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# Money Market Funds

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Impact Assessment of  
Substantive EP Amendments

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STUDY

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European Parliamentary Research Service

**Ex-Ante Impact Assessment Unit**

March 2015 – PE 545.547



# **Impact Assessment of Substantive EP Amendments**

## **Money Market Funds**

### **EU Public Debt and Retail Constant Net Asset Value Money Market Funds**

**Research paper  
by Europe Economics**

#### **Abstract**

This study was requested by the European Parliament's Committee on Economic and Monetary Affairs (ECON), as part of Parliament's general commitment to improving the quality of EU legislation, and in particular its undertaking to carry out impact assessments of its own substantive amendments when it considers it appropriate and necessary for the legislative process.

The study concludes that the four substantive amendments in question, which are under consideration in the context of the ECON Committee's draft report on the Commission proposal on Money Market Funds (MMFs), would retain the effect of transforming the considerable majority of the Constant Net Asset Value (CNAV) MMF market in Europe. There would be some, but only limited, take-up of the proposed Retail CNAV or EU Public Debt CNAV Money Market Funds. Most of the funds currently invested in Constant Net Asset Value MMFs would move to either Variable Net Asset Value (VNAV) MMFs or short-term bank deposits. To some extent, the features of Constant Net Asset Value MMFs which are attractive to investors would be duplicated in Variable Net Asset Value MMFs, but, equally, the same concerns over systemic risk might also be replicated.



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## List of acronyms

CNAV: Constant Net Asset Value
ESMA: European Securities and Markets Authority
IMMFA: Institutional Money Market Funds Association
MMF: Money Market Fund
MMI: Money Market Instrument
NAV: Net Asset Value
VNAV: Variable Net Asset Value

## Executive Summary

Europe Economics was asked to assess the feasibility and impacts of potential changes contained in a number of substantive amendments to the proposed regulation on Money Market Funds (MMFs) being considered by the Committee on Economic and Monetary Affairs of the European Parliament. The amendments in question would require any constant net asset value (CNAV) MMF to be either a Retail CNAV – only eligible for a limited range of investors such as natural persons, charities and public bodies – or an EU Public Debt CNAV – which would have to hold at least 80 per cent of its investments in instruments based on debt issued by EU Member States. In order to complete that assessment, we conducted a number of interviews with operators of MMFs, issuers of the money market instruments in which they invest (MMIs) and investors in MMFs, and worked with existing research, including the impact assessment accompanying the original Commission proposal.

Around 540 billion euro are invested in CNAV MMFs, with a similar amount invested in variable net asset value (VNAV) MMFs. Investors value the diversity and quality of the instruments which they are able to invest in through MMFs and the ease with which they can use them. Those that use CNAV MMFs value their operational simplicity and flexibility.

Based on our research, we do not believe that there would be a substantial take-up of the Retail CNAV or EU Public Debt CNAV. The retail component in European MMF investment is small and likely to remain so. That means that the funds might struggle to be viable, particularly with greater homogeneity in investor behaviour (e.g. redemptions at similar times, reflecting similar needs for operational funds). The returns to short-term EU Public Debt are low (the returns on existing euro-denominated government funds are negative) and, even in the event that rates are higher, there seems to be little appetite for EU Public Debt only funds. The proposed amendments would therefore retain the effect of the Commission's proposals to largely end the use of constant net asset value in the European MMF industry.

We expect that most of the funds currently invested in European CNAV MMFs would instead be invested in either VNAV MMFs (limited by existing investment policies, tax rules, laws and other restrictions) or bank deposits (limited by the requirements of bank regulation). To some extent, the features that investors value in CNAV MMFs would be replicated in VNAV MMFs. However, that might also mean that any systemic risks associated with CNAV MMFs would also be duplicated in those funds. The transition to the new regulations should itself be regarded as a potentially systemically significant event, as the large relocation of funds could lead to mis-pricing or other errors which act as a source of pressure. Smaller shares of the funds would be invested in CNAVs outside Europe; invested directly in short-term instruments; and invested in bespoke arrangements with banks.

The most likely impacts are therefore similar to those that might result from the Commission proposals: that existing MMF operators have to adjust to managing VNAV MMFs; some corporate issuers see an increase in the cost of short-term debt; and investors may face additional accounting effort in their treasury management operations (this may be severe in some Member States without changes to tax or accounting rules).

## Chapter 1 – Introduction

### I – Background

In September 2013, the Commission presented a proposal for a regulation setting out new rules for money market funds (MMFs) and shadow banking (COM(2013) 615). MMFs domiciled or sold in the European Union would be subject to new requirements in two areas, in particular:

- Liquidity management. With a requirement for 10 per cent of their portfolio to be held in assets that mature within a day and another 20 per cent to be held in assets that mature within a week. There would also be restrictions on the share of an MMF's portfolio which could be accounted for by a single issuer, in order to ensure diversity in that portfolio.
- Stability. CNAV funds in particular would be required to establish a capital buffer, which could be activated in the event that there is a fall in the value of the fund's investment assets.

The Commission proposal was accompanied by an impact assessment, including a number of different options and based on a range of sources including analysis of existing data on the holdings of money market funds and engagement with affected firms and a survey by the CFA Institute.<sup>1</sup>

Neena Gill MEP, Rapporteur on Money Market Funds for the Committee on Economic and Monetary Affairs, has proposed, *inter alia*, four substantive amendments to the Commission proposal:

- Amendment 22 would require every CNAV money market fund to be either an "EU public debt CNAV MMF" or a "Retail CNAV MMF".
- Amendment 23 defines a Retail CNAV MMF as a CNAV money market fund which is only available to retail investors (natural persons, charities, non-profits, public authorities and public foundations).
- Amendment 25 defines an EU public debt CNAV as a fund which, by 2020, invests at least 80 per cent of its assets in EU public debt instruments.
- Amendment 27 defines EU public debt instruments as public debt instruments that are cash, government assets or reverse repos secured with government debt of the Member States.

The full text of these amendments is presented as Annex I. According to our understanding, the intentions of these amendments would be to mean that CNAVs could only be offered:

- either exclusively to retail investors, in which case a capital buffer would not be required; or,
- by investing at least 80 per cent of their assets in EU public debt instruments, with a capital buffer required to cover the remaining 20 per cent of their assets, with some

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<sup>1</sup> European Commission (2013) *Impact Assessment accompanying the proposal for a regulation of the European Parliament and of the Council on Money Market Funds*, Commission Staff Working Document, SWD(2013) 315 final.

form of weighting for risk to be specified by the European Securities and Markets Authority (ESMA).

We shall often hereafter refer to the measures including these four substantive amendments, relative to the status quo prior to the Commission proposals, as the “Amendments under consideration”.

## II – Objectives

Europe Economics was instructed to assess the feasibility and likely impacts of the proposed amendments, relative to the status quo. This while taking as a starting point, and facilitating comparison with, the Commission's Impact Assessment. This would include addressing the following questions:

- The feasibility of both the Retail CNAV and the EU public debt CNAV as described in the amendments.
- The impact of limiting CNAV funds in the Union to only Retail CNAV and EU Public Debt CNAVs, including:
  - the potential costs to Member States, the MMF industry and investors in MMFs, with respect to both large enterprises and SMEs (including adaptation costs, e.g. adapting accounting systems);
  - the impact on systemic risk and the stability of EU financing; and
  - the relative weights of these costs and benefits of limiting CNAV funds.

There were also some specific questions which we were asked to address, related to the Retail CNAV and EU Public Debt CNAV.

### 1. Retail CNAV

- What type of retail investors invest in MMFs at the present time?
- What financial instruments do existing CNAV MMFs invest in?
- What impact would the amendments have on current retail investors?
- What impact would the amendments have on the industry and MMF operators in particular?

### 2. EU public debt CNAV

- What percentage of CNAV funds currently invest in EU public debt?
- What percentage of a CNAV fund's assets is typically made up of EU public debt?
- Which Member States' public debt is eligible for investment by CNAVs at present and what is the selection criteria employed?
- What impact would the amendments have on the industry and MMF operators in particular?

## **III – Approach**

### **1. Overview**

Our method for this study involved three steps:

- Understanding the current state of the market.
- Testing the feasibility of the amendments.
- Developing the potential impacts.

### **2. Understanding the current state of the market**

Our first step was to understand the market as it stands now, in advance of the proposed regulation:

- The operators: the number of funds in operation, the Member States in which they are based, the scale of the assets under management in CNAV funds.
- The issuers: the organisations issuing Money Market Instruments (MMIs) and the scale on which different types of instruments are issued, how those investments differ from those of VNAV funds.
- The investors: the types of investor and the scale of their investment in CNAV funds.

That analysis is based upon a mix of desk research, using official and industry data to assess the MMF and MMI market, and interviews with market participants, to understand features of their activity which are relevant to the impact of the proposed amendments but not included in statistics already collected.

### **3. Testing the feasibility of the amendments**

We will understand feasibility first in terms of whether it is possible and practical to create, invest in and issue instruments for the funds, in other words:

- Is it feasible from a legal or regulatory perspective to create the Retail CNAV and EU Public Debt CNAV funds?
- Is it feasible from a legal or regulatory perspective to invest in the Retail CNAV and EU Public Debt CNAV funds?
- Is it feasible from a legal or regulatory perspective to issue the instruments required for the Retail CNAV and EU Public Debt CNAV funds?

In each of those cases, we then examine whether there is an available alternative which is so clearly preferable that there would be no material participation in these CNAV funds, either by operators or investors.

That analysis is based upon desk research examining the likely functioning of the rules, and how they have been adapted elsewhere, and interviews with a range of market participants –

operators, issuers and investors – in order to identify and understand potential concerns over the feasibility of the measures.

#### 4. Developing the potential impacts

The first step in understanding the potential impacts is to consider the likely destination for non-retail funds currently invested in CNAV MMFs. It is of course intrinsic to the nature of an ex ante impact assessment that we cannot observe how investors would react if the scope of money fund offerings were to change. However, there are a range of plausible potential alternatives, for which the feasibility of each is explored later, including the EU Public Debt CNAV, a VNAV of some form, wholesale bank deposits and others.

Impacts therefore include:

- the extent to which operators would be affected by a reduction in the scale of activities supporting the operation of CNAV MMFs for non-retail investors and the extent of any likely compensating increase in activity at financial institutions offering substitute products;
- the extent to which different issuers would face either an increased or a reduced ability to borrow short-term funds or an increased or a decreased cost in borrowing required short-term funds; and
- the extent to which different investors would face an increased or decreased difficulty in managing their short-term cash requirements and the extent to which returns might increase or decrease.

We attempt to understand the potentially compensating impact on systemic risk and therefore financial stability, in terms of:

- the likelihood of CNAV failing (“breaking the buck”<sup>2</sup>);
- the likelihood that MMFs will experience a rapid decline in assets under management in a crisis;
- the extent to which issuers would face specific changes in their ability to borrow at a time of crisis; and
- the potential systemic implications, in terms of the impact on sponsors or other financial institutions.

