS), which was followed in May 2010 by the adoption by the Committee of European Securities Regulators (now European Securities and Markets Authority) of Guidelines on European money market funds which went into effect in 2011. In the United States, following the financial crisis, the Securities and Exchange Commission ("SEC") introduced broad amendments to Rule 2a-7 of the Investment Company Act of 1940, the primary framework for the regulation of U.S. MMFs. Both of these regulatory initiatives focused on enhancing liquidity, maturity, credit, issuer diversification and disclosure requirements designed to promote stability and investor protection. In our view, these measures have significantly reduced the potential risks that MMFs present to the financial system.

The comparison, among regulators, of MMFs with banks has resulted in a significantly overstated focus on fund pricing, and the deeply flawed recommendation that MMFs should be required to adopt a variable net asset value (VNAV). In the strongest terms, we do not believe there is a substantive difference between CNAV and VNAV funds and it is selfevident that a VNAV fund would remain prone to redemptions if investors lost confidence in its assets, and such redemptions would cause short-term funding to be withdrawn from financial institutions, businesses and governments.

Changing the pricing mechanism of MMFs will neither disincentivise investor redemptions, nor better enable them to meet such redemptions as arise without relying on secondary money markets. It will merely undermine their utility to a large number of investors. Introduction of a mandatory floating NAV requirement would challenge the defining characteristics of MMFs and undermine their ability to respond to well-developed investor expectations relative to price stability, daily liquidity and ease of use. In addition, this may have the perverse effect of driving investors towards less-regulated and less transparent investment products, thereby increasing rather than decreasing potential systemic risk. We strongly recommend IOSCO should reject this option.

The IFIA believes the most appropriate regulatory response is the development of a globally consistent approach, with common standards applicable throughout the MMF industry.

The IFIA echoes IMMFA's view that the main objective of MMF reform should be to ensure that funds have sufficient natural liquidity to meet redemption payments and recommendations that:

> IOSCO should specify minimum liquidity requirements for MMFs, in order to be able to make redemption payments without relying on secondary market liquidity. Those requirements need to be proportionate to the role of MMFs in providing short term funding to the banks, companies and governments. The Securities and Exchange Commission (SEC) has struck a sensible balance by requiring US MMFs to hold at least 10% of their assets in overnight cash, and 30% in assets that mature within one week. The IMMFA code of practice requires no less than five percent of net assets in

securities which mature the following business day and no less than twenty percent of net assets in securities which mature within five business days.

ISOCO should require MMFs to know their clients, in order to enable them to monitor subscription/redemption cycles and manage risks arising from shareholder concentration. Such measures may need to be accompanied by requirements on intermediaries to disclose the identity of underlying investors to MMFs.

Thank you once again for the opportunity to comment on this important matter. MMFs provide a simple but valuable intermediation service between lenders and borrowers in the short-term debt markets and provide enormous benefits to a broad range of investors and issuers. Any changes to the current regulatory framework must be global in nature, measured, carefully considered and developed in light of the regulatory enhancements introduced already introduced following the financial crisis achieving the objectives sought and avoiding any unintended consequences such as a move to unregulated products.

Attached are some detailed responses to the questions posed in the Consultation paper. All responses and questions refer to the numbering used in the Consultation Paper.

QUESTION ONE

Do you agree with the proposed definition of money market funds? Does this definition delimit an appropriate scope of funds to be potentially subject to the regulatory reform that the FSB could require to be put in place, with an objective to avoid circumvention and regulatory arbitrage?

The Report defines a MMF as "an investment fund that has the objective to provide investors with preservation of capital and daily liquidity, and that seeks to achieve that objective by investing in a diversified portfolio of high-quality, low duration fixed-income instruments."

We agree with this definition, since it is consistent with the way institutional investors use MMFs, i.e. to manage credit risk through diversification. Specifically, the cash assets of institutional investors are in excess of the amount guaranteed by deposit insurance schemes. To that extent, investors are exposed to credit risk when they make deposits. They manage that risk by diversifying their deposits between creditworthy banks. For example, company treasury departments typically maintain a 'treasury policy' which specifies an approved panel of banks and associated counterparty exposure limits. But there are constraints on the level of diversification that investors can achieve on their own, in particular because they don't have sufficient expertise to assess issuer credit worthiness. Therefore, investors use MMFs as a means of 'outsourcing' credit analysis [1]and achieving diversification.

However, we note two limitations to this definition:

First, it focuses on investment funds and ignores other wrappers which investors can use to achieve exposure to the same portfolio as a MMF in pursuit of the same investment objective (for example unit linked contracts of insurance, certificates and unregulated schemes). Therefore, if burdensome reform proposals are exclusively focussed on investment funds, then they will be at a competitive disadvantage relative to those other wrappers. This is a recurring issue in the regulation and taxation of investment funds relative to other wrappers, and seems unlikely to be resolved in the context of MMF reform. In order to mitigate the issue, reform proposals ought not to be burdensome.

Second, and as noted elsewhere in the Report, another category of investment fund exists which takes slightly more credit, market and liquidity risk than MMFs in order to achieve higher yields. That category of fund is often described as an 'enhanced MMF'. By virtue of taking more risk, enhanced MMFs are more likely to encounter losses than MMFs, as indeed occurred in 2007. It is therefore important that investors should clearly distinguish those two categories of fund, otherwise there is a risk that losses/redemptions from one will cause a'contagion' effect to the other[2]. We therefore recommend that IOSCO's should limit the use the words 'cash', 'money' or 'liquidity' to MMFs.

1 Since the financial crisis investors have shown greater interest in understanding the credit analysis processes employed by MMFs, who, in turn, have sought to distinguish themselves from one another by the quality of their process. We would be happy to provide IOSCO with marketing materials from a sample of sponsors, describing their credit analysis processes.

2 This issue was identified in the report by the High Level Report Group on Financial Supervision in the EU, which noted: *"This highlights in particular the need for a common EU definition of money market funds, and a stricter codification of the assets in which they can invest in order to limit exposure to credit, market and liquidity risks."*

SYSTEMIC RISK ANALYSIS

QUESTION TWO

Do you agree with the description of money market funds' susceptibility to runs? What do you see as the main reasons for this susceptibility?

The Report says that MMFs are vulnerable to runs because each shareholder has an incentive to redeem their shares before others when there is a perception that the fund might suffer a loss. That incentive has been described elsewhere as providing investors with a 'first mover advantage'.

It is arithmetically true that redemptions from a CNAV fund concentrate losses amongst remaining investors. It is also arithmetically true that redemptions from any MMF (whether CNAV and VNAV) concentrate less liquid assets amongst remaining investors [3]. But, since these 'first mover advantages' have been a feature of MMFs for some thirty years, and during that period MMFs have only suffered one run (in 2008), it follows that the first mover advantage cannot be a sufficient explanation for the run.

A much more plausible explanation follows from the definition of a MMF given above, i.e. "an investment fund that has the objective to provide investors with preservation of capital and daily liquidity…" Specifically, if investors have reason to believe that a MMF may no longer be able to meet its investment objective, then they are liable to redeem.

In September 2008 a series of headline events caused investors to lose confidence in the solvency of the financial system as a whole, and the banking system in particular. 'Prime' MMFs invest substantially all of their assets in deposits and securities issued by banks and other short-term issuers. US investors [4] therefore redeemed because they were worried about losses that prime MMFs might be exposed to.

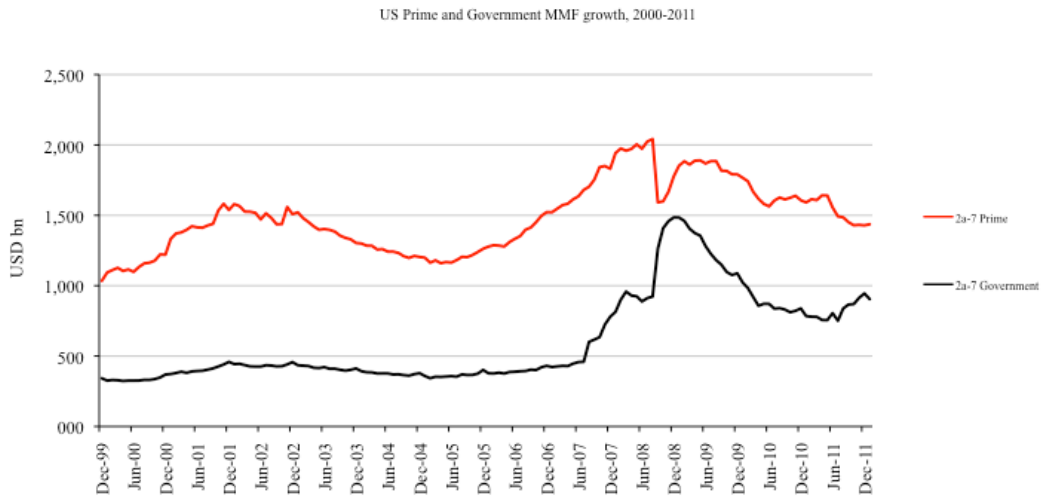
3 In fact, all investment funds and pooled products create a first mover advantage.

4 Why did investors redeem from prime MMFs in greater numbers in the US than in Europe or other countries? News stories about MMFs are reported in both the financial and mainstream media in the US - presumably because the high level of US retail investment in MMFs makes them 'news worthy'. However, outside of the US, MMFs remain a niche product and receive little coverage, even in the financial media. Perhaps widespread reporting on MMFs in the US in 2008, perpetuated investors' anxiety about possible losses in prime MMFs?

QUESTION THREE

Do you agree with the description of the role of money market funds in short-term money markets? To what extent this role may create risks for short-term funding markets and their participants? Are there changes to be taken into account since the 2007-2008 experience? What are the interdependencies between banks and MMFs and the risks that are associated?

We agree that MMFs are important providers of short-term funding to financial institutions, businesses and governments. Therefore, if a loss of confidence in the banking system causes investors to redeem from prime MMFs, then this will result in a withdrawal of short term funding, with serious macroeconomic consequences.



However, it is important to contextualise this observation:

First, institutional investors were not the only party to lose confidence in the banking system in 2008: far more significantly, banks lost confidence in one another! Consequently, the interbank market closed, which was a substantial cause of the funding crisis they experienced, and their reliance on emergency liquidity support from central banks. Second, in a 'world without MMFs', institutional investors would behave in essentially the same way, i.e. seek to manage credit risk by switching their credit exposure, albeit by switching from direct deposits to direct holdings of Treasuries.

Third, a number of reforms have already been made to bank regulation which reduces their reliance on funding from institutional investors (including MMFs). Specifically, the new liquidity rules contained in the Basel accord discount funding from institutional investors towards a bank's liquidity requirement.

(We would like to sound a note of caution here: in their efforts to strengthen the balance sheets of banks and restore credibility to bank regulation, these reforms are merely passing risk from the financial system into the real economy. Specifically, and as the rate environment improves, these reforms are likely to impose significant costs on institutional investors - in particular, corporate treasurers - in the form of reduced interest rates. If those interest rates are lower than inflation, which seems likely, then institutional investors face a future in which they are exposed to negative real interest rates, i.e. the gradual erosion of the principal value of their cash. One can imagine them responding in a number of ways:

• Companies may try to manage their operations with minimal cash balances, in order to avoid the cost of carry and notwithstanding the potential liquidity risks;
• Companies may creep out along the yield curve in the search for yield, and notwithstanding the potential liquidity and credit risks;
• Companies may seek to generate returns on cash outside of the banking system, for example by lending to one another through commercial paper markets.

In any event, we are concerned that bank regulators have not fully considered the impact their reforms may have on the real economy.

In summary, and notwithstanding the above: a loss of confidence in the banking system is likely to cause redemptions from prime MMFs, and such redemptions are likely to reduce bank funding. Therefore, some commentators believe an objective of MMF reform should be to reduce the likelihood of redemptions during a financial crisis by making structural changes that either provide investors with an incentive to remain in MMFs, or impose a disincentive to redeem.

QUESTION FOUR
What is the importance of sponsor support for MMFs? What is the respective percentage of bank versus non-bank sponsors in the MMF industry? Are there differences among MMFs depending on their sponsors? What are the potential systemic risks of support or protection against losses provided by sponsors?

The risks and rewards of an investment in a MMF belong to its investors, and are described in its prospectus. There is no legal basis for investors to expect to be able to transfer downside risk to the fund sponsor (except in cases of gross negligence).

Notwithstanding the above, on rare occasions the sponsors of both CNAV and VNAV funds have voluntarily provided support to their funds. These are strictly commercial decisions: sponsors have provided support if the expected benefits (in terms of retained business) outweighed the expected costs.

However, we recognise that investors should not be encouraged to *expect* sponsors to support their MMFs. Such expectations cannot be enforced, since managers are under no obligation to support their funds, and consequently might lead investors to misunderstand and misprice the risks they are subject to when they invest in a MMF.

We do not believe that the instances of sponsor support that occurred in 2007/8 have caused investors to develop an expectation of support. We note:

First, the fact that investors redeemed from US MMFs in 2008 is *prima facie* evidence they did not expect sponsors to support their funds, i.e. if they had believed support would be forthcoming, then they would not have redeemed.

Second, since 2008 investors have required more detailed and frequent disclosure of MMF portfolios, precisely because they recognise they own the risks and rewards associated with those portfolios and ought to monitor them carefully.
In summary: whilst sponsor support might be welcome, it ought not to foster any expectations on the part of investors. Therefore, an objective of MMF reform should be to reinforce that the risks and rewards of an investment in a MMF belong to its investors, and cannot be transferred to a third party, including the sponsor or the state [5].

QUESTION FIVE
Do you agree with the description of MMF benefits? Are there other benefits of MMFs for investors than those outlines in this presentation? What are the alternatives to MMFs for investors? How has investor demand for MMFs recently evolved? What would lead investors to move away from MMFs to other financial products?

We agree with the description of MMF provided in the Report.

In particular, and as noted above, MMFs are a necessary by-product of bank regulation, i.e. since the cash asset of institutional investors are typically in excess of deposit insurance, they use MMFs to manage credit risk through diversification. We believe two things follow from this:

First, because MMFs exit to meet a legitimate economic need, any reform should be proportionate. It would not be proportionate to reform MMFs in a manner that made them uneconomic, frustrated them from meeting their investment objective, or disadvantaged them relative to direct investment.

Second, if MMFs were reformed in a disproportionate manner and, as such, became unusable by investors, then we believe either: investors would seek to manage credit risk through segregated accounts, other wrappers (unit linked contracts of insurance, participatory notes etc) or unregulated schemes; or would alternatively be forced to manage that risk by deliberately concentrating their deposits in a few select banks in an effort to make them 'too big to fail'. Neither outcome would be satisfactory from a systemic perspective. Therefore, an objective of MMF reform should be to ensure the continued viability of MMFs.

QUESTION SIX
Do you agree with the proposed framework comparing money market funds and bank deposits? Are there other aspects to consider?

We disagree with the proposed framework comparing MMFs with bank deposits.
First, the comparison is based on a tautology. The Report defines a MMF as: "an investment fund that has the objective to provide investors with preservation of capital and daily liquidity…": a MMF that achieves that objective will necessarily be 'like' a bank deposit, which also provides preservation of capital and daily liquidity.

Second, the comparison is selective. In pursuit of its investment objective, a MMF invest in high quality, low duration fixed income instruments, notably deposits, commercial paper and short dated government securities. Those investments overwhelmingly redeem at par and exhibit minimal mark-to-market movements in the interim. The point, of course, is that return of an investment fund is inevitably 'like' the return of the assets that it invests in. A MMF invests in bank deposits, government securities and commercial paper because they are most likely to deliver its investment objective. That means a MMF is 'like' bank deposits, government securities and commercial paper, in the same way that an Indian equity fund is 'like' Indian equities, or an emerging market debt fund is 'like' emerging market debt.

5 In the United States the Federal Reserve is understandably anxious that its Temporary Guarantee Programme should not have fostered expectations of future state support for MMFs

6 "Shadow Banking, Financing Markets and Financial Stability", Paul Tucker, 21 January 2010, www.bankofengland.co.uk

Third, and more importantly, the comparison leads to illogical policy recommendations. Specifically, some regulators have recommended that MMFs would be less 'bank deposit like', if CNAV funds were forced to adopt a variable NAV. For example, Paul Tucker, Deputy Governor of the Bank of England, has said[6]:

"Echoing the concerns that Paul Volcker is reported to have expressed at internal Federal Reserve meetings around thirty years ago, the Bank of England believes that Constant-NAV money funds should not exist in their current form. They should become either regulated banks or, alternatively, Variable NAV funds that do not offer instant liquidity."

Setting aside for now whether there is a substantive difference between CNAV and VNAV funds (which we discuss in our answer to question seven) it is unclear to us why regulators suppose such price fluctuations would mitigate any of the substantive risks described in questions two, three and four. Specifically: investors would still be likely to redeem from a VNAV fund if they lost confidence in its assets; such redemptions would cause short-term funding to be withdrawn from financial institutions, businesses and governments; and sponsors would still seek to support VNAV funds if they considered it profitable to do so.

Notwithstanding the above, we recognise the comparison of MMFs with bank deposits has profoundly influenced the way regulators think about shadow banking. Specifically, it has led them to decompose banking into its constituent activities: non-bank entities that perform any of those activities are deemed to be part of the shadow banking system. Therefore, in Appendix A we consider how MMFs measure up to that definition.

QUESTION SEVEN

Are there other similarities or differences between CNAV and VNAV funds which would be useful for the analysis? Is there evidence (based on representative samples) showing differences in the fluctuation of the funds' NAV depending on their model? What is the extent of the use of amortised cost accounting by VNAV funds? Has this practice evolved over time?

As described above, the comparison of MMFs with bank deposits has caused the reform debate to fixate on fund pricing, and a simplistic narrative:

- CNAV = deposit like
- VNAV = not deposit like

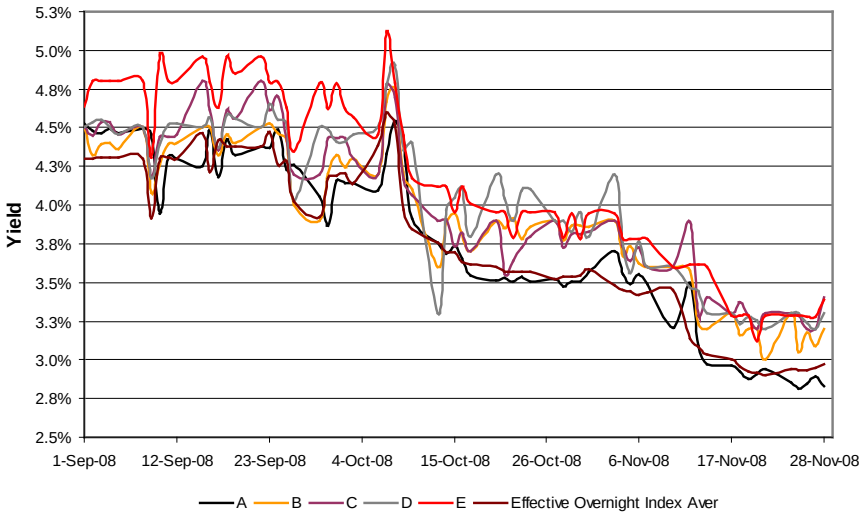
We appreciate IOSCO's efforts to step back from this narrative, and look at the substantive differences and similarities between CNAV and VNAV funds.

The expressions CNAV and VNAV are somewhat misleading, and we believe poorly understood. CNAV is often, incorrectly, supposed to refer to a MMF that makes a promise or commitment to provide security of capital, whereas VNAV is often supposed to refer to a MMF whose share price regularly fluctuates in proportion to the market value of its underlying portfolio. Neither supposition is correct.