Those mechanisms will be based upon the extent to which patterns of investment in and by CNAV MMFs change. In particular, the extent to which there will be a reduction in the assets under management in CNAV MMFs and the substitutes to which issuers and corporate investors might turn to in place of CNAV MMFs.

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<sup>2</sup> This concept is explained below.

## 5. Interviews

We interviewed a range of market participants, including operators of both CNAV and VNAV MMFs. The market participants we interviewed are listed below. The operators interviewed represent more than half of assets under management in European CNAV MMFs and a substantial part of the VNAV MMF market. All interviews were conducted by telephone using a structured questionnaire, such as the one presented in Annex II.

It is important to note that the organisations interviewed did not see the report in advance of its publication and may not share its conclusions. Any potential impacts envisaged do not constitute a forecast by any market participant or group of market participants.

**Table 1: Interviews**

<i>Organisation name</i>	<i>Type</i>	<i>Member State(s)</i>
Aberdeen Asset Management	Operator	Ireland, Luxembourg
Amundi Asset Management	Operator	France, Luxembourg
BlackRock	Operator	Ireland, Luxembourg, UK
Deutsche Bank	Operator	Luxembourg, Ireland
Gdansk, City of	Investor	Poland
Goldman Sachs	Operator	Ireland
HSBC	Operator	France, Ireland
ING Bank	Issuer	Netherlands
JP Morgan	Operator	Luxembourg
J Sainsbury	Investor	UK
Legal and General	Operator	Ireland
Ministry of Finance, Poland	Issuer	Poland
SAP	Investor	Germany, Ireland
State Street Global Advisors	Operator	Ireland
Universal Life	Investor	Cyprus

## Chapter 2 – Overview of the sector

### Key Findings

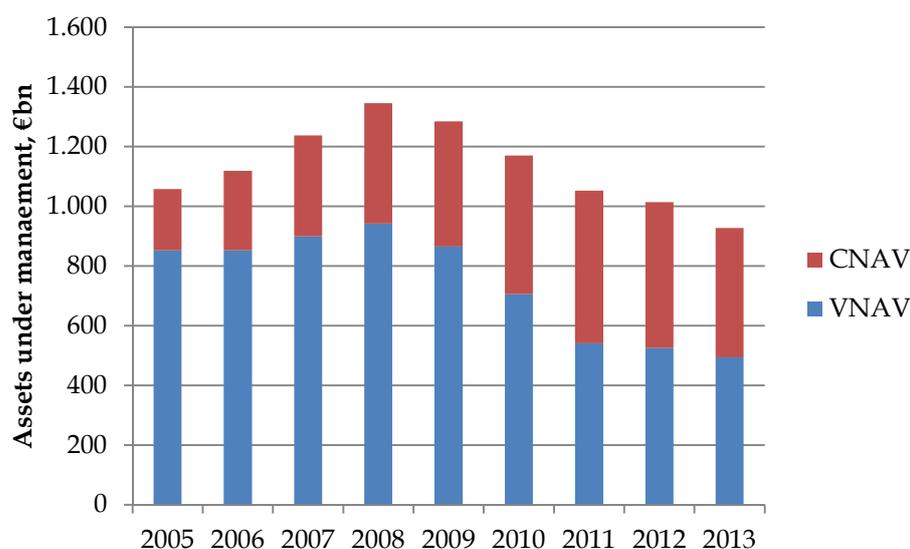
- Around 540 billion euro is invested in the CNAV MMFs which would be regulated under the proposals. There is a similar volume invested in VNAV MMFs.
- Investors value MMFs for the diversity and perceived quality of the instruments they invest in; the ability to access funds on a same-day basis and a degree of protection from any financial problems experienced by the operator.
- Investors value CNAV MMFs, in particular, for their operational simplicity, with respect to their accounting and tax treatment; the availability of intra-day settlement; and their stable net asset value, which further simplifies certain treasury operations.

## I – Money Market Funds

### 1. Funds under management

There has been a steady downward trend in the assets under management in MMFs since 2008, with a total fall in assets under management in excess of 30 per cent over this period. This is attributable to a fall in the value of assets under management of VNAVs of 48 per cent (448 billion euro) over the same period, while the value of assets under management in CNAV MMFs has increased by 7 per cent (29 billion euro).

Figure 1: Funds under management, CNAV vs VNAV



Source: IMMFA.

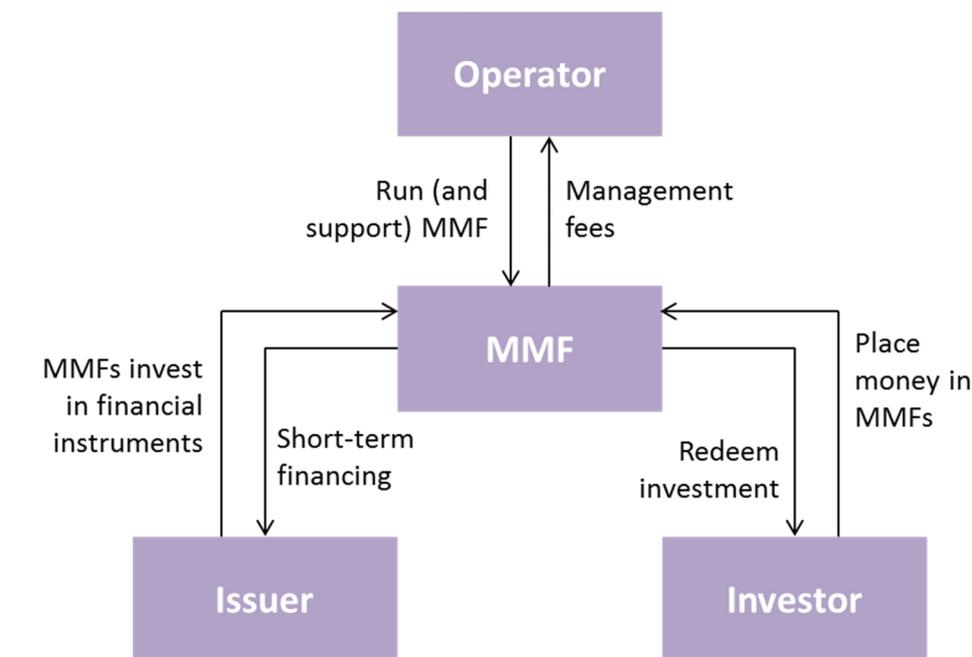
## 2. Key market players

Market players who are considered as part of this feasibility and impact assessment are:

- Operators: firms that run money market funds by collecting money from investors and investing in MMIs. Operators tend to be either large banks or more specialist asset managers. Some operators offer money market funds as a means for outside investors to access the cash management processes that the banks have established for their own operations.
- Investors: these are the businesses or individuals who invest in MMFs. They can be broadly classified as non-retail and retail investors, i.e. those who are deemed to have specialist knowledge of investment and those who do not. The normal definition of retail differs from that in the rapporteur's proposals though, *which includes public sector bodies such as local authorities*.
- Issuers: these are the businesses or public sector bodies who issue the financial instruments in which MMFs invest, MMIs. These include financial and non-financial corporates, as well as public sector bodies which can issue a range of instruments including: commercial paper; government debt; and reverse repos.

Those market participants and the flow of funds between them are summarised in Figure 2.

**Figure 2: MMF market**



Source: Europe Economics.

### 3. Key reasons why investors use MMFs

We set out here the principal benefits offered by MMFs to investors:

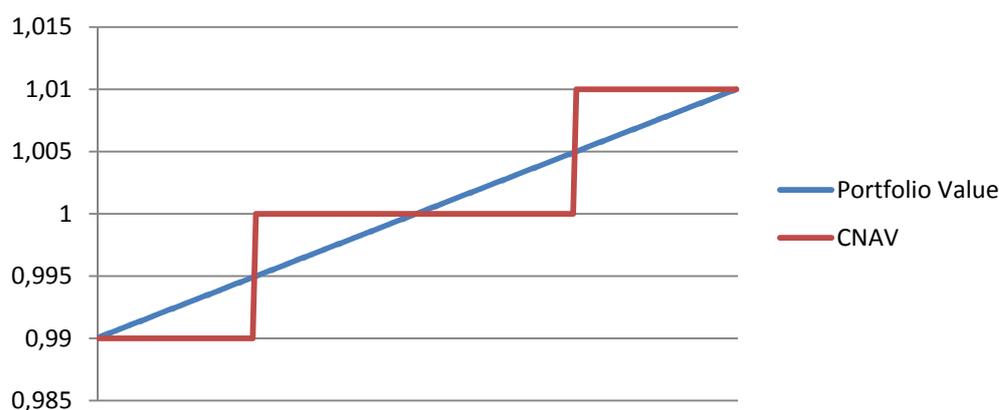
- Provides same day, or next day, liquidity with investors subject to no penalties for redemption.
- Diversification of investment across securities and by issuer, in order to comply with ESMA guidelines which specify diversification to at least six different bonds, with no more than 30 per cent in one security. This avoids over exposure to a single entity, with the impact of default of any one issuer on a given investor reduced. Money held as bank deposits, on the other hand is backed by government deposit guarantee schemes up to a value of 100,000 euro (a value that may change over time), with investors exposed to other assets on the balance sheet of the bank for which they do not know the quality.
- MMF operators monitor the quality of the issuers whom MMFs are invested in, with the help of credit rating agencies. This is supported by ESMA Guidelines which sets out A2/P2/F2 as a minimum credit rating for issuers.<sup>3</sup>
- Assets are held in third party custody accounts which protect investors from exposure to the financial problems of the MMF operator, which is not the case with bank deposits.

### 4. The difference between CNAV and VNAV MMFs

There are two main differences between CNAV and VNAV MMFs:

- CNAVs are priced to two decimal places. This means that the price of the CNAV fund will remain stable at unity for fluctuations of  $\pm 49$  basis points (bps), i.e. between 0.995 and 1.005. VNAVs are priced to four decimal places.

**Figure 3: CNAV price mechanism**



Source: Commission Impact Assessment.

<sup>3</sup> This refers to the short-term ratings issued by each of the leading global credit ratings agencies: Standard & Poor's: A2, Moody's: P2, and Fitch: F2. The highest short-term rating is A1/P1/F1, indicating a "superior" ability to repay short-term debt obligations; A2/P2/F2 indicates a "satisfactory" ability; and A3/P3/F3 indicates adequate ability.

- CNAVs are priced using the amortised cost accounting method. This is the sum of the purchase price of the financial instrument and the cumulative amortisation. In other words, it assumes that the change in value between the purchase price and redemption value is added in equal increments each day. This is in contrast to VNAVs which use mark-to-market pricing, whereby the accounting value for an asset is based on the current market price, i.e. the value of asset fluctuates with changes in market conditions.