Appendix B provides a detailed description of the pricing mechanism of CNAV and VNAV funds which meet the European definition of a 'short term money market fund'. We show that CNAV and VNAV funds have much more in common than is often thought. Both use amortised accounting to estimate market prices, although subject to different constraints. And both can offer accumulating and distributing shares, which impact the constancy or variability of investment returns to investors.

To evidence this point, and since the most developed market for VNAV funds is in France, we have looked at the share prices of six of the largest French VNAV 'monétaire' funds (as at June 2007) over a ten year period (from January 1999 to September 2009). Since these funds only offer accumulating shares, we assessed the variability of their share price by looking at their daily yields: a negative yield implies that the day's accumulation of income was more than offset by a mark-to-market loss. We estimated the daily yield by comparing the accumulated share price from one day to the next, and making adjustments for accumulations over weekends and Bank Holidays.

In the case of five of those six funds, at *no point* during the ten-year period did they post a negative yield, i.e. daily mark-to-market losses were never substantial enough to cause the price of the funds to fall. This includes the period between September and November 2008 illustrated below, when markets were significantly dislocated. This is a surprising finding - one might have expected these funds to have experienced significant mark-to-market losses in this period, which would have manifested as a negative yield in the graph below (whereas, in fact, the yield never fell below circa 2.8%). In other words, from an investor's perspective, these funds behaved much the same as if they were CNAV, albeit their yields were presumably more volatile.



Source: HSBC

This is not intended to imply any criticism of the pricing mechanism of French VNAV funds: rather, it is simply intended to illustrate that the distinction between CNAV and VNAV funds is often overstated.

That ought to come as no surprise. As described above, institutional investors are exposed to credit risk, and use MMFs to manage that risk through diversification. Therefore, it is natural that the investment objective of a MMF should be to provide security of capital and high levels of liquidity, and consequently the return on a VNAV fund should be similar to that on a CNAV funds; if it weren't, then the fund wouldn't be much use to investors.

7 "Pricing of U.S. Money Market Funds", ICI, January 2011, www.ici.org. The ICI collected weekly data on shadow prices from a sample of 53 taxable money market funds. In April 2010, those funds accounted for 11 percent of the number and 27 percent of the assets of all taxable money market funds, about the same percentages as in August 2008.

Ultimately, we believe IOSCO needs to develop a *definition* of CNAV and VNAV. Logically, that definition should require VNAV funds to exhibit maximum price volatility consistent with their investment objective, i.e. a true VNAV fund should be defined as MMF that:

- Does not use amortised cost accounting;
- Does not use interest rate swaps;
- Prices its shares to a large number of decimal places; and
- Distributes its net income.

How variable would a true VNAV fund be? As described in Appendix B, CNAV funds have to calculate a 'shadow price' as though they were true VNAV funds. Research by the ICI[7] shows that the average shadow price of US prime MMFs between 2000 and April 2010 was 0.999977 (i.e. an average variation from the CNAV of 0.23bps). During that period, the highest average shadow price was 1.0020 (i.e. +20bps variation from the CNAV) and the lowest average shadow price was 0.999980 (i.e. -20bps variation from the CNAV).

QUESTION EIGHT

What is the importance of ratings in the MMF industry? What is the impact of the monitoring function of credit rating agencies for MMFs? What are the potential systemic risks associated with ratings in the MMF industry?

We generally support efforts to reduce industry reliance on credit ratings, however credit ratings are a widely accessible and very useful filter for the initial assessment of creditworthiness. While MMF managers should, as required by SEC Rule 2a-7 and UCITS risk management practices, conduct their own additional assessment of pertinent risks, the use of credit ratings helps ensure the existence of a valuable minimum industry-wide benchmark. Indeed, in the absence of a uniform minimum standard, more aggressive MMF managers may be incentivized to take on additional risk in the pursuit of higher returns.

QUESTION NINE

Are existing rules adequately addressing risks regarding the management of collateral from money market funds? What are the risk management processes currently in place with regard to repo and securities lending transactions? Do MMFs present unique issues with regard to their use of repo markets or would general policy recommendations that the FSB may issue regarding repo markets be applicable?

Repurchase agreements are used by MMFs to invest cash for short periods, typically overnight. MMFs have increased their use of repurchase agreements since the credit crisis as they prefer the high levels of liquidity provided by these overnight instruments, and to receive collateral in return for lending cash rather than placing money on deposit on an unsecured basis.

The majority of repurchase agreements executed by MMFs are collateralised with government securities. However, over the past few years some MMFs, particularly US MMFs, have begun execute repo collateralised with non-government securities. Haircuts differ between markets, for example: the standard haircut in the US domestic money markets for US government collateral and in certain European jurisdictions for US, UK and European government collateral is 102%; whereas in the French domestic market there is no over collateralisation for repurchase agreements backed by Eurozone government collateral. As with haircut levels, there is no standard settlement process for repurchase agreements. For example, some markets such as the French domestic market for repurchase agreements settlement is conducted on a bilateral basis whilst in other European markets and the US market settlement is conducted on a tri-party basis using a central clearing agent.

The SEC's Rule 2a-7 includes rules specific to the use of repurchase agreements. Repurchase agreements are an eligible investment for US MMFs with certain provisions. For example: all repurchase agreements maturing beyond 7-days must be included in the funds illiquid bucket; repurchase agreements backed by US government collateral can look through to the collateral for diversification purposes; repurchase agreements backed by non-government collateral must follow standard diversification requirements; and all repurchase agreement counterparties must be reviewed for credit quality assessment by the fund.

IMMFA's Code of Practice also includes a number of controls that relate to repurchase agreements. These controls refer to the credit quality of the counterparty for any repurchase agreement, reference to the nature of the collateral accepted and appropriate haircut levels and the maximum tenor of any repurchase agreement before it is considered illiquid. The relevant parts of IMMFA's Code of Practice are listed below. MMFs that are rated by a CRA also have guidelines they are required to adhere to that are specific to repurchase agreements:

"IMMFA funds may utilise collateral in repurchase agreements provided the assumed internal or explicit short-term rating of repurchase agreement counterparty is at least A1, P1 or F1, and the relevant Member has experience of utilising such collateral. A suitable haircut should be imposed and consideration should be given to how quickly the collateral may be accessed having regard to the applicable framework.

…have more than twenty five percent of net assets invested with a single repurchase agreement counterparty, unless that counterparty is either a triple-A rated sovereign, or the counterparty is explicitly guaranteed by a triple-A rated sovereign...

…have more than five percent of net assets in illiquid securities. Members should determine which securities are considered illiquid, but this should include any deposit or repurchase agreement with a residual maturity of five business days or more."

ESMA's money market fund definitions have no specific guidelines related to repurchase agreements.

With the exception of ESMA's MMF definitions which could benefit from specific guidelines related to repurchase agreements, we believe there are sufficient risk controls for IMMFA members MMFs.

We do not believe that MMFs present any unique issues regarding their use of the repo market and therefore do not require specific consideration as part of the FSB's broader review of the repo market. It is important that the FSB's review of the repo market does recognise the existing criteria that certain parts of the MMF industry, including IMMFA member funds, are require to follow.

QUESTION TEN

Are the above-mentioned changes in the environment of MMFs relevant factors to take into consideration? What are some of the implications for regulatory options? Are there other aspects to consider?

The Report identifies various environmental changes which should be taken into account when contemplating further reform:

- The current low interest rate environment means there is little capacity to increase costs on either MMF investors (who are currently receiving a marginal yield, particularly in the case of USD funds) or MMF sponsors (who are waiving fees in order to maintain that marginal yield).
- Recent regulatory reforms of MMFs should be taken into account. In the case of the European Union, the CESR definition of MMFs meets the reform agenda set out in the Report on the High Level Group on Financial Supervision (the 'de Larosière report'). In the case of the USA, the significant changes to rule 2a-7 were tested in the summary of 2011 when US MMFs met, without incident, large volumes of shareholder redemptions during periods of significant market turmoil, including the historic downgrade of U.S. government debt. Currently, we understand the majority of the Commissioners of the SEC are of the opinion that those reforms should be given time to prove themselves before further action is taken.
- As previously noted it is the view of the IFIA that it is critically important that any reform of money market fund regulation be considered and implemented on a global basis.
- Recent regulatory reforms of banks should be taken into account. As described above, the new liquidity rules in Basel III reduce banks' reliance on institutional funding. Also, an objective of bank regulation is to insist that bond holders and uninsured depositors will not be bailed out in the event of a future banking crisis (indeed, in certain circumstances, they may now be bailed in). In that case, regulation should also recognise the legitimate need of investors to manage credit risk, including through MMFs.

QUESTION ELEVEN
Do you agree with the systemic risk analysis and the rationale for reform presented in this section? Are there other factors to consider?

We agree with the systemic risk analysis provided by the Report, with two exceptions:

First, and as described above, CNAV and VNAV funds provide essentially the same return to investors and pose essentially the same risks. We therefore see no need to distinguish between them for regulatory purposes. If a distinction were made that disadvantaged one form of fund relative to the other, then it would give some MMF providers a competitive advantage over the other. Unless very carefully argued and evidenced, such competitive advantages would undermine confidence in the regulatory process: in particular it would suggest regulators are advancing national commercial interests/agendas rather than a substantive regulatory agenda. (That said, we recognise and appreciate that the Report tries to strike a balance on the CNAV/VNAV issue.)

Second, and for understandable reasons, the Report tries to keep an open mind on whether reform should draw on securities regulation or banking regulation. We believe securities regulation provides the most appropriate model, as we do not believe that investors use MMFs as an alternative to banks

In summary, we believe the Report establishes four clear criteria against which regulatory reforms can be assessed, namely:

Liquidity Criteria (question two)
A loss of confidence in the banking system may cause a 'flight to quality' by some investors, including switching between prime and Treasury MMFs. The only credible way of stopping that

flight to quality is to restore confidence in the banking system, and quickly. Therefore, in the intervening period and in the absence of a functioning secondary market, the main objective of MMF reform should be to ensure that funds have sufficient natural liquidity to meet redemption payments, otherwise there is a risk that MMFs would be forced to gate, which would transmit the crisis into the real economy.

Redemptions criteria (question three)

A loss of confidence in the banking system is likely to cause redemptions from prime MMFs, and such redemptions are likely to reduce bank funding. Therefore, an objective of MMF reform should be to reduce the likelihood of redemptions during a financial crisis by making structural changes that either provide investors with an incentive to remain in MMFs, or impose a disincentive to redeem.

Risk transfer criteria (question four)

Whilst sponsor support might be welcome, it ought not to foster any expectations on the part of investors. Therefore, an objective of MMF reform should be to reinforce that the risks and rewards of an investment in a MMF belong to its investors, and cannot be transferred to a third party.

Viability criteria (question five)

MMFs are a necessary by-product of bank regulation, i.e. they enable institutional investors to manage credit risk through diversification. Because MMFs exit to meet a legitimate economic need, any reform should be proportionate. Therefore, an objective of MMF reform should be to ensure the continued viability of MMFs. We recognise those criteria may be in tension with one another, and so reform also has to be assessed 'in the round'.

POLICY OPTIONS

QUESTION TWELVE

Do you agree with the benefits of imposing a mandatory move from CNAV to VNAV, which would amount to prohibiting the use of amortized cost valuation for any securities held by a MMF? Are the challenges identified in the US context valid in other jurisdictions currently authorizing CNAV funds? How could these challenges be overcome?

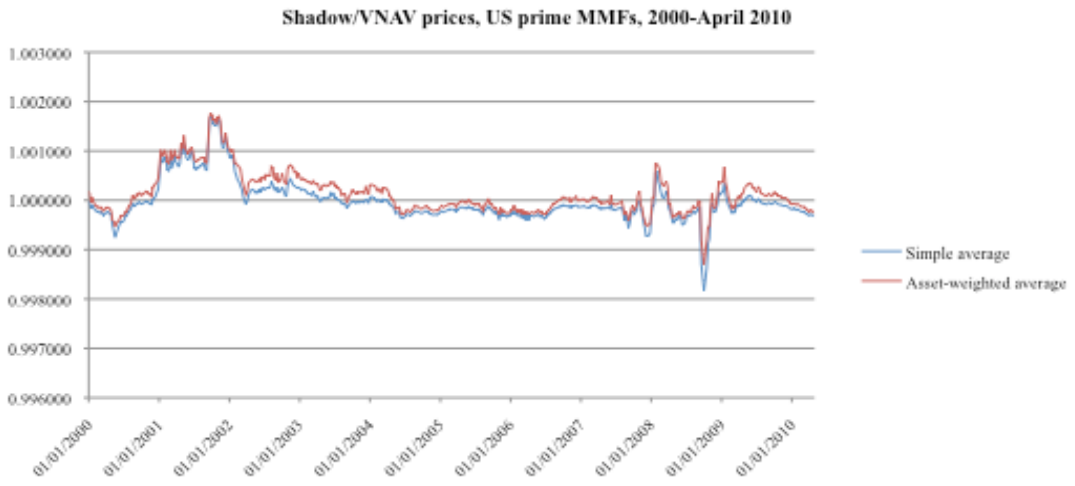
Three arguments have been made in favour of mandating a move from CNAV to VNAV[8]:

First, that VNAV funds do not provide a 'first mover advantage' and so are less prone to redemptions. We addressed this argument in our answer to question two.

Second, that VNAV funds are less 'bank deposit like' than CNAV funds. We addressed this argument in our answer to question six.

Third, that daily fluctuations in the price of VNAV funds desensitise investors to losses and therefore make them less prone to redeem in a financial crisis. We do not believe this is the case.

8 Mandating a move from CNAV to VNAV would require more than simply prohibiting amortised cost accounting. In addition it would require: prohibiting of the use of interest rate swaps; obliging funds to distribute net income; and obliging funds to price their shares to a large number of decimal places.


Shadow/VNAV prices, US prime MMFs, 2000-April 2010
1.003000
1.002000
1.001000
1.000000
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01/01/2000
01/01/2001
01/01/2002
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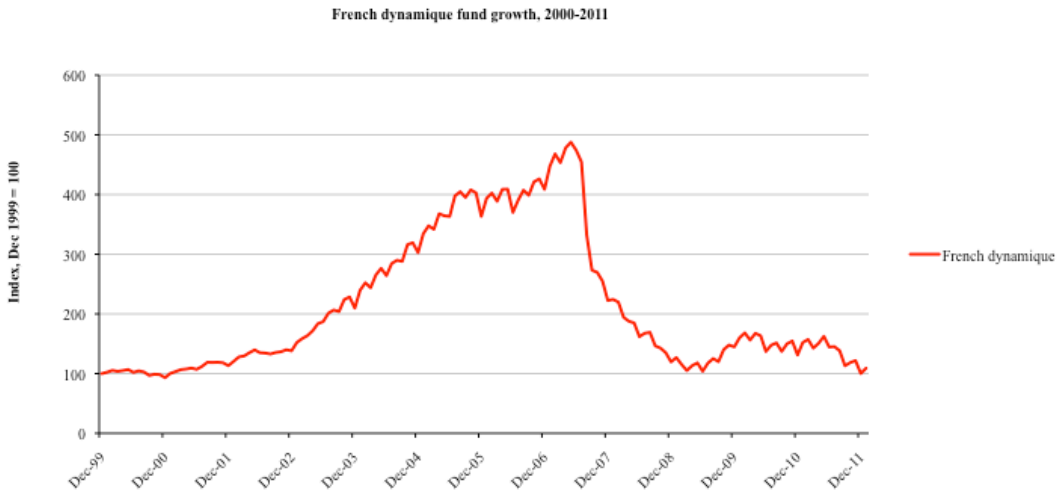
01/01/2008
01/01/2009
01/01/2010
Simple average
Asset-weighted average


French dynamique fund growth, 2000-2011
Index, Dec 1999 = 100
600
500
400
300
200
100
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Dec-99
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Dec-08
Dec-09
Dec-10
Dec-11
French dynamique

QUESTION THIRTEEN

What would be the main effects of establishing a NAV-buffer? What would be the most practical ways to implement such buffers? Should various forms of NAV- buffers be allowed or should regulators favor a single option? What would be a realistic size of the NAV-buffer and what would be the impact in terms of costs for running MMFs? In the case of subordinated shares, could the option be seen as creating a securitization position, with associated requirements in terms of retention?

Two arguments have been made in favour of establishing a NAV buffer:

First, that during a financial crisis, a NAV buffer would enable a MMF to sell assets in the secondary market at a loss in order to raise cash to meet redemption payments, without those losses impacting the price of the fund and precipitating further redemptions. Secondary markets essentially closed down in 2008, and so the loss absorbing capacity of a NAV buffer would have been of limited use in enabling funds to raise cash. The best way of enabling MMFs to meet redemption payments is to reduce their reliance on secondary markets, by focussing on natural liquidity (see our answer to question twenty one.)

Second, that during a financial crisis, a NAV buffer would mitigate the likelihood of redemptions by, in effect, 'over collateralising' MMFs and therefore disincentivising investors from redeeming for fear they would lose the benefit of that over collateralization relative to any alternative investment option. To the extent that investors did redeem, the buffer would increase relative to the NAV to the benefit of remaining investors, and so the disincentive to redeem would grow still greater.

We disagree with this argument. The options facing an investor in a prime MMF with a NAV buffer during a financial crisis would be:

- To remain in the prime MMF, in which case there is a remote chance of a loss if one of fund's assets defaults, and the ensuing loss is greater the NAV buffer; or
- To redeem from the prime MMF and subscribe to a Treasury MMF.

Faced with these options, a risk averse investor would redeem: the NAV buffer provides an insufficient incentive to remain in the prime fund, relative to the 'risk free' option of the Treasury fund.

Furthermore, the options for funding and structuring a NAV buffer give rise to additional issues:

Investor funded NAV buffer

An investor funded NAV buffer would result in transfers between different generations of investor, i.e. income retained at the expense of today's investors, would be used for the benefit of tomorrow's investors. That is not consistent with basic principals of securities regulation.

Investor funded subordinated/capital shares

We do not believe investors would invest in MMFs if they were required to make a parallel investment in riskier subordinated shares/capital shares. It defeats the purpose of their investment, i.e. to manage credit risk through diversification.

Sponsor funded NAV buffer

Some commentators have suggested that a sponsor funded NAV buffer would cause them to have a vested interest, i.e. would cause greater financial alignment of interests of sponsors and investors, and cause sponsors to take less risk with investors' subscriptions.

We are uneasy with this argument. First, sponsors already have a vested interest, insofar as they receive fees from their MMFs, and would suffer reputational damage if they mismanaged those funds. Second, it seems possible that this proposal would result in a two tier MMF industry, i.e. a top-tier comprising sponsors who have access to capital, and a bottom-tier comprising sponsors who do not have access to capital and - it has been proposed - whose funds therefore run with more liquidity and lower yields. In that case, the sponsors of bottom-tier MMFs seem likely to complain about the competitive consequences of a regulatory reform which causes them to lose market share to sponsors of top-tier MMFs thus concentrating potential risk further.

More importantly, a sponsor funded NAV buffer would enable investors not merely to manage credit risk through diversification, but substantially to transfer that risk to MMF sponsors. That would result in moral hazard, i.e. institutional investors would be disincentivised from making any direct deposits, and instead would invest all of their funds in MMFs in order to benefit from the sponsor-funded NAV buffer. That would almost certainly impose unaffordable costs on the sponsor: unless, of course, the sponsor could pass those unaffordable costs back to investors. Either way, we do not think MMFs would be commercially viable. And needless to say, a sponsor funded NAV buffer would also undermine MMFs as investment products (whose risks and rewards are attributable to its investors).