## 5. Key reasons why investors use CNAV MMFs as opposed to VNAV MMFs

CNAV MMFs provide three key benefits to investors over VNAV MMFs, namely:

- Stable net asset value – as CNAVs are priced to two decimal places, the price of the CNAV fund stays stable when the underlying portfolio value fluctuates by  $\pm$  49bps. This is valuable to investors who are averse to short-term variation in capital value and simplifies treasury operations such as cash sweeping.<sup>4</sup>
- Tax accounting treatment – CNAVs have a stable net asset value and are treated (by all major global auditors) as cash, or cash-equivalent, on corporate balance sheets. This exempts CNAV funds from the capital gains tax obligation. VNAVs, on the other hand, which are quoted to four decimal places, experience profit and loss intraday and, therefore, accounting departments of investors could be obliged to track these profits and losses and calculate their tax obligation, necessitating considerable additional tax and accounting effort.
- Intraday settlement – CNAVs can settle intraday; in other words they have a settlement period of 'T+0'. This is because the amortised cost accounting method which CNAVs are based on gives short-term predictability to the fund value, as prices change in equal increments on the way to redemption. While some VNAVs do offer same day settlement, that process grows steadily more difficult with more frequent mark-to-market pricing, particularly on short-dated securities close to maturity, and with rounding to a greater number of decimal places (three instead of two, or four instead of three).<sup>5</sup>

In its code of practice, IMMFA also sets an additional credit quality threshold for CNAV MMFs which requires issuers to have a minimum credit rating of A1/P1/F1 by at least one agency,<sup>6</sup> in addition to the ESMA requirement for A2/P2/F2 ratings required for all MMFs.

For some investors, investment in CNAV MMFs does not represent a preference but rather an obligation. Around 44 per cent of respondents to a survey of investors indicated that they have an existing investment policy, law or other restriction that prohibits them from investing short-term cash in a VNAV, accounting for 16 per cent of their total European domiciled short-term investments.<sup>7</sup> Such arrangements should be seen as a significant barrier to the flow of investment from CNAV to VNAV funds, as it would require an extremely onerous governance exercise, or regulatory changes, to alter where funds can be invested.

<sup>4</sup> Cash sweeping is the use of surplus cash to pay down outstanding debt, rather than paying it to investors.

<sup>5</sup> Tatnell, M. (2013) *A passing of the buck?* Market Edge, Aviva Investors.

<sup>6</sup> IMMFA (2012) Code of Practice. Available here: <http://www.immfa.org/assets/files/IMMFA-Code-of-Practice-26th-November-2012.pdf>.

<sup>7</sup> Treasury Strategies (2013) European Money Market Survey on Regulation: Summary Results & Analysis, p. 20.

## 6. CNAV MMF Types

There are 70 CNAV MMFs in the EU with a total value of assets under management of over 500 billion euro. 58 of these funds are termed prime funds and invest in both public and non-public debt instruments. The remaining 14 are government funds which invest exclusively in government debt and reverse repos secured with government debt. The following table provides a more granular breakdown of the types of fund by the number of each type, the value of assets under management and the average yields and returns.

**Table 2: CNAV MMF breakdown, 2015**

<i>Type of CNAV</i>	<i>No. of Funds</i>	<i>AuM (€m)</i>	<i>7 day simple yield* (%) Net</i>	<i>1-Year Net Return (30/11/2014)</i>
USD Prime MMF	21	192,013.6	0.05	0.04
Euro Prime MMF	17	88,347.3	0.00	0.07
Sterling Prime MMF	20	193,542.4	0.39	0.36
USD Gov. MMF	8	61,227.4	0.01	0.01
Euro Gov. MMF	2	654.0	-0.04	0.00
Sterling Gov. MMF	4	4,157.3	0.24	0.20
Total	70	539,941.9	-	-

Source: i-MoneyNet. Yields are annualized using 365 days. Data as of 16/01/2015.

Euro Government MMFs constitute under 700 million euro of assets under management, which equates to 0.12 per cent of the overall CNAV MMF market. Sterling government MMFs constitute a further around 0.77 per cent of the CNAV MMF market, which means that EU currency-denominated government MMFs are less than 1 per cent of the total CNAV market and comprise six individual funds. This provides an approximation of the proportion of the CNAV market which is invested in EU public debt. In reality, it may be fractionally higher as European public sector entities could issue dollar denominated bonds, although this is not common in practice.

EU-currency denominated Prime CNAV MMFs, on other hand, constitute 52.2 per cent of the total CNAV market. Prime funds are invested in both public and private sector issuance. However, one money market operator said that their prime funds held on average 20 to 40 per cent public debt.

In terms of yield, Government CNAV MMFs have a lower yield than the Prime MMFs that are denominated in the same currency. The euro-denominated government CNAV MMFs have a negative yield, while sterling-denominated CNAV MMFs, both prime and government, have the highest yield.

### 7. Where are CNAV MMFs domiciled?

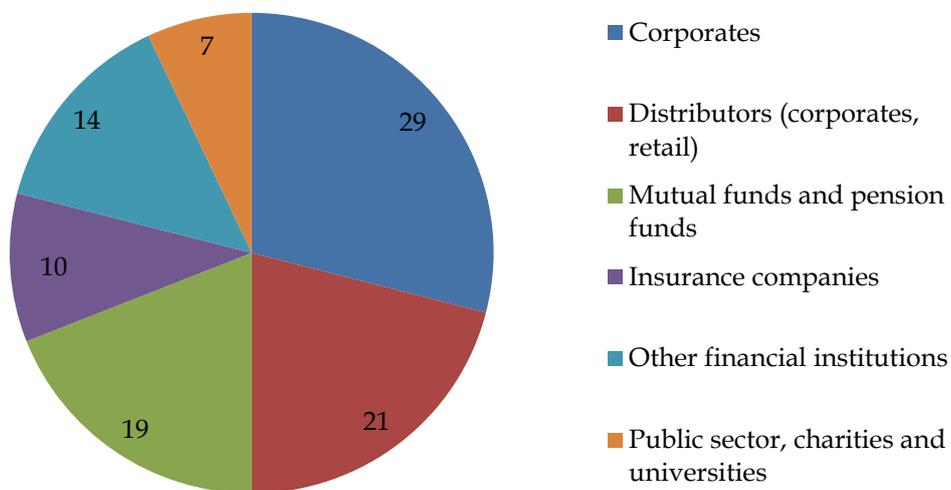
The three principal Member States in which MMFs, broadly defined, are domiciled are France, Ireland and Luxembourg. However, CNAV MMFs are banned from being domiciled in France. The majority of CNAV MMFs are therefore domiciled in Ireland and Luxembourg.

### 8. Who invests in CNAV MMFs?

Around 29 per cent of funds under management are accounted for directly by corporate investors. Some corporates also invest through distributors, accounted for separately. Mutual and pension funds account for around 20 per cent of the market and insurance companies a further 10 per cent.

Direct retail investors (public sector bodies, charities and universities) constitute only 7 per cent of the market. Other retail investors will use distributors but our understanding is that distributors predominantly invest on behalf of corporate investors and hence the total share of the market is not likely to be much larger than the direct retail share.

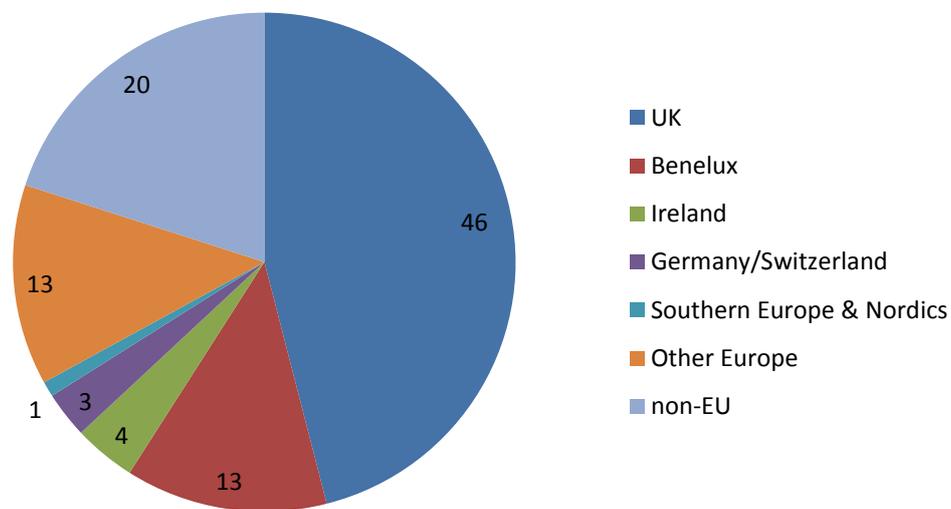
**Figure 4: CNAV MMF investors by type, percentage of funds under management**



Source: IMMFA.

Almost half of all investors are UK-based, reflecting the significance of the City of London as an international financial centre, with a further 13 per cent of the market in the Benelux countries. 20 per cent of investors in EU CNAV MMFs are from outside the EU.

**Figure 5: CNAV MMFs by investor location, percentage of funds under management**



Source: IMMFA.

## 9. What instruments are CNAV MMFs invested in?

As Government CNAV MMFs, for all currency denominations, are invested exclusively in public sector debt and reverse repos secured against public sector debt, the focus of this section is on understanding the issuer base for Prime CNAV MMFs.

Tables 3, 4 and 5 below show the allocation of Prime CNAV MMFs for each of the three key currency denominations and in relation to three key categories of issuer, namely: banks, sovereigns and corporates. The majority of Prime CNAV MMF funds are invested in financial instruments issued by banks. Corporates and sovereigns tend to represent a very low percentage of the investments, with many Prime CNAV MMFs not investing in sovereign debt instruments at all. The only Member State with substantial sovereign debt investment from CNAV Prime MMFs is France.

**Table 3: Issuer base for Euro Prime CNAV MMFs, percentage of total funds under management**

	<i>Total allocation</i>	<i>Banks</i>	<i>Sovereigns</i>	<i>Corporates</i>
France	34	28.4	4.6	1
Germany	15.5	14	0.7	0.7
UK	10.2	10.2	0	0
Netherlands	9.8	9.1	0.6	0.2
Sweden	6.6	6.6	0	0
Japan	6.1	5.9	0	0.2
US	5.7	2.7	0	3
Other	12			
Total	100			

Source: Crane Data's Money Fund Intelligence XLS, October 2013.

**Table 4: Issuer base for Sterling Prime CNAV MMFs, percentage of funds under management**

	<i>Total allocation</i>	<i>Banks</i>	<i>Sovereigns</i>	<i>Corporates</i>
France	15.5	14	1.5	0
Germany	12.1	11.6	0	0.5
UK	15.7	15.1	0.4	0.2
Netherlands	10.6	10.6	0	0
Sweden	8.7	8.7	0	0
Japan	9.1	8.1	0	1
US	6.5	5.5	0	0.7
Other	21.8			
Total	100			

Source: Crane Data's Money Fund Intelligence XLS, October 2013.

**Table 5: Issuer base for Dollar Prime CNAV MMFs, percentage of funds under management**

	<i>Total allocation</i>	<i>Banks</i>	<i>Sovereigns</i>	<i>Corporates</i>
France	17	16.1	0.8	0.1
Germany	7.8	7.7	0	0.1
UK	7.3	7.2	0	0.1
Netherlands	5.1	5.1	0	0
Sweden	9.8	9.8	0	0
Japan	10.7	10.2	0	0.5
US	15.2	7.4	5.7	2.1
Other	27.1			
Total	100			

Source: Crane Data's Money Fund Intelligence XLS, October 2013.

## Chapter 3 – Feasibility of the amendments

### Key Findings

- We do not believe that there would be a substantial Retail CNAV sector, though some may exist.
- We do not believe that there would be a substantial EU Public Debt CNAV sector, though again some may exist.
- We believe that the proposed amendments would retain the intention of the Commission proposal that the vast majority of those funds which at present would be invested in CNAV MMFs should instead be invested in VNAV MMFs or other investments.

A central question of this study is whether there would be any demand for, or supply of, EU public debt CNAVs or Retail CNAVs. The answer – universal in the responses of those interviewed and clear from the broader analysis – is that, relative to today, there would be very little. The Amendments under consideration should be interpreted as regulating for the effective abolition of most of the CNAV sector in Europe – especially in respect of euro-denominated funds.

We note that the intention of the European Commission’s proposal is to “Require [money market funds] to float their NAV, except when they can demonstrate a sufficient capital buffer”<sup>8</sup> and that this is clearly treated as a compromise proposal versus that of “require all MMFs to value their assets marked to market”.<sup>9</sup> Hence the effective abolition of the CNAV sector (aside from a small set of exceptions which we shall explain below) can be understood as the intention of the Commission’s proposal, not an undesired side-effect. As we shall explain, the Amendments under consideration would retain this effect.<sup>10</sup>

<sup>8</sup> Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds, Policy Option 2.8, section 5.2.8.

<sup>9</sup> Op. cit. Policy Option 2.3, section 5.2.3.

<sup>10</sup> There is an argument that this is particularly desirable in those market conditions prevailing at the time of writing. Indeed, Chodorow-Reich (2014) finds that “a low interest rate does pose challenges to money market funds”, and that “the interaction of low nominal interest rates and administrative costs forced money market funds to waive fees, producing a possible incentive to reach for yield to reduce waivers”. – See Chodorow-Reich, G. (2014) ‘Effects of Unconventional Monetary Policy on Financial Institutions’. *Brookings Papers on Economic Activity* (Spring), pp. 155-204. “Reaching for yield” is the propensity to buy riskier assets for the purpose of achieving higher yields.

## I –EU public debt CNAV

There are two reasons why it appears very unlikely that there would be any material offering of EU public debt CNAV:

- Capital buffer.
- Loss of economies of scale.

### 1. Capital buffer

The universal message across all players is that a requirement to hold a capital buffer would make an EU public debt CNAV infeasible, regardless of its scale. The reason stakeholders give is that they claim the presence of an obligation upon sponsors to set up and maintain a capital buffer for funds would, under prudential regulations applicable to banks and insurers, mean those entities would have to consolidate the broader balance sheets with the money market fund, implying a regulatory capital cost that would render it infeasible to offer a money market fund. The Commission Impact Assessment set out the expected cost of the capital buffer in the event that it was applied to the entire value of the fund, at 9 to 30 basis points.

**Table 6: Capital buffer costs, whole fund**

	<i>Cost of capital range</i>	<i>Capital buffer</i>	<i>Percentage of assets</i>	<i>Cost</i>
Low	3.00%	3.00%	100.00%	0.09%
High	10.00%	3.00%	100.00%	0.30%

Source: Commission Impact Assessment and Europe Economics calculations.

Interview participants also expressed a concern that the buffer would send a signal about the nature of the product with which they were uncomfortable. It might imply it was guaranteed rather than being an investment product subject to potential loss.

Money market fund investors might have to accept very poor terms in order to justify operators bearing these disadvantages, if they want to be able to invest their funds in capital-buffered CNAVs. There will normally be more attractive potential investments.

Even if a way were found around the need for the consolidation of capital-buffered CNAVs onto broader balance sheets, the provision of a capital buffer would itself entail a capital cost for the CNAV fund that would imply a material loss of return for investors in an environment where yields are already low to negative, and hence a need to charge investors for participating in the fund to such a degree that investors would not be willing to invest in such a fund. In that case, the size of that capital buffer and the resulting cost might be moderated by its only needing to be held against the portion of the CNAV not invested in EU public debt instruments, to 2 to 6 basis points. In Table 7 we scale the estimates of the cost of the capital buffer to the maximum 20 per cent of the fund value that can be invested in instruments other than EU public debt instruments in the Amendments under consideration.

**Table 7: Capital buffer costs, non-public debt assets**

	<i>Cost of capital range</i>	<i>Capital buffer</i>	<i>Percentage of assets</i>	<i>Cost</i>
Low	3.00%	3.00%	20.00%	0.02%
High	10.00%	3.00%	20.00%	0.06%

Source: Commission Impact Assessment and Europe Economics calculations.

As noted in Table 2, the yield on euro-denominated government funds is currently negative. Some investors are willing to accept negative interest rates, both in this market (existing euro-denominated government funds) and in other financial markets. However both the number of funds able to operate in those circumstances and the scale of the funds under management in those funds is very low. While some interview participants said that yields were not a central consideration in their money market investment decisions, they did not extend that to being willing to accept negative returns, as that meant the capital preservation feature of the funds was lost. Interview participants also did not express a sense that they would be willing to accept a reduction in yields in return for any perceived improvement in security associated with a capital buffer, particularly in the event that yields were negative.

In the event that returns to euro-denominated government CNAV MMFs improved, then the specific objection to negative yields might become less salient. However the spread between the yields on the debt of the more secure sovereigns and short-term corporate paper can be expected to remain significant. Given the reluctance of operators to offer a fund with a capital buffer, we would still anticipate these funds being small in scale if they existed at all in a CNAV form. At the same time, the appeal of the security of the higher rated government debt might not be as attractive in normal market conditions. We can see this in the disposition of CNAV MMFs before the crisis: no euro or sterling-denominated government CNAV MMFs were in operation – at least on the i-MoneyNet data available to us – in January 2006. There is therefore little evidence that appetite for a CNAV MMF that invests solely in EU public debt is likely to rise if market conditions become more like those before the economic crisis.

**Table 8: CNAV MMF breakdown - 2006**

Type of CNAV		No. of Funds	AuM (€m)	7 day simple yield* (%) Net	1-Year Net Return (11/30/2014)
USD	Prime MMF	26	86,594.8	4.18	3.08
Euro	Prime MMF	24	37,359.1	2.22	2
Sterling	Prime MMF	22	75,228.6	4.36	4.63
USD	Gov. MMF	3	5,398.3	4.22	2.98
Euro	Gov. MMF	0	0		
Sterling	Gov. MMF	0	0		
<b>Total</b>		75	204,580.71	-	-

Source: i-MoneyNet. Yields are annualized using 365 days. Data as of January 2006.

## 2. Loss of economies of scale

Less than 9 per cent of funds and less than 1 per cent of funds under management are accounted for by euro- or sterling-denominated government funds. There is the possibility that a small portion of the EU public debt in prime funds could be consolidated into EU public debt funds, but the aggregate proportions can be expected to remain low.

EU public debt in a prime fund is by no means the same sort of investment as EU public debt in an EU public debt fund. EU public debt in a prime fund can provide diversity and security as part of a broader mix of investments, with commercial assets providing the bulk of the overall yield, whereas if those prime assets are limited to 20 per cent of the fund's value (and with the cost of a capital buffer reducing their attractiveness) then the yield of the fund will be dominated by the yield on the public debt.

Some CNAV investors that currently invest in prime assets might prefer the second-best alternative of an EU public debt CNAV (with capital buffer charges) to no CNAV at all. The scope for expansion over the medium term is likely to be constrained by a combination of wider market conditions, by eurozone quantitative easing (QE) bearing down on EU sovereign debt yields and by sheer scale. EU public debt funds could, *ceteris paribus*, expand. But they could by no means expand so as to absorb all or even a large portion of the current CNAV market. They might not even expand to match current prime CNAV demand for government debt. The fixed costs of setting up the management and accounting systems that maintain funds would not, in most cases, justify operators continuing to provide CNAV funds for such a small portion of the market.

Again this could change if there were a rise in the returns on euro-denominated government debt at some point in the future. However these assets are likely to remain low-yielding compared to other options and, particularly in the event that the low yields on such instruments are compounded by the costs of a capital buffer on any corporate instruments, we would expect the market to remain small and likely too small to justify existing operators continuing to offer CNAVs or new operators offering them on anything like the scale they are on offer today.

### 3. Exceptions

In our view it is not inconceivable that a few specialist players could emerge that would service that small number of investors with very high appetites for CNAV, and hence a very high willingness to pay fees. There may be some investors with a sufficiently strong preference to invest in CNAV that it might be profitable even despite the capital buffer costs and the low to negative yields on EU public debt (the kind of scenario for which the Commission's preference of Option 2.8 over Option 2.3 catered).<sup>11</sup>

Furthermore, there would be some (non-trivial) scope for expansion, partly as EU sovereign debt in prime CNAV funds found a new home as discussed above.

## II – Retail CNAV

Interviews conducted for this project suggest that, at present, only around 7 per cent of assets under management come from investors that would be classified as “retail” (and, on some estimates, less than this). That is in stark contrast to the much larger “retail” segment of the US money market funds industry, where retail funds constitute around one third of all funds (perhaps connected to the fact that, in the US, money market funds often offer chequing or card payment services not typically available in Europe).

There are two reasons why it appears very unlikely that there would be any material offering of Retail CNAV:

- Loss of economies of scale.
- Increase in the homogeneity of investor behaviour.

However, again we expect that some retail CNAVs might exist, though likely offered by a different set of institutions to those presently offering CNAV MMFs.

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<sup>11</sup> Option 2.8 would require MMFs to float their NAV, except when a sufficient capital buffer is in place, while Option 2.3 would require MMFs to have a fluctuating NAV in all cases. Op. cit. Policy Option 2.3, section 5.2.8.

## 1. Loss of economies of scale

Responses to our interview programme have generally stated that, while it would be technically feasible to do so, it would be commercially unattractive to provide funds catering specifically to such a small segment of the market. The fixed costs of fund provision and the challenges and regulatory risks of interacting with retail customers would be too high, given the low yields available in the current and foreseeable market environment and the modest willingness to pay fees.<sup>12</sup> Indeed, Di Maggio and Kacperczyk (2014) found that a “reduction in the interest rate... coincides with greater likelihood of funds exiting the market and the reduction in expenses funds charged to investors”.<sup>13</sup>

## 2. Increase in the homogeneity of investor behaviour

There may also be changes in the redemption profile for retail-only funds which would make them more difficult to manage.

The first point to note is that the component of these funds accounted for by natural persons would still be small. Interview participants suggest that most of the retail investment would come from the institutions included in the definition of retail in the Amendments under consideration. The behaviour of those institutions – facing similar organisational and external pressures – may be correlated to such a degree that funds in which they are the sole investors are unable to handle redemptions even outside times of financial stress.

While the likelihood of systematic redemptions in the event of a crisis, to cover losses elsewhere, might still be less than for financial investors in particular, institutions such as charities and local authorities might have more homogeneous behaviour in other circumstances. At certain points in the month, when cash is needed for operational purposes, there might be large spikes in redemptions which it could be difficult or costly – in terms of yield – to manage.