Third-party funded subordinated shares

These would give rise to essentially the same issues as a sponsor funded NAV buffer. In addition, we do not believe third-parties would invest in subordinated shares.
In conclusion, we do not support a NAV buffer: it provides questionable benefits, and imposes unsupportable costs.

QUESTION FOURTEEN

Do you agree with the description of the challenges associated with the establishment of a private insurance? Are there ways to address them?

We are not aware of any credible proposal to privately insure MMFs against losses. If such insurance were available, we suppose the premium would be unaffordable. Investors might just as well invest in Treasury MMFs.

QUESTION FIFTEEN

Do you agree with the description of the challenges and potential second-round effects of a conversion of MMFs into special purpose banks? Are there ways to circumvent those effects?

The Report notes the rationale for converting MMFs into a special purpose bank (SPB) is due to '…the functional similarities between MMF shares and bank deposits and the risk of runs on both'. As described in our answer to question six, we disagree with that comparison.

In any event, we don't think this is intended to be a serious proposal to reform MMFs: there is insufficient capital to capitalise a newly incorporated USD2-3 trillion SPB sector; even if there were sufficient capital, the cost would be prohibitive.

QUESTION SIXTEEN
What are the main advantages and drawbacks of two-tier system(s)? Would it be sufficient to address the risks identified? What could be the conditions applicable to CNAV funds? What could be the potential impact on investor demand? Should certain funds be exempted from certain risk limiting conditions due to their holdings?

As described in our answer to question twelve, we do not believe there are any advantages in mandating a move to from CNAV to VNAV. Therefore, neither do we believe there is any justification in developing a 'two tier' system.

Also, as described in our answer to question eleven, if a two-tier system distinction disadvantaged CNAV funds relative to VNAV funds, then it would give some MMF providers a competitive advantage over the other. Unless very carefully argued and evidenced, such competitive advantages would undermine confidence in the regulatory process.

QUESTION SEVENTEEN
Do you agree with the suggestion that reserving CNAV funds for only certain investors (i.e. retail or institutional investors) would face practical challenges and would not be sufficient to address the risks identified?

As described in our answer to question twelve, we do not believe there are any advantages in mandating a move to from CNAV to VNAV. Therefore, neither do we believe there is any justification in reserving CNAV funds for certain types of investor.

QUESTION EIGHTEEN
Regarding the different structural alternatives described in Section 1 [questions twelve to seventeen], what are the benefits and drawbacks of the different options described above? How could they be prioritized? What are the necessary conditions for their implementation?

We do not think any of the proposals in questions twelve to seventeen are credible.

QUESTION NINETEEN
What are the main benefits and drawbacks of imposing the use of marked-to-market accounting for all the instruments held by MMFs? What is the availability of market prices for securities commonly held by money market funds? Are there situations where this general principle could not be applied?

We recognise that securities regulators have a strong presumption in favour of mark-to-market prices[12].

However, we believe the use of amortised cost prices can be justified:

[12] *"…the key objective underlying CIS valuation principles is that investors should be treated fairly. Where possible, assets should be*

valued according to current market prices..." IOSCO, Principles for the Valuation of Collective Investment Schemes, Consultation Report, February 2012, www.iosco.org

First, whereas investors frequently transact in equity and fixed income securities, they tend to hold money market instruments to maturity[13]. Consequently, whereas equity and fixed income markets provide a wealth of mark-to-market prices, money markets do not. Furthermore, relatively shallow money markets provide fewer market prices than relatively deep markets: Sterling markets provide fewer than Euro markets, which provide fewer than US Dollar markets. In the absence of regular and reliable mark-to-market prices, MMFs make use of amortised cost prices as an estimate of mark-to-market prices. If they didn't use amortised cost prices, they would have to use some other estimate, such as pricing off of a yield curve[14]. In other words, in the absence of mark-to-market prices it is inevitable that an estimate of fair value would have to be made, and amortised cost has proven reliable over the years.

Second, and as described in our answer to question seven, research by the ICI shows that, between 2000 and April 2010 the average price of a USD prime VNAV fund would have been 0.999977 (i.e. an average variation from the CNAV of 0.23bps). We note that bid-offer spreads in many equity and fixed income markets are larger than that, but securities regulators are - quite rightly - relaxed about equity and fixed income funds using mid- pricing, because the dilutive consequences for subscribing investors relative to incumbent investors, or remaining investors relative to redeeming investors are, essentially, immaterial. If IOSCO were to take a stringent approach to mark-to-market pricing, it would require all investment funds to publish dual prices: a liquidation price based on offer, and a creation price based on bid. That approach would not serve investors well: it would achieve fairness at the expense of utility. Similarly, a dogmatic approach to money market funds would expose investors, on average, to 0.23bps price fluctuations, but impose significant administrative burdens on them, especially insofar as income and gains were taxed differently.

QUESTION TWENTY

Should the use of amortized cost accounting be limited, and, if so, how? Are general restrictions on funds' WAM or WAL preferable? Are there practical impediments (e.g. availability of prices) to imposing stricter requirements on the use of amortized cost accounting than current existing regimes? What would be the potential effects on MMFs' investment allocation and short-term funding markets? What monitoring should be implemented? What conditions are advisable? In particular, please describe the rationale, feasibility and effects of limiting the residual maturity of instruments to [30-60-90-other] days. What materiality threshold could be proposed?

Clearly there should be limits on the use of amortised cost prices: otherwise, if amortised prices were materially higher than mark-to-market prices, there is a risk of disadvantaging subscribing investors relative to incumbent investors, and remaining investors relative to redeeming investors. And if amortised prices were materially lower than mark-to-market prices, then *vice versa*. Existing limits on amortised accounting take a variety of forms, and need to be considered in conjunction with other risk constraints designed to protect investors, notably limits on: maximum WAM; maximum WAL; maximum final legal maturity; minimum liquidity requirements; minimum credit quality requirements; asset diversification requirements; etc. Those limits are necessarily diverse because of differences in the relative maturity and size of national economies, which means that some money markets are relatively broad and deep (i.e. include a very large number of issuers and investors, and issuance at every available maturity) whereas others are relatively narrow and shallow. Consequently, and as noted in the Report, it is unsurprising that constraints on MMFs differ between Brazil, China, France, India and the United States.

Therefore, it is not obvious to us that either of the 'options' for limiting the use of amortised cost prices discussed in the Report is necessarily superior to the other, or that other options might not also be appropriate. At this stage in the development of national and regional economies and money markets, a principals-based approach seems appropriate. For example, CESR's Guidelines Concerning Eligible Assets for Investment by UCITS provides a helpful model:

"With respect to the criterion "value which can be accurately determined at any time", if the UCITS considers that an amortization method can be used to assess the value of a MMI [Money Market instrument], it must ensure that this will not result in a material discrepancy between the value of the MMI and the value calculated according to the amortization method. The following UCITS/MMI will usually comply with the latter principles:
• MMI with a residual maturity of less than three months and with no specific sensitivity to market parameters, including credit risk; or
• UCITS investing solely in high-quality instruments with as a general rule a maturity or residual maturity of at most 397 days or regular yield adjustments in line with the maturities mentioned before and with a weighted average maturity of 60 days. The requirement that the instruments be high-quality instruments should be adequately monitored, taking into account both the credit risk and the final maturity of the instrument.

These principles along with adequate procedures defined by the UCITS should avoid the situation where discrepancies between the value of the MMI as defined at Level 2 and the value calculated according to the amortization method would become material, whether at the individual MMI or at the UCITS level. These procedures might include updating the credit spread of the issuer or selling the MMI."

QUESTION TWENTY ONE
What are the main benefits and drawbacks of imposing global liquidity restrictions? Should there be restrictions regarding (daily/weekly) liquid assets as well as regarding illiquid assets? Are global definitions of (daily, weekly) liquid and illiquid assets practical? Are there other conditions to consider (e.g. regarding the concentration of assets)?

As described in our answer to question two, a loss of confidence in the banking system may cause a 'flight to quality' by some investors, including switching between prime and Treasury MMFs. The only credible way of stopping that flight to quality is to restore confidence in the banking system, and quickly. Therefore, in the intervening period and in the absence of a functioning secondary market, the main objective of MMF reform should be to ensure that funds have sufficient natural liquidity to meet redemption payments, otherwise there is a risk that MMFs would be forced to gate, which would transmit the crisis into the real economy.

Minimum liquidity requirements directly address this issue: they better enable MMFs to meet redemptions in cash, and without relying on secondary markets.

[13] The buy side of secondary money markets remain perfectly liquid: there is no particular challenge finding a buyer for a high quality certificate of deposit with one week to mature, just relatively few sellers.
[14] Yield curve pricing money market instruments is questionable in a financial crisis. Dislocation at the far end of the curve impacts the short end, and consequently contaminates prices. We note that both the SEC and the AMF approved amortised cost prices as appropriate estimates of fair value during the financial crisis in 2007/8, subject to various constraints.

Further to reforms in 2010, US MMFs now must hold at least 10% of their assets in overnight cash, and 30% in assets that mature within one week. Therefore, in November 2010 it was reported[15] that on average US MMFs had USD260b in cash, and USD800b maturing within one week: amounts far in excess of the actual redemptions experienced in 2008. Similarly, IMMFA's Code of Practice requires members' funds to hold at least 10% of their assets in overnight cash and 20% in assets that mature within one week.

We recommend that IOSCO should impose minimum liquidity requirements on MMFs.

QUESTION TWENTY TWO

To what extent are managers able to "know their customers" and anticipate redemptions? Are there practical obstacles for managers to "know their customers" (e.g., in the case of platforms, omnibus accounts) and how could they be addressed? What are the main features of the funds' investor base to take into consideration from a liquidity risk management point of view? Should conditions, e.g., regarding the concentration of the investor base be considered? Would this requirement allow fund managers to better understand and manage the risks to which the fund is exposed?