This increase in risk could further decrease the attractiveness of these funds and therefore cause a further loss in economies of scale.

## 3. Exceptions

While the current set of operators may not find the market attractive, even at only 7 per cent or less of CNAV assets under management, retail investors would still constitute approximately 25 billion euro. We understand that funds of below around 1 billion euro can become too small to be viable – at least for providers that are large enough in general to have sufficient economies of scale. That suggests that there could be some scope for a small number of providers of relatively small retail funds. Furthermore, it appears that certain investors that would qualify as retail would (at least in the short-term) find it very difficult to re-define investment mandates so as to widen their options – e.g. perhaps local authorities and certain charities. We understand that the process of re-defining such mandates might take of the order of 18-24 months.

Our view is therefore that, although there may be some modest provision and take-up of Retail CNAVs for a transitional period, it is not sufficiently material to overturn our broader conclusions.

<sup>12</sup> While yields might increase in the future, it is likely that other options available to retail investors would, in that case, also rise and continue to be more attractive.

<sup>13</sup> Di Maggio, M. and Kacperczyk, M. (2014) ‘The Unintended Consequences of the Zero Lower Bound Policy’. *Working Paper*.

## Chapter 4 – Impact of the amendments

### Key Findings

- Most of the funds invested in CNAV MMFs at present would transfer to VNAV funds or to bank deposits. Smaller amounts would be invested in other ways.
- VNAVs would replicate the features of CNAV MMFs to a considerable degree, with an accommodating tax and regulatory environment.
- There could be a reduction in systemic risk emanating from MMFs, offset to at least some degree by an increase in systemic risk elsewhere.

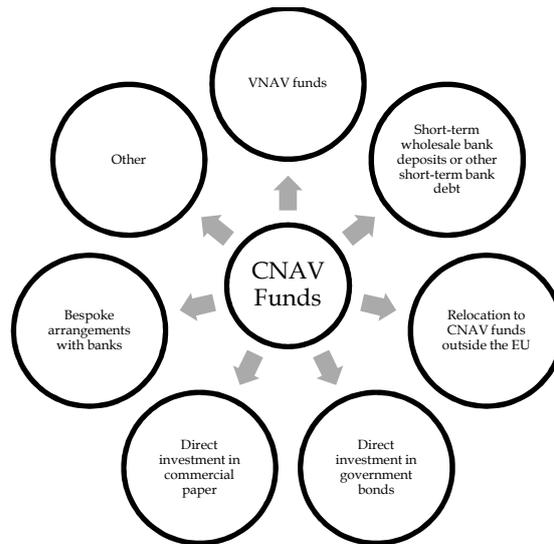
The impact of the Amendments under consideration can be thought of as broadly similar to the impact of the original Commission proposal, in that we do not expect the Retail CNAV and EU Public Debt CNAV options to exist on a significant scale.

Relative to the status quo we would expect the principal impacts to be a loss of the operational convenience offered by CNAVs balanced by a reduction in the potential, envisaged by the Commission, for them to be a source of systemic risk. We expect that the reduction in operational risk would be less than many market participants expect, as VNAV funds could replicate many of the features currently offered by CNAVs with wider changes in the tax and regulatory environment. However, to the extent that this happens, it may also mean replicating the source of the systemic risk which motivates regulation in this area.

### I –Expected investment behaviour

The Amendments under consideration would have the impact of removing the possibility of CNAV investment for around 540 billion euro of funds currently invested in EU CNAVs. There are a number of potential destinations for those funds.

**Figure 6: Alternative options for CNAV investors**

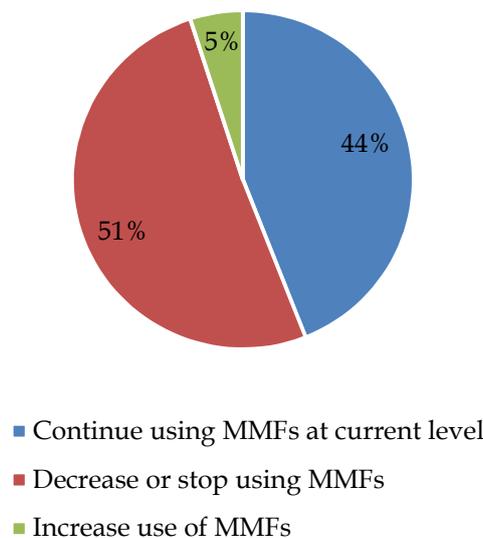


Source: Europe Economics.

There is some evidence from both interviews conducted with operators for this study and interviews conducted with investors by Treasury Strategies (2013) (confirmed in interviews for this project) on the likely disposition of CNAV funds.

In response to the Treasury Strategies, 51 per cent of investors reported that they would decrease their use of MMFs or stop using MMFs altogether. This seems compatible with the findings from Europe Economics interviews with operators, which found an average expected reduction in MMF investment of 36 per cent.

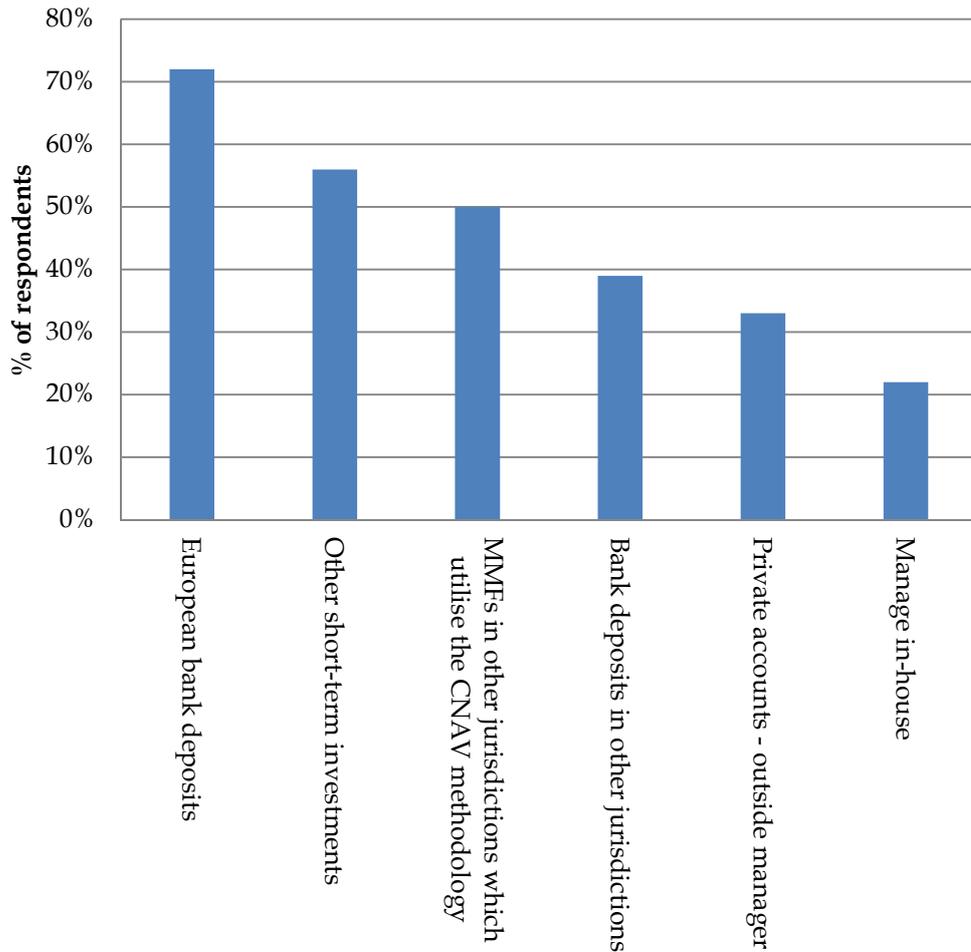
**Figure 7: Changes in MMF usage in the event that CNAVs are no longer available in Europe, percentage of MMF investors**



Source: Treasury Strategies (2013), European Money Market Mutual Fund Survey on Regulation.

In terms of the likely alternatives to MMFs which might be employed in the event that CNAVs became unavailable, investors reported to Treasury Strategies that the most likely strategies would be European bank deposits; other short-term investments (which seems to imply direct investments in money market instruments); and investments in CNAV MMFs in other jurisdictions.

**Figure 8: Alternatives to CNAV MMFs**



Source: Treasury Strategies (2013), European Money Market Mutual Fund Survey on Regulation.

In response to Europe Economics interviews, some operators felt unable to speculate about the likely destination of CNAV MMF funds. They argued that banks would be unwilling to accept a substantial increase in short term deposits and VNAVs would not fit the operational requirements of investors. Others and those investors we spoke to stated that the most likely destinations were VNAV funds – though investors generally anticipated some cost in terms of operational efficiency – and bank deposits.

## 1. VNAV funds

The VNAV sector currently has assets under management of approximately the same order of magnitude as the CNAV sector. As explained above, investors that choose CNAV do so for a variety of reasons that range from VNAV investments being forbidden by asset management policies because they are insufficiently cash-like to the ability to secure funds intra-day in CNAV funds to the tax implications of using VNAV. The view of many – though not all – of those we interviewed was that this meant that, for the overwhelming bulk of CNAV investments, a switch to VNAV would either not be an option or be very unattractive relative to other alternatives.

Whilst the analysis of this point from stakeholders seemed relatively definitive in respect of the current VNAV market, we are at this stage not fully convinced that there might not be a change in VNAV offerings that would make a more widespread switch into VNAV more feasible.

There are two potential models for this development:

- The VNAV market that has evolved in France differently from the VNAV market elsewhere, partly reflecting that CNAV funds are not permitted in France. The de facto elimination of CNAV in their current form might induce changes to the VNAV offered to more closely mirror the French experience.
- Those firms outside France that offer VNAVs with same-day redemptions today. Aviva, for example, offers a VNAV fund priced to three decimal places although they note that it is “quite challenging to price funds on a daily basis and simultaneously provide your clients with same-day settlement”.

VNAV funds might be offered that transparently meet a de facto “penny rounding” standard. That is to say, although they would report their values to four decimal places, they would demonstrate that they always kept a unit value of above 0.9950.

Again, although some VNAV currently do not provide so-called “t+0” payouts, instead paying out redemptions once values have been fully recalculated (as opposed to CNAV which offer intra-day payout, increasing their similarity to cash), there could be a greater use of intra-day cut-offs and recalculations that allowed VNAV payouts to occur at multiple points within a day – albeit without the 100 per cent capital preservation of the paradigm CNAV.

Hence, although the message of many of the stakeholders interviewed has been that relatively little CNAV could and would migrate into VNAV, it seems possible that a future evolution of the VNAV market might mean that volumes switching into VNAV could in practice be larger than most stakeholders anticipate. Indeed, we would estimate that, amongst those investors that do not have legal bars on using VNAV, half (or perhaps slightly more than half) their current CNAV assets under management would be converted to VNAV. (We note that this estimate is consistent with the estimates of a minority of those stakeholders that we interviewed.)

This result may depend on the de facto abolition of CNAV funds being combined with changes in tax rules in some Member States. The US has recently changed its tax treatment of VNAVs, with two changes that:<sup>14</sup>

- allow shareholders to measure net gains or net losses without transaction-by-transaction calculations; and
- extend the waiver previously only available to CNAV for gross-proceeds reporting, basis reporting and holding-period reporting to VNAV.

## 2. Short-term wholesale bank deposits or other short-term bank debt

Since CNAV are intended to act as near-cash, perhaps the most natural alternative, if CNAV were de facto abolished, would be for the investment funds displaced to move, instead, into bank deposits or short-term bank bonds.

Stakeholders are of the view that there could well be a significant appetite amongst CNAV investors to use bank deposits, certificates of deposit or bank bonds instead. The implications of this are disputed. Some stakeholders contend that bank prudential regulations are tending to deter banks from accepting such deposits. Indeed, in some cases banks accepting such deposits might even incur net costs by doing so, and in the current high-liquidity environment banks would not obtain an offsetting liquidity gain. Instead, they would simply expose themselves to highly liquid short-term obligations. It might therefore be questioned whether banks would be willing to accept additional CNAV funds on the scale involved.

Other stakeholders take a different view, claiming that additional corporate cash balances will tend to be attractive to banks even under the new rules.

On this point, we also note that money market funds already hold some 38 per cent of short-term bank debt.<sup>15</sup> The scale of impact upon banks should therefore be considered mainly in respect of what additional inflows, arising from the de facto abolition of CNAV funds, would be incremental to this.

Our view is that, even if there were regulatory costs to accepting additional corporate cash, for investors with a sufficiently strict requirement for cash or near-cash it might not be inconceivable for banks to offer low- or negative-yielding short-term products, at least in the current economic environment. After all, in recent years investors have shown an appetite for purchasing government debt with (committed) negative real-terms yields (e.g. on some UK index-linked debt, or Nestlé debt in Switzerland).<sup>16</sup>

It is thus not obvious that, if investors attach a sufficient importance to short-term liquidity and relative security, the fact that banks might have to charge for the service would mean current

<sup>14</sup> US Treasury (2014) Fact Sheet: Treasury Guidance on Accounting for Gains and Losses in Certain Money Market Funds.

<sup>15</sup> Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds, section 2.2.1.

<sup>16</sup> Thompson, Christopher & Moore, Elaine (2015) Nestlé bond yields turn negative, *Financial Times*. This reflects an expectation of an appreciation in the currency as well as the perceived security of the asset.

CNAV investors would not divert funds into such deposits or bonds. There might, however, be impacts upon systemic risk of a build-up of such bank obligations, which we shall explore further below.

Our current estimate is that, amongst those funds that do not transfer into VNAV or take up the Retail or EU Public Debt CNAV options, the considerable bulk will move into banks.

### **3. CNAV funds outside the EU**

Some CNAV investors are corporate treasuries of multi-national multi-jurisdictional firms. In a small number of cases, such firms may currently manage international cash holdings out of Europe, via CNAVs, but have the option of managing their international cash holdings from some other jurisdiction. For such investors, the natural alternative to an EU CNAV might be a CNAV outside the EU – e.g. in Asia.

Interviews with stakeholders suggest that some firms have already transferred funds to Asian CNAV funds (perhaps partly reflecting higher yields available there). However it seems likely that the scale of such a transfer would be limited by the needs for cash-equivalent investments to be available for operational use in Europe (and in a European time zone, making same-day redemption easier).

### **4. Direct investment in government debt**

Another alternative for CNAV investors would be direct investment in close to maturity government bonds or T-bills. This option is of course available to CNAV investors now. Investors that choose to invest in MMFs (which must have a cost disadvantage against direct investment) do so in order to access the greater diversity in investments and dilution of fixed management costs across a greater pool of assets that may be possible in money market funds with substantial assets under management.

MMFs can also provide enhanced liquidity through t+0 settlement. The maturities of the bonds in which the firm had invested might otherwise dictate the availability of funds for operational purposes. Firms would therefore face the potentially difficult task of matching maturities to expected and unexpected needs for funds for operational purposes.

These issues mean that for many investors this option would not be a feasible or acceptable substitute. It may be more practical for larger investors, and more prevalent in the event that the alternatives are limited. For example, direct investments might be a more common substitute for CNAVs if VNAVs are not able to develop as an effective alternative to CNAVs (across the board or in specific Member States due to specific tax and accounting rules), or if the yields on bank deposits are particularly low or negative (which would violate the preference of investors for capital preservation).

## **5. Direct investment in commercial paper**

Another alternative for CNAV investors would be direct investment in commercial paper. As previously, they could do this now – and the same set of issues would apply here as with government bonds (potentially more so, although commercial paper is less obviously higher risk than government bonds than it was seen as in the recent past). In addition, these investors might lack the necessary skillset to undertake the requisite due diligence prior to making such an investment. Again, these issues mean that for many investors this option would be an unacceptable substitute and it would only be employed in the absence of better alternatives. Indeed, we would expect this to be even less common than direct investment in government bonds.

## **6. Bespoke arrangements with banks**

A small portion of CNAV fund assets might be diverted into bespoke funds, created on a one-to-one basis with banks for specific clients. This seems very unlikely to be a large portion of the total, as in order for such an arrangement to be worthwhile to the bank concerned, it would have to involve a sufficiently large investor that was prepared to commit to using that bespoke arrangement for a sufficiently long term to cover the cost of arrangement.

# **II – Impacts on different stakeholders**

## **1. MMF operators**

The impact on MMF operators would depend on:

- the overall change in MMF funds under management; and
- whether they are able and willing to switch to VNAV funds.

To the extent that funds are redirected to bank deposits, operators will see a reduction in total funds under management. It should be remembered though, that many MMF operators are either banks themselves (e.g. HSBC) or subsidiaries of banks (e.g. Amundi, which is a subsidiary of Crédit Agricole and Société Générale).

To the extent that funds are redirected to VNAV MMFs, operators which will tend to benefit are those who are already familiar with or able to develop effective VNAV MMFs with features like same-day redemption and capital preservation prized by investors. That may mean that MMF operators domiciled in France, where VNAV MMFs are already the norm, will gain and those based in Ireland or Luxembourg, where most CNAVs are based, will lose out. Or it may mean that those operators already offering VNAV MMFs and operating in the markets where investor expectations are shaped by CNAV MMFs will gain (e.g. Aviva or Standard Life).

The answer is likely to come down to which of those types of operators can best convince investors on features such as credit quality assurance and meet the regulatory requirements while still delivering positive yields and diverse, secure investments.

In terms of the relative impact to small and large fund operators, we are of the view that the reduction in MMF funds under management would reduce the ability of large firms to exploit economies of scale. Smaller, niche operators could also benefit from the reduced sponsor support, a conclusion which appears consistent with McCabe (2010)<sup>17</sup> who finds that sponsor support for MMFs was more likely for those with bank-affiliated sponsors. In addition, Di Maggio and Kacperczyk (2014) find that “funds affiliated with large financial institutions are more likely to exit the market [in a low interest rate environment] while funds managed by independent asset management companies take on relatively more risk”.<sup>18</sup> They in part attribute this to the higher concerns among large financial institutions about the potential for wider reputational loss as a consequence of fund failure.

## 2. Corporate issuers

Of the assets under management in CNAV funds, our analysis suggests that around two thirds is in financials and rather less than 10 per cent is currently invested in the non-financial corporate sector. This is shown in Tables 3, 4 and 5. It is natural to suppose that the portion of CNAV that was diverted into new VNAV might well be invested fairly similarly – though it is difficult to use current VNAV data to estimate how similarly, because we believe that the future VNAVs that might attract former CNAV funds could well be very different from current VNAVs.

However, those CNAV funds that are diverted into government bonds or T-bills (which may be the most practical option for direct investments, if firms are not able to duplicate the analysis of credit quality for individual corporates currently done by MMF operators), non-EU CNAV or short-term bank debts would, by and large, cease to be available to the non-financial corporate sector. That could increase the spread of non-financial corporate bonds yields versus those of government bonds and banks.

On the other hand, if the Amendments were successful in creating large scale EU public debt funds that were similar in size to current CNAV, that would imply a considerable substitution between the assets in which CNAV currently invest (of which EU public debt is only a small proportion) and EU public debt. Should that occur, one would expect one implication to be a fall in the yields on EU public debt (as demand would be higher so EU public debt bond prices would rise and hence yields would fall). Another implication would be the yields on corporate bonds, at the maturities CNAV currently invest in, rising (as demand for them would have fallen, having been diverted instead into EU public debt).

Some stakeholders suggested that, given the significance of CNAV MMF demand at some points in the yield curve, in distressed market conditions one implication might be that in order to achieve a similar mix of risk and maturity, corporate issuers might need to issue very short-term and longer-term debt more frequently (having lost some demand for short- to medium-term debt in the maturities upon which CNAV typically focus, at present). Such a process of more frequent issuance and re-issuance would increase transactions costs.

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<sup>17</sup> McCabe, P. (2010), ‘The Cross Section of Money Market Fund Risks and Financial Crises’, Federal Reserve Board Working Paper.

<sup>18</sup> Di Maggio, M. and Kacperczyk, M. (2014) ‘The Unintended Consequences of the Zero Lower Bound Policy’. *Working Paper*.

Although there would be a reduced ability to raise debt across all corporate issuers, we believe that smaller firms would find it more difficult to sell their short term debt issuance. However, although more difficult to sell a given unit of short term debt, smaller firms in Europe tend to be more reliant upon bank debt than corporate debt for short-term financing, raising corporate debt (if at all) mainly at longer maturities. Hence, even though both small and large firms could be negatively affected here, it seems plausible that losses to larger firms (which are more likely to issue short-term debt) would be greater, so that smaller firms would gain in relative terms.

### **3. Public sector debt issuers**

Public sector debt issuers might see reduced premia on short-term borrowing and increased demand for short-term debt, even with a reduction in demand from euro- or sterling-denominated prime CNAV funds. The volume is likely to be small in the context of the overall volume of overall public sector borrowing. EU public sector net borrowing was 437 billion euro in 2013<sup>19</sup> and therefore, while money market funds hold large volumes of assets under management, moderate changes in their appetite for public sector debt are unlikely to affect the overall balance of supply and demand significantly.

However the effect might be more significant with respect to short-term debts. Around 22 per cent of short-term debt securities issued by governments and the corporate sector are held by MMFs.<sup>20</sup> There may therefore be two effects:

- A reduction in the cost of short-term borrowing which would otherwise have taken place.
- An increase in short-term borrowing relative to long-term borrowing.

The former would be viewed as a broadly sanguine development by European government. The latter might create some concerns over an increased vulnerability to spikes in short-term yields, for example in the event of concerns over sovereign credit risk. This might particularly be the case given the strong preference for those investors currently using CNAV MMFs to preserve capital and liquidity.