Two arguments have been made in favour of requiring MMF managers to know their investor base:

First, redemptions by relatively concentrated investors are necessarily more impactful than redemptions by relatively unconcentrated investors. Requiring MMF managers to know their customer would enable them to identify and discourage concentrated investors. Ideally, just as MMFs diversify their assets, so they should seek to diversify their investor base.

The IMMFA Code of Practice requires Member to maintain "…a formal liquidity management policy to allow it to meet reasonably foreseeable liquidity demand, having regard to normal market liquidity… [and which should also] address concentration risk, including any concentrations arising within shareholders or sector-specific issuance." The majority of Irish domiciled MMFs operate under IMMFA guidelines.

Second, some investors have correlated cash flow requirements: for example, US companies often redeem from MMFs at fixed points in the year to meet tax liabilities. Requiring MMF managers to know their customers would enable them to more accurately model and project those cash flow requirements, and manage maturity risk more effectively.

We recommend that IOSCO should require MMF managers to know their client base.

QUESTION TWENTY THREE

Would such a liquidity fee generate a pre-emptive run? If so, when and are there ways that pre-emptive run risk could be reduced? How would shareholders react to the liquidity fee? Would it cause shareholders to transfer their MMF investments to alternative investment products? If so, which types of shareholders are most likely to make such transfers and to which products and will such a shift in investment create new systemic risks or economic, competitive, or efficiency benefits or harm? Would MMF board directors be able to impose a liquidity restriction despite potential unpopularity with investors and competitive disadvantage imposed on the fund? At what level such a liquidity trigger should be set?

[15] "Leave Money Market Funds Alone!", John D. Hawke Jr, 10 November 2011, www.americanbanker.com

The additional liquidity measures introduced since 2008 should ensure that funds have the ability to meet liquidity requirements. It is not clear how investors will react to the imposition of liquidity fees. We understand that there are differing views within the industry on this matter.

QUESTION TWENTY FOUR

How would shareholders react to a minimum balance requirement? Would it cause shareholders to transfer their MMF investments to alternative investment products? If so, which types of shareholders are most likely to make such transfers and to which products and will such a shift in investment create new systemic risks or economic, competitive, or efficiency benefits or harm?

The principal argument made in favour of a minimum amount balance requirement is that it would disincentivise investors from redeeming. We disagree with this argument.

During a financial crisis, the options facing an investor in a prime MMF which imposed minimum balances would be:
• To remain in the prime MMF, in which case there is the remote chance of a loss if one of fund's assets defaults; or
• To redeem from the prime MMF, in which case [95%] would be subscribed into a Treasury MMF, and [5%] held back in the prime fund for [30 days]. In the remote chance of a loss if one of fund's assets defaults, the investor's pro-rata share of those losses would be deducted from the held back [5%] amount.

Faced with these options, we believe a risk averse investor would redeem, since this limits potential losses pro rata to the held back amount, whereas remaining in the fund limits potential losses pro rata the entire investment. To address this issue, it has alternatively been suggested that potential losses should be *first attributed* to held back amounts in a fund, rather than attributed pro rata to held back amount. In effect, this creates a first mover *disadvantage*:

- To remain in the prime MMF, in which case there is the remote chance of a loss if one of fund's assets defaults, but that loss would be first attributed to any amounts held back from other investors who redeemed within thirty days of the default; or
- To redeem from the prime MMF, in which case [95%] would be subscribed into a Treasury MMF, and [5%] held back in the prime fund for [30 days]. In the remote chance of a loss if one of fund's assets defaults, those losses would first deducted from any held back amounts.

(In effect: if a fund's asset defaults and the percentage of the loss is greater than the percentage of the hold back - i.e. 5% in the scenario above - then it would be advantageous for an investor to redeem; otherwise it would advantageous for an investor to remain in the fund and hope that others redeem.)

Faced with these options, we believe a risk averse investor would redeem. The decision tree created by first attributing losses to held back amount is too complicated for most investors to understand, and they would simply regard the held back amount as limiting their potential downside.

Furthermore, when surveyed[16] [x%] of investors in US MMFs said they would be less likely to invest in a fund with this feature. This is unsurprising: minimum account balances would significantly complicate cash flow planning by corporate treasurers and so undermine the utility of MMFs.

On the balance of these arguments, we are opposed to minimum account balances.

QUESTION TWENTY FIVE
What are the benefits of using bid price for valuing the funds? Are there other options (such as anti-dilution levy) which could be explored to reduce shareholders' incentive to redeem?

We currently do not see a benefit in the use of bid price for valuing the funds. See question twenty three for further information re dilution levy.

QUESTION TWENTY SIX
What are the benefits and drawbacks of allowing redemptions-in-kind? Are there practical impediments to implementing this option (e.g. some portfolio securities cannot easily be divided)?

We agree that the boards of MMFs should be empowered to make redemptions-in-kind (*in specie*) to redeeming investors. We acknowledge that redemptions-in-kind could not be 'industrialised' but only made to large investors, i.e. because of limits on the horizontal division of a MMF's assets, the need to deliver those assets into a securities account; and the need to appoint an account custodian. We also acknowledge the challenge of treating the redeeming and remaining investors fairly, for example in the case of non-transferrable or indivisible assets. Notwithstanding these challenges, we think empowering the boards of MMFs to make redemptions-in-kind is a sensible part of the 'tool kit' for managing redemptions.

QUESTION TWENTY SEVEN
What are the benefits and drawbacks of requiring gates in some circumstances? Which situations should trigger gates to be imposed to redeeming investors? Would it be enough to permit gates in some jurisdictions? Would there be a risk of regulatory arbitrage?

We do not regard *widespread* gating of MMFs as desirable. In a financial crisis, that would transmit illiquidity into the real economy, and put further pressure on the banking system.

QUESTION TWENTY EIGHT
Do you agree with the suggestion that the establishment of a private liquidity facility faces challenges that make the option unworkable or do you see ways to circumvent these challenges?

As noted in the Report: "..for a liquidity facility to be effective, its structure and operations would have to be carefully designed to ensure that the facility has sufficient capacity during a crisis... . Sufficient capacity likely would only be possible through discount window access, as the MMF industry may not be able to raise sufficient capital without undue leverage.

[16] *ibid.*

We understand the Federal Reserve has ruled out providing MMFs with access to the discount window via a private liquidity facility, without MMFs converting into special purpose banks. As described in our answer to question fifteen, the economics of the MMF industry do not permit conversion into SPBs and, therefore, this is not a credible reform option.

QUESTION TWENTY NINE

What are the main benefits and drawbacks of the provisions included in current regimes referring to external CRA ratings? Are there alternatives to credit ratings that reasonably can be substituted?

We generally support efforts to reduce industry reliance on credit ratings, however credit ratings are a widely accessible and very useful filter for the initial assessment of creditworthiness. While MMF managers should, as required by SEC Rule 2a-7 and UCITS risk management practices, conduct their own additional assessment of pertinent risks, the use of credit ratings helps ensure the existence of a valuable minimum industry-wide benchmark. Indeed, in the absence of a uniform minimum standard, more aggressive MMF managers may be incentivized to take on additional risk in the pursuit of higher returns.

QUESTION THIRTY

What are the benefits of MMF ratings? Should a greater differentiation between MMF ratings be encouraged? To what extent are investors restricted in their investments to 'Triple-A' rated funds? What alternatives could there be (e.g. from other third parties)? What initiatives could be proposed to educate investors about MMF ratings?

See response to Question Twenty Nine

Further investor education generally on MMF would be beneficial and this could include further education on MMF ratings.

QUESTION THIRTY ONE

In addition to the options explored in the four sections above, do you see other areas to consider which could contribute to reinforcing the robustness of MMFs?

We recommend that regulators should require MMFs to disclose their portfolio holdings in a standardised format, and on a periodic basis. Regular, standardised disclosure would enable investors to assess risk, and exercise discipline over relatively risky MMFs. It would also enable regulators to monitor flows into and out of MMFs, and their underlying investments. The SEC already requires monthly portfolio holdings disclosure. As noted Irish domiciled funds primarily operate under IMMFA rules and IMMFA has issued non-binding guidance to its Members on standardised portfolio holdings (see Appendix D).

QUESTION THIRTY TWO
Do differences between jurisdictions require different policy approaches or would a global solution be preferable, notably to ensure a global level playing field?

As discussed in our answer to question twenty, differences in the relative size and maturity of national economies mean that some money markets are relatively broad and deep (i.e. include a very large number of issuers and investors, and issuance at every available maturity) whereas others are relatively narrow and shallow. Consequently the precise regulatory approach to MMFs is likely to vary in different countries. In addition, local tax and accounting requirements may also necessitate variations in regulation.

Nevertheless, we believe it would be desirable to ensure a minimum level of international consistency in the treatment of MMFs:
• Institutional investors often operate across national borders - corporate treasury being a good case in point - and would therefore prefer a standard approach to MMF regulation;
• In the absence of a standard approach to MMF regulation, those same cross border investors may allocate between different funds on these basis of their regulation.

We therefore believe that it is strongly advisable that any changes in money market fund regulation be effected on a consistent global basis

An important starting point would be a high level definition of a 'money market fund' that goes beyond its investment objective and includes quantitative risk constraints. We recommend:

"An investment fund that has the objective to provide investors with preservation of capital and daily liquidity; that seeks to achieve that objective by investing in a diversified portfolio of highquality, low duration fixed-income instruments; and that is subject to at least the following constraints:
• A maximum final maturity per instrument of 365 days;
• A maximum weight average life of 120 days;
• A maximum weighted average maturity of 60 days;
• A minimum 10% of the portfolio available in cash/overnight;
• A minimum 20% of the portfolio maturing within one week."

Appendix A

Shadow banking

The expression 'shadow banking' was first used by Paul McCulley of PIMCO in 2007 to refer to "…the whole alphabet soup of levered up non-bank investment conduits, vehicles, and structures."[17] Those conduits issued commercial paper to finance their holdings of securitised loans; the loans were originated/repackaged by banks; and the banks often provided liquidity lines to the conduits to support their issuance of CP. When the sub-prime crisis broke in 2007, investiors lost confidence in the conduits and this arrangement fell apart. The conduits were unable to roll-over their CP; which caused them to draw down and exhaust their liquidity lines; until, ultimately, many collapsed back into the conventional banking system. Mr McCulley likened this to a 'run' on a shadow banking system:

> *"Unlike regulated real banks, who fund themselves with insured deposits, backstopped by access to the Fed's discount window, unregulated shadow banks fund themselves with uninsured commercial paper, which may or may not be backstopped by liquidity lines from real banks. Thus, the shadow banking system is particularly vulnerable to runs - commercial paper investors refusing to re-up when their paper matures, leaving the shadow banks with a liquidity crisis - a need to tap their back-up lines of credit with real banks and/or to liquidate assets at fire sale prices."*

From time to time, commentators have sought expand this original definition of shadow banking to encompass the entities who purchased the conduits' CP - including money market funds (MMFs) - by likening those entities to 'depositors' in the shadow banking system. For example, a recent speech by Adair Turner makes such a connection, as did the original paper by the Financial Stability Board (FSB). However, that expanded definition has not caught on, for the simple reason shadow banking did not originate in 'demand pull' from investors, but in 'supply push' from the banks themselves. The supply push arose because the Basel accord did not require banks to hold risk weighted assets against the liquidity lines they provided to off balance sheet conduits; that requirement has now been added, and off balance sheet conduits/shadow banking has diminished accordingly.

Notwithstanding those reforms, the expression 'shadow banking' continues to be used and to evolve. A key moment came when Paul Volker - who has been a consistent critic of MMFs over many years - described MMFs as part of the shadow banking system, not because they funded off balance sheet conduits, but because they are 'like' bank deposits.

Mr McCulley originally used the expression shadow banking idiomatically: to refer to banks' off balance sheet conduits. But following Mr Volker, regulators now use the expression metaphorically: to refer to entities which perform activities which are 'like' those performed by banks. In pursuit of that metaphorical definition, regulators have decomposed banking into its constituent activities; non-bank entities that perform any of those activities are deemed to be part of the shadow banking system. The implication being that the performance of 'bank like' activities without the controls imposed by bank regulation, at best represents regulatory arbitrage, and at worst creates systemic risk.

[17] "Teton Reflections", Paul McCulley, September 2007, www.pimco.com

The FSB adopted Mr Volker's approach, and defined shadow banking as: 'a system of credit intermediation that involves entities and activities outside the regular banking system, and raises i) systemic concerns, in particular by maturity/liquidity transformation, leverage and flawed credit risk transfer, and/or ii) regulatory arbitrage concerns.'

How do MMFs measure up against that definition?

MMFs and maturity/liquidity transformation

MMFs perform maturity transformation, insofar investors have the right to redeem same- or next-day, but their subscriptions are invested at term.

However, the maturity transformation performed by MMFs is an order of magnitude less than that performed by banks, and is subject to tight controls. For example, IMMFA funds must maintain:

A maximum final maturity per instrument of 365 days; A maximum weight average life of 120 days;

A maximum weighted average maturity of 60 days;

A minimum 10% of the portfolio available in cash/overnight; A minimum 20% of the portfolio maturing within one week.

Furthermore, each IMMFA fund is required to have a 'liquidity policy' explaining how it manages liquidity. For example, that policy might deal with issues like investor concentration.

So, although MMFs do perform liquidity transformation, they do so subject to tighter controls than are imposed on banks (which is sensible, since, unlike banks, they don't and shouldn't have access to the discount window), and consequently their maturity mismatch is modest.

(There is a certain irony in all of this. Mr McCulley was initially supportive[18] of the way Mr Volker adapted his definition of shadow banking, i.e. to include MMFs on the grounds that they perform 'bank like' activities such as maturity transformation. However, using the same adapted definition, regulators now also consider bond funds to be part of the shadow banking system; the stock-in-trade of Mr McCulley's employer, PIMCO.)

MMFs and flawed credit transfer

MMFs are investment products. Their prospectuses provide a clear description of the risks and rewards attributable to investors, and create no expectation of explicit or implicit underwriting of those risks by the fund manager or any other party.

MMFs and leverage

MMFs are 'long only' investment funds, and do not employ leverage as part of their investment strategy[19]. By contrast, banks' ability to lever their balance sheets is essential to any meaningful understanding of their role in the economy, the systemic risks that they pose, and the regulatory regime they are subject to. This is just one of a number of fundamental differences between MMFs and banks, which account for the need for the need a different regulatory approach to each. Other differences include:

[18] "After the Crisis: Planning a New Financial Structure Learning from the Bank of Dad", Paul McCulley, May 2010, www.pimco.com

[19] Some funds are permitted to temporarily borrow in order to meet redemption payments.

Bank regulation addresses the conflicts of interest that arise between bank shareholders and depositors. Bank shareholders make a profit on the spread they earn between interest payments to depositors and interest receipts from creditors; they are incentivised to

maximise profit by maximising that spread, i.e. by making risky loans; but that conflicts with the interest of uninsured depositors (and underwriters of deposit insurance) who would prefer banks to make less risky loans in order to reduce credit risk. Bank regulation manages that conflict in a number of ways, including by imposing capital charges in proportion to the riskiness of a bank's loans to its creditors. MMFs have a completely different incentive structure. The shareholders and depositors of a MMF are one and the same, i.e. the investor in a MMF bears all the risks and rewards of the fund's investments. A MMF manager is remunerated on the basis of a fee, in a fund which cannot appreciate in value. Although conflicts of interest exist between the manager and the investor, those conflicts are quite different from those that exist in a bank.

Whereas banks invest their own funds, MMFs invest client money. Consequently, bank regulation comprises a set of incentives and disincentives designed to ensure that banks invest their funds prudently; whereas capital markets regulation (such as the UCITS Directive) comprises much more prescriptive restrictions on how MMF managers can invest their client's money, in order to ensure investor protection.

MMFs and regulatory arbitrage

Mr Volker has argued that MMFs "started decades ago essentially as regulatory arbitrage"[20]. This
is a reference to Federal Reserve Regulation Q which limited the interest rate payable on deposits with US banks. In the 1970s, the US inflation rate exceeded the regulated nominal interest rate
by a material amount and for a protracted period, and so depositors received a negative real interest rate. Consequently, investors started to invest in MMFs which were able to provide a positive real interest rate.

Regulation Q was intended to stop banks from aggressively/uneconomically bidding for deposits: it was not intended to impose negative real interest rates on depositors. The fact that depositors sought to avoid negative real interest rates by investing in MMFs speaks less of their desire to arbitrage regulation, and more of regulators' failure to recognise the unintended consequences Regulation Q was having on depositors and the real economy.

European MMFs evolved in the absence of any rule equivalent to Regulation Q. Nevertheless, regulators have warmed to the theme of MMFs as a form of regulatory arbitrage. For example, it has been argued that MMFs: arbitrage bank maturity mismatch rules (e.g. by depositing with banks at term, even though MMF investors can redeem same-day); and arbitrage of bank capital rules (e.g. by investing in asset-backed conduits which are not subject to bank prudential regulation). We note that the liquidity rules in Basel III address the first concern, and assume the FSB recommendations on asset-backed conduits will address the second.

Therefore, we are unaware of any sustainable argument that MMFs arbitrage bank regulation.

[20] "Three Years Later: Unfinished Business in Financial Reform", Paul Volker, 2011, www.group30.org

Conclusion

Mr Volker has develped an analysis of shadow banking and MMFs based on a metaphor; that MMFs are 'bank like'. A metaphor is an inadequate foundation on which to construct regulation. What's more, this particular metaphor is unsustainable given the profound differences between banks and MMFs.

This is not to say that MMFs do not require regulatory reform: simply that 'shadow banking' is
a flawed framework to identify reform. We recommend a more traditional approach: to identify reform on the basis of the *actual* economic function, risks and benefits of MMFs. Happily, that appears to be the approach adopted by IOSCO.

APPENDIX B

The pricing mechanism of CNAV and VNAV funds

In most respects, constant net asset value (CNAV) and variable net asset value (VNAV) money market funds (MMFs) are indistinguishable. Both are collective investment schemes, whose objective is to provide investors with security of capital and high levels of liquidity, and which seek to achieve that objective by managing a portfolio of high quality, low duration money market instruments. There is no guarantee they will achieve that objective, and so investors in either fund face a number of risks, including the risk of loss due to default in a fund's portfolio.

However, there are differences in the way those funds price their shares and value their portfolio, which has given rise to a convention of distinguishing 'CNAV' funds from 'VNAV' funds. Those differences comprise:

- Differences in share price rounding;
- Differences in the use of amortised accounting; and
- The impact of accumulating and distributing shares.

Differences in share price rounding

Like any other investment fund, the share price of a MMF is calculated by dividing its net asset value by the number of shares in issue: therefore increases or decreases in the net asset value of the fund, will cause increases or decreases in its share price. The precise relationship between the net asset value and the share price of a fund is determined by the degrees of significance to which its shares are priced. This is best illustrated by way of example.

Assume at T1 a newly formed MMF issues 100m shares upon receipt of an initial subscription of EUR100m, and invests the subscription in a diversified portfolio of short term, high quality money market instruments. Assume the NAV of the fund changes over time as shown below. Assume the fund receives no further subscriptions or redemptions during that period, and ignore income and expenses. Then depending on whether the fund prices its shares to six, four or two decimal places, and assuming they round to the nearest number, then they would increase/decrease as follows:

	NAV (Eur) Price per Share calculated to	6dps	4dps	2dps
T1	100,000,000	1.000000	1.000	1.00
T2	99,999,990	1.000000	1.000	1.00
T3	99,999,950	.999999	1.000	1.00
T4	99,995,000	.999995	.9999	1.00
T5	99,500,000	.995000	.9950	0.99

CNAV funds price their shares to two decimal places – a practice know as 'penny rounding'. As can be seen from the above example, penny rounded shares are sensitive to movements in the funds' NAV of 0.5% (or 50bps). Because it is rare

for the NAV of a MMF to move by as much as 50bps, the share price of a CNAV fund tends to remain constant, hence the description of the fund as tending to have a 'constant' NAV. CNAV funds that fail to maintain a constant price are described as having 'broken the buck', as occurs at T5.