### **4. Corporate investors**

Corporate investors would be affected to the extent that they were unable to access the features that they currently value in CNAV MMF funds. Those operating in Member States where the tax and accounting treatment of CNAV funds is particularly simple relative to VNAV funds might be affected the most. Those investors might find that a shift to bank deposits is more attractive but have to accept a significant reduction in yield as a result.

Investors from other time zones might also be affected more. Interview participants have suggested that they are likely to be affected more as the time zone difference often means that

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<sup>19</sup> Eurostat, General government net borrowing.

<sup>20</sup> Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds, section 2.2.1.

they are particularly reliant on the flexibility of CNAV MMFs. This may also limit the extent to which funds are moved to CNAV MMFs in other jurisdictions.

The consequences are also likely to be particularly severe in the short-term for those investors who are required to hold short-term funds in stable net asset value funds. This short-term disruption might constitute a source of systemic risk as a large number of firms attempt to address a similar change in their investment options.

In terms of the relative impact on small and large corporate investors, we believe that small corporate investors could be disproportionately burdened as they are less able to take advantage of alternative investment channels. Substituting is more naturally done by larger corporate investors with correspondingly large corporate treasury departments. Large corporate investors are better placed, for example, to consider investment in CNAV funds outside the EU or in establishing bespoke arrangements with banks. We also believe that large corporate investors would be somewhat better placed to take advantage of the new VNAV offerings that could emerge (as outlined earlier).

### III – Systemic risk

The rationale for the European Commission’s proposals includes the idea that money market funds are either themselves a source of systemic risk or, in the event that a systemic crisis arises elsewhere in the financial system, a conduit and multiplier of systemic problems. For example, Kacperczyk and Schnabl (2013) found that, during the financial crisis, there were strong incentives for fund operators to take on additional risk, as fund inflows were closely responsive to fund yields, and that funds experienced runs as a result of this risk taking.<sup>21</sup> Although we are aware that this contention is disputed – in particular by operators of and investors in CNAV funds – it does not fall within our remit in this study either to support or to criticise the Commission’s rationale as set out. Instead, we take it as given for our purposes here.

Given our emerging view that the Amendments under consideration would de facto eliminate the CNAV market, in itself that would have the advantage, insofar as the Commission’s analysis of systemic risks associated with money market funds is correct, that there would be no (or almost no) CNAV funds providing such risks. This is in line with the recommendations of the Financial Stability Board<sup>22</sup> and the European Systemic Risk Board<sup>23</sup>, which both propose as one recommended reform a mandatory move to variable net asset value funds, due to the specific systemic risks created by CNAV MMFs.

However any reduction in systemic risk posed by CNAV MMFs (which were instructed to consider as a potential compensation for any disruption to investors, issuers, and operators) might be balanced by an increase in systemic risk elsewhere. The systemic risk can be conceived of as emanating – to some considerable degree – from the characteristics of the investments concerned, with investors expecting a high degree of security and liquidity. The resulting tendency to run at times of financial stress and to redeem rapidly and unpredictably might

<sup>21</sup> Kacperczyk, M., and Schnabl, P. (2013), ‘How Safe are Money Market Funds?’, *Quarterly Journal of Economics*, vol. 128, pp. 1073-1122.

<sup>22</sup> Financial Stability Board (2012) ‘Strengthening the Oversight and Regulation of Shadow Banking’.

<sup>23</sup> ESRB/2012/1. Recommendation of the European Systemic Risk Board (December, 2012).

create systemic risks at those institutions to which the funds presently invested in CNAV MMFs are invested in if CNAV MMFs were no longer available.

It is noted that those who are institutional (non-retail) investors, being better informed, are more likely to react to changes in expected performance – e.g. they may “run” first if a CNAV risked breaking the buck. It is sometimes naïvely assumed that this in turn means that better-informed investors are a source of market malfunction, but that is to misunderstand the process. Under orthodoxy finance theory, market malfunction is never the result of informed investors adjusting to new information. Rather, in such cases, volatility and runs are the signs of markets performing efficiently – a “run” is the economically efficient outcome, not a market failure. Therefore, in so far as the goal of regulatory interventions is to improve market functioning, informed (non-retail) investors are not the appropriate target. On the other hand, if (as is often the case with policy interventions in this area) the goal of regulation is to dampen market-led volatility even at some potential cost to growth and returns for both well-informed and uninformed investors – e.g. because such volatility (even if economically efficient in a narrow sense) might have undesirable social consequences (such as unemployment, social disorder as banks collapsed and depositors queued in the streets to attempt to withdraw funds, or pressure for economically inefficient bailouts of financial sector institutions) – then informed investors might well be the natural target of policy.

## 1. Frequency of CNAV fund failure

Up until the financial crisis of 2008, it was extremely rare for money market funds to fail (to “break the buck”). The failures that did occur arose from specific credit events or mismanagement of funds and the recovery rates were extremely high. The two best-known such cases were the First Multifund for Daily Income, which broke the buck in 1978, paying 94 cents in the dollar<sup>24</sup> and the Community Backers of US government, which broke the buck in 1994, paying 96.1 cents in the dollar<sup>25</sup>.

However, part of the reason money market fund failures were so rare was that there was almost always sponsor support if a fund was close to “breaking the buck”.<sup>26</sup> During the 2008 financial crisis, sponsor support for money market funds occurred in a range of cases and the Commission argues that a perceived absence of sponsor support caused runs:<sup>27</sup>

*Such an event occurred in 2008 in the US when the Reserve Primary Fund was unable to maintain its stable NAV after Lehman defaulted (the fund held assets issued by Lehman). During the week following this event, the investors withdrew money amounting to 300 billion USD or 14% of total US MMF assets out of a fear that other sponsors would not be able to maintain the stable price. In fact the outflows directly following the collapse of the Reserve Primary Fund were more than two times larger than the initial outflows triggered by the Lehman collapse. This tends to prove that the absence of sponsor support is in itself a cause of runs. The European CNAV MMFs were also affected by massive redemptions. According to data collected from the IMMFA organization, the CNAV MMFs encountered redemptions amounting to 25% of their total assets in a very short time period.*

<sup>24</sup> See p. 15 of <http://www.sec.gov/litigation/aljdec/1982/id19821229is.pdf>

<sup>25</sup> See section III.E of <https://www.sec.gov/litigation/admin/33-7625.txt>

<sup>26</sup> Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds, section 2.2.1.

<sup>27</sup> Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council on Money Market Funds, section 2.2.2.

It is arguable that such support was itself a result of the actual or implicit government bailout guarantees provided to the banking and insurance sectors. Since sponsors themselves were confident of being, or actually were, bailed out, they were able in turn to bail out their money market funds and it was unattractive to them to damage themselves politically, or to create financial disruption or reputational damage, by allowing their money market funds to break the buck.

Since 2008 there have been concerted efforts to change banking regulation to make government bailouts much less likely. In particular, the “bail-in” bank resolution processes introduced both at EU level and independently by Member States such as Denmark and the UK might mean that, in the future, banks would be much less likely to anticipate being able to attract government support if they became financially distressed. Accordingly, their appetite to pass on the bailout process in terms of themselves bailing out their money market funds might be much reduced. That could mean sponsors would be more likely to allow funds to break the buck.

Furthermore, money market funds are significant investors in short-term banking sector debt – by some estimates holding somewhere between a third and two fifths of short-term EU bank debt. That might mean that the same process of bank bail-ins could leave them exposed to credit events more frequently than has been the case in the past. An illustration of this might be the events of 2014 in South Africa where the bail-in applied to African Bank Investments (Abil), involving a 10 per cent haircut on senior debt,<sup>28</sup> led to 10 or more South African money market funds breaking the buck.<sup>29</sup>

In combination, the reduced appetite of sponsors to provide implicit support for money market funds, together with the increased likelihood of some of the money market instruments that money market funds have traditionally used being subject to haircuts, makes it plausible that, in the future, CNAV failures could be materially more common than in the past. In addition, the failure of the Reserve Primary Fund suggests that an 80 per cent EU public debt threshold, as set out in Amendment 25, may not be sufficient to prevent CNAV MMF failure. The Reserve Primary Fund broke the buck as a result of Lehman’s commercial paper holdings which were substantially less than 20 per cent of the total assets under management. Consequently, one impact of the Amendments under consideration, through eliminating the considerable majority of CNAV funds, would be a reduction in the number of CNAV failures – which might otherwise in the future be quite material.

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<sup>28</sup> Senior debt is debt that takes priority over other non-collateralised debt owed by the issuer and must be repaid first in the case of bankruptcy.

<sup>29</sup> Johnson, Steve (2014) Future of money market funds questioned, Financial Times.

## 2. Frequency of failure in other funds and institutions

### Corporate investors

#### Banks

There are two additional means by which the Amendments under consideration might affect the degree of systemic risk in banks.

First, if short-term bank debt became a significant alternative home for CNAV funds, it could test the robustness of the systemic risk-reducing components of the new regulatory framework for banks. Those banks would have to accommodate investments which were very sensitive to any risk of capital not being preserved or a reduction in liquidity. That might mean sudden runs of those funds currently invested in CNAV MMFs in the event that there was a perceived risk to the bank.

More generally, there are reasons corporate treasuries currently prefer to rely upon CNAV funds over bank deposits, despite very low yields. Amongst those reasons might be that banks present particular kinds of risks during systemic crises.

Second, the money market instruments for which money market funds have the greatest appetite, relative to other investors, appear to lie in the space between very short maturity bonds and medium- to long-term bonds. That means that when there are financial crises that lead to the freezing of bond markets at very short maturities (e.g. because of sudden liquidity demands) or longer maturities (e.g. because of concerns about credit risk), the liquidity provided by money market funds demand at intermediate maturities provides a fall-back for the system as a whole, limiting the spread of such problems. Eliminating money market funds might risk removing this second-buttruss defence against systemic collapse. Participants in interviews for this project noted the role played by MMFs during the financial crisis when other sources of funding became scarce.

#### VNAV funds

Insofar as a significant proportion of CNAV funds converted to existing or (as we would anticipate) new forms of VNAV, the impacts are more difficult to anticipate. It is possible that, VNAVs being by nature less subject to discontinuities than CNAVs (there is no “breaking the buck”), VNAVs would be less likely to be a source, conduit or multiplier of systemic risk, since there would not be the risk of such discontinuities tending to coincide (they wouldn’t all “break the buck” together).

But, on the other hand, the new VNAVs that evolved might have their own new risk characteristics. It might be, for example, that former CNAV investors were (after other appropriate tax and regulatory changes) willing and able to stay in VNAVs provided that their quoted value would not “break the buck”, if it were penny rounded (i.e. if it stayed at 0.9950 or above, per unit), but that a fall below this level might trigger departure. In such a case the idea that the new VNAVs did not involve the same discontinuities as CNAVs could prove illusory and the more that VNAVs replicate the operational features which investors value in CNAVs, the less systemic risk would be reduced overall.