VNAV funds price their shares to more than two decimal places, and for that reason are more sensitive to movements in the funds' NAV. As can be seen from the above example, each additional decimal place causes a ten-fold increase in the sensitivity of the share price to changes in the NAV. This increased sensitivity means that the share price of a VNAV fund tends, other things being constant, to be more variable.

In the case of both CNAV and VNAV funds, the tendency of their shares to be constant or variable depends on movements in the NAV.

Differences in the use of amortised accounting

Like any other investment fund, the NAV of a MMF is calculated on the basis of the mark-to-market value of its portfolio, which comprises high quality, short dated money market instruments. As money market instruments edge toward maturity, there is little-to-no profit to be made from trading them, and they are largely held to maturity. Consequently, whereas equity and fixed income markets provide a wealth of mark-to-market prices, money markets do not. The lack of market prices is more pronounced in Sterling markets than Euro markets, and in Euro markets than US Dollar markets.

In the absence of regular and reliable mark-to-market prices, MMFs make use of 'amortised accounting' to estimate market prices. Amortised accounting assumes that money market instruments will mature at par, and any difference between their acquisition cost and par value should be realised on a straight-line basis between acquisition and maturity.

Amortised accounting generally produces a reasonable estimate of market price, except in two circumstances:

First, sudden movements in interest rates can cause changes in the market price of money market instruments. MMFs manage interest rate risk by limiting the weighted average maturity (WAM, calculated as the weighted average interest rate reset period) of their portfolio and/or by using interest rate swaps to neutralise the impact of movements in interest rates on the market price of their portfolio. In addition, some VNAV funds use interest rate swaps to mitigate the impact of movements in interest rates.

Second, changes in the credit quality – or the perceived credit quality - of issuers can result in changes in the market price of instruments they have issued. MMFs manage credit risk by employing credit analysts to distinguish relatively strong from relatively weak issuers. In addition, MMFs limit the weighted average life (WAL, calculated as the weighted average legal maturity) of their portfolio, and the final legal maturity of each instrument. By limiting their portfolio to instruments with a very short legal maturity, it is more likely that MMFs' holdings will mature at par – unlike investors who have longer-dated holdings, and are more fully exposed to credit risk.

Notwithstanding their best efforts to manage interest rate and credit risk, there remains a risk that amortised price may not be an accurate estimate of market price. Therefore, the use of amortised accounting is conditional. For example, CESR's Guidelines Concerning Eligible Assets for Investment by UCITS says:

With respect to the criterion "value which can be accurately determined at any time", if the UCITS considers that an amortization method can be used to assess the value of a MMI [Money Market instrument], it must ensure that this will not result in a material discrepancy between the value of the MMI and the value calculated according to the amortization method. The following UCITS/MMI will usually comply with the latter principles:

- *MMI with a residual maturity of less than three months and with no specific sensitivity to market parameters, including credit risk; or*
- *UCITS investing solely in high-quality instruments with as a general rule a maturity or residual maturity of at most 397 days or regular yield adjustments in line with the maturities mentioned before and with a weighted average maturity of 60 days. The requirement that*
  the instruments be high-quality instruments should be adequately monitored, taking into
  account both the credit risk and the final maturity of the instrument.

These principles along with adequate procedures defined by the UCITS should avoid the situation where discrepancies between the value of the MMI as defined at Level 2 and the value calculated according to the amortization method would become material, whether at the individual MMI or at the UCITS level. These procedures might include updating the credit spread of the issuer or selling the MMI.

The first bullet in CESR's Guidelines accommodates the pricing practices of French VNAV funds, which apply amortised accounting to instruments with less than three months residual maturity. If the fund manager has any concerns about the credit quality of an issuer of an instrument with less than three months residual maturity, then some other estimate of its market price should be used.

The second bullet accommodates the pricing practices of CNAV funds, which apply amortised accounting to instruments with less than 397 days residual maturity, subject to ensuring this does not result in a 'material discrepancy'. In practice, a material discrepancy is assessed by comparing the amortised price of the portfolio with an alternative estimate of its market price. That alternative estimate comprises actual market prices where they are available, and model prices where they are not - for example, prices modelled off of an issuer's interest rate curve. That alternative estimate of the market price is called the 'shadow price'. If the shadow price differs by more than 0.5% (or
50bps) from the amortised price, then the CNAV fund abandons amortised pricing in favour of the shadow price. This is consistent with pricing its shares to two decimal places, as described above.

Research by the Investment Company Institute1 shows that the average shadow price of CNAV funds between 2000-2010 was well within the 0.5% (50bps) limit

for using amortised accounting – even during the darkest days of September 2008. That average shadow price of US prime MMFs during that period was 0.999977 (i.e. an average variation from the CNAV of 0.23bps); the highest average shadow price was 1.0020 (i.e. +20bps variation from the CNAV); and the lowest average shadow price was 0.999980 (i.e. -20bps variation from the CNAV).

Therefore, CNAV and VNAV funds both make use of amortised accounting to calculate their NAV, due to the lack of market prices at the very short end of the yield curve. The use of amortised accounting is subject to certain reasonableness checks, including the calculation of a shadow price in the case of CNAV funds. However, and due to the lack of market prices, the shadow price is partly made up of model prices.

The impact of accumulating and distributing shares

Like any other investment fund, MMFs can offer either accumulating or distributing shares. Distributing shares in MMFs make daily declarations of net income (and, usually, make monthly distributions) whereas accumulating shares retain net income within the fund, which manifests as an increase in its NAV and therefore in its share price.

Investors' preference for distributing or accumulating shares is driven by a combination of taxation issues (i.e. whether investors have a tax-driven preference for income or for capital gains, and whether funds are required to distribute income for tax anti-avoidance purposes) and operational issues (i.e. whether investors find it convenient/inconvenient to process the receipt of income). EU- domiciled2 CNAV and VNAV funds may offer both distributing and accumulating shares.

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[1] "Pricing of U.S. Money Market Funds", ICI, January 2011, www.ici.org. The ICI collected weekly data on shadow prices from a sample of 53 taxable money market funds. In April 2010, those funds accounted for 11 percent of the number and 27 percent of the assets of all taxable money market funds, about the same percentages as in August 2008.

[2] US-domiciled MMFs only offer distributing shares, due to taxation issues.

The accumulation of income impacts the constancy or variability of a MMF's share price.

In the case of a CNAV fund, assume it offers both distributing and accumulating shares, and has 100m shares in issue. Assume that the annualised yield of the fund is 2%, which results in net income of EUR5,000 per day. Assume that the NAV of the fund (gross of income) changes between T1 and T5 as shown below, i.e. since the NAV never changes by as much as 0.5% (50bps), the share price of the CNAV fund is based on amortised pricing throughout. Then the price of the shares will be:

	NAV	CNAV fund price per share…		VNAV fund price per share…	
		Distributing	Accumulating	Distributing	Accumulating
T1	100,000,000	1.00	1.000050	1.000000	1.000050
T2	99,999,000	1.00	1.000100	0.999990	1.000090
T3	99,950,000	1.00	1.000150	0.999500	0.999650
T4	99,940,000	1.00	1.000200	0.999400	0.999600
T5	99,980,000	1.00	1.000250	0.999800	1.000050

The first point to note, is that accumulating shares in a CNAV fund do not maintain a constant price – rather, the price increases each day by virtue of the daily accumulation of income. Of course, investors do not 'read' such volatility in the share price as indicative that the fund has failed to maintain its objective of providing security of capital. That is because the volatility is always positive, since it is caused by the mere accumulation of income.

The second point to note, is that accumulating shares in a VNAV fund exhibit less 'downside' volatility than distributing shares, because the daily accumulation of income offsets (wholly or partially) reductions in the NAV. For example, at T2, daily mark-to-market losses cause a fall in the price of distributing shares, but, since those losses are wholly offset by the daily accumulation of income, the price of accumulating shares increases. Again, these differences do not impact an investors' ultimate economic experience, and so ought not to impact their reading of constancy or volatility. However, and as described below, when one looks at actual differences in the share prices of CNAV and VNAV funds, the accumulation of income may in practice have a bearing on investor experience.

APPENDIX C

A comparison of MMF ratings methodologies

APPENDIX D

IMMFA guidance on standardised portfolio holdings disclosure

Pursuant to Article 5.3 of IMMFA's Code of Practice, and in order to enable investors to assess the risk of portfolio holdings, the IMMFA Board recommends that IMMFA funds' portfolio holdings reports should record the following data fields for each holding:

Issuer / Counterparty Bloomberg ID	**Issuer / Counterparty name**	**Counterparty Country**	**Parent name**	**Issuer type**	**Instrument type**	**Moody's ST rating**	**S&P ST rating**	**Fitch ST ratiing**	**Moody's LT rating**	**S&P LT rating**	**Fitch LT Rating**	**CCY**	**Par Value**	**Pct. of Total Par**	**Final Maturity Date**
Limited	Free form	Limited	Free form	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Limited	Free form	Limited	Free form
ID		ISO 3166-1 alpha-2 code		GOVERNMENT	DEPOSIT	P-1	A1+	F1+	Aaa	AAA	AAA	ISO CODE (3 CHAR)			
				FINANCIAL	REPO	NR	A1	F1	Aa1	AA+	AA+				
				CORPORATE	TREASURY BILL / NOTE		NR	NR	Aa2	AA	AA				
					FLOATING RATE NOTE				Aa3	AA-	AA-				
					ABCP				A1	A+	A+				
					CERTIFICATE OF DEPOSIT				A2	A	A				
					COMMERCIAL PAPER				A3	A-	A-				
					BOND				NR	NR	NR				