Putting the same point more directly, there are funds that have an appetite for very stable asset valuation with very high liquidity. A portion of these funds currently reside in CNAVs. If CNAVs are largely abolished, these funds will seek other assets with very stable asset valuation and very high liquidity. Wherever they go, if market conditions threaten liquidity or asset valuations, those funds will tend to run. The main driver of such runs is the appetite for investment characteristics that the funds themselves have. It is likely to be impossible to prevent such funds from finding an investment home from which they would flee when threatened. But if it were possible to prevent this, it might be disruptive to do so and would in turn create new problems that it would be impossible to anticipate and mitigate fully.

There is thus a policy trade-off. The less disruptive any measure is that drives funds out of CNAVs, the less it is likely to achieve in terms of reducing runs.

The best ambition, therefore, may not be the elimination of funds flight. For example, that new VNAVs may experience runs should not be considered a decisive objection to the reform. Rather, the correct ambition might be that funds flight should be contained to institutions and investments for which funds flight and institutional failure would be manageable, instead of broader unacceptable systemic disruptions. The question then is whether it is more acceptable for there to be runs on new VNAVs than on existing CNAVs.

### **3. Transition risks**

In addition to all of the above, there is also the question of whether the process of transition, with 530 billion euro finding a new investment home, could itself be a systemically significant event. The European Systemic Risk Board noted that the shift from CNAVs to VNAVs would be “operationally challenging” for both the operators and investors, and that it could create redemption pressure due to concerns about “the prevailing CNAV [differing] from the ‘true’ VNAV”. This is why the European Systemic Risk Board proposed a minimum two-year transitional phase. We are of the view that there would be the risk that such large flows of funds might induce mis-pricing or other errors during the transition, and that the crystallisation of such errors could itself be a source of pressure. We believe there should be no question that the wholesale relocation of CNAV funds would be a large enough event that the risk of its being disruptive or at least systemically significant should be taken into account.

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## Annex I – Amendments under consideration

### Amendment 22

Article 1 a (new)

Types of CNAV MMF

As from the date of the entry into force of this Regulation, CNAV MMFs shall operate in the Union only as either an EU public debt CNAV MMF or as a Retail CNAV MMF. All references in this Regulation to CNAV MMFs shall mean both EU public debt CNAV MMFs and Retail CNAV MMFs, unless otherwise specified.

### Amendment 23

Article 2 – paragraph 1 – point 12 a (new)

(12a) "Retail Constant Net Asset Value Money Market Fund" (Retail CNAV MMF) means a CNAV MMF that is available for subscription only to charities, non-profit organisations, public authorities, public foundations and natural persons.

### Amendment 25

Article 2 – paragraph 22 a (new)

(22 a) "EU public debt CNAV MMF" means a CNAV MMF which, by 2020, invests at least 80% of its assets in EU public debt instruments as defined in point (22 c).

### Amendment 27

Article 2 – paragraph 22 c (new)

(22 c) "EU public debt instruments" means public debt instruments that are cash, government assets or reverse repos secured with government debt of the Member States. For the purpose of a consistent application of this point, ESMA shall develop draft regulatory technical standards specifying quantitative and qualitative liquidity requirements applicable to public debt instruments and quantitative and qualitative credit quality requirements applicable to public debt instruments. ESMA shall submit the draft regulatory technical standards referred to in the first subparagraph to the Commission at the latest one year after the entry into force of this Regulation. Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

## **Annex II – Structured questionnaire for market operators**

### **1. Introduction**

Thank you for participating in our interview.

#### **The subject of the interview**

Europe Economics is an independent firm of economic consultants. We have been commissioned by the European Parliament to assess the potential impacts of a number of amendments to Money Market Fund regulations (proposed by the European Commission) under consideration in committee. An accreditation letter from the European Parliament is available.

Four substantive amendments to the current Commission proposals are being considered in the context of the ECON committee's draft report:

- Amendment 22 would require every CNAV money market fund to be either an "EU public debt CNAV MMF" or a "Retail CNAV MMF".
- Amendment 23 defines a Retail CNAV MMF as a CNAV money market fund which is only available to retail investors (natural persons, charities, non-profits, public authorities and public foundations).
- Amendment 25 defines an EU public debt CNAV as a fund which, by 2020, invests at least 80 per cent of its assets in EU public debt instruments.
- Amendment 27 defines EU public debt instruments as public debt instruments that are cash, government assets or reverse repos secured with government debt of the Member States.

The amendments add up to a substantive proposal that CNAV MMFs, which are not exclusively invested in by retail investors, should only be allowed in the event that they are ultimately secured against EU sovereign debt.

We would appreciate your feedback as part of our review of those proposals and whether they are a feasible and worthwhile regulatory initiative.

#### **The structure of the interview**

We would like to ask some questions on two broad topics:

- Your firm's funds. High-level facts about their characteristics and their investments.
- The likely impact of the regulation. How your firm and others like it might be affected by and respond to the regulations proposed by the European Parliament.

Please note that this interview template is not expected to be a stand-alone questionnaire, but rather to form the basis of and to guide our discussion. We hope that you will be able to use it to consult with colleagues on appropriate answers where necessary, but we also hope to be able to

explore any points which you may wish to raise which are relevant to the feasibility or likely impact of the proposals.

**Confidentiality**

This interview will be confidential between Europe Economics and your firm. No responses will be shared and information gathered will be used in aggregate form only in our analysis. The European Parliament will know the identity of the firms we have spoken to, but will not know what information comes from which firm, nor the identity of individual interviewees. It would be helpful if you highlighted any material which you particularly regard as commercially sensitive.

**Basis for comparison**

While the European Parliament amendments would amend the legislative proposals already set out by the European Commission, they are interested in understanding the impacts relative to the status quo. In other words, you should attempt to describe how you would expect the new rules to change things from how they are now, not from how they might be if the European Commission’s existing proposals had been enacted.

**2. Fund characteristics**

This section considers the characteristics of the funds which your firm manages.

Number of funds \_\_\_\_\_

Member States from which Money Market Funds are operated \_\_\_\_\_

Do you operate CNAV (constant net asset value) funds \_\_\_\_, VNAV (variable or accumulating net asset value) funds \_\_\_\_, or both \_\_\_\_?

**CNAV funds**

What is the total value of the assets under management in your firm’s CNAV funds?  
\_\_\_\_\_

What is the rough percentage of the investor population for each fund (or, failing that, an average across funds) which could be described as “retail” (i.e.) investors?

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Are any of the CNAV funds marketed exclusively to retail investors? Y/N  
 If Yes, how many such funds and what is the value of assets under management?

What proportion of your CNAV funds' assets are invested in public debt instruments that are cash, government assets or reverse repos secured with government debt of EU Member States?  
\_\_\_\_\_

What proportion of your CNAV funds' assets are invested in public debt instruments that are cash, government assets or reverse repos secured with other government debt (e.g. US Government Treasuries)? \_\_\_\_\_

What proportion of your CNAV funds' assets are invested in money market instruments issued by non-financial corporations? \_\_\_\_\_

What proportion of your CNAV funds' assets are invested in money market instruments issued by financial corporations, e.g. banks? \_\_\_\_\_

How many people are employed in the management of your firm's CNAV funds? \_\_\_\_\_

Do you currently hold any form of capital buffer? Yes/No

If Yes, roughly what percentage of assets under management is that buffer? \_\_\_\_\_%

If Yes, who is the sponsor of the buffer (e.g. the fund or the sponsor)? \_\_\_\_\_

### **VNAV funds**

What is the total value of the assets under management in your firm's VNAV funds?  
\_\_\_\_\_

What proportion of your VNAV funds' assets are invested in public debt instruments that are cash, government assets or reverse repos secured with government debt of EU Member States?  
\_\_\_\_\_

What proportion of your VNAV funds' assets are invested in public debt instruments that are cash, government assets or reverse repos secured with other government debt (e.g. US Government Treasuries)? \_\_\_\_\_

What proportion of your VNAV funds' assets are invested in money market instruments issued by non-financial corporations? \_\_\_\_\_

What proportion of your VNAV funds' assets are invested in money market instruments issued by financial corporations, e.g. banks? \_\_\_\_\_

How many people are employed in the management of your firm's VNAV funds? \_\_\_\_\_

**CNAV vs VNAV**

What would you see as the key differences between investors in CNAV versus investors in VNAV (e.g. attitudes to risk, whether operate in particular sectors, etc)?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

How difficult do you believe it for investors to switch between CNAV and VNAV funds? from money market funds to non-money-market funds?

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**3. Feasibility and impacts**

**Retail CNAV**

Do you believe it would be technically feasible to market a CNAV fund exclusively to retail investors (i.e. natural persons, charities, non-profits, public authorities and public foundations)? Y/N

Do you believe there are sufficient retail CNAV investors to sustain a market in retail CNAV funds? Y/N

If Yes, how large would you anticipate that market being as a proportion of the current CNAV market (in approximate % where "100%" means "the same size as at present")?

\_\_\_\_\_

Do you believe that the requirement for a capital buffer for retail CNAV funds would prevent or significantly reduce the extent to which retail CNAV funds were offered?

Prevent/Significantly reduce/Would not imply a reduction/Would increase

Do you believe that the requirement for a capital buffer for retail CNAV funds would significantly affect the types of instrument invested in? Yes/No

If Yes, please expand

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Do you believe that the European Parliament's proposed amendments explained in Section 1 above would increase or decrease the risk of a rapid fall in fund values at times of financial stress? Increase/Decrease/No significant change

And why?

\_\_\_\_\_

**EU public debt CNAV?**

Are there any Member States in the public debt of which money market funds would not be able to invest, for credit quality or other reasons? Yes/No

If so, which? \_\_\_\_\_

What criteria would imply that?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Would there be sufficient diversity in the remaining Member States for a CNAV money market fund to be viable? \_\_\_\_\_

**Behavioural response**

How do you think the overall market (or, if you are unable to comment upon that, firms like yours or your own firm) would change as a result of the restrictions envisioned in the European Parliament's proposed amendments set out in Section 1? Tick all that apply:

Answering for: Overall market (preferred response)/Firms like mine/My firm

Increase the share of funds under management accounted for by VNAV funds? Y/N

By what monetary amount or rough percentage of total MMF funds under management? \_\_\_\_\_

Reduce the share of funds under management accounted for by money market funds? Y/N

By what monetary amount or rough percentage of total MMF funds under management? \_\_\_\_\_

Reduce the firm's activity in the market, for example by closing funds? Y/N

By what monetary amount or rough percentage of total MMF funds under management? \_\_\_\_\_

What would you expect to be the impact on the overall investment pattern in terms of MMIs? (e.g. Could investment in public debt squeeze investment in commercial paper? What other such impacts might there be?)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

If you have identified any significant behavioural responses above, please explain in more detail, if you can, what aspect of the proposals you believe to be most material and the reasons why you expect it to have that impact.

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If you have identified any significant behavioural responses above, please any actions you might take to mitigate or encourage such migration.

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**Other**

Do you have any other concerns about the feasibility or impacts of these proposals?

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This study was requested by the European Parliament's Committee on Economic and Monetary Affairs (ECON), as part of Parliament's general commitment to improving the quality of EU legislation, and in particular its undertaking to carry out impact assessments of its own substantive amendments when it considers it appropriate and necessary for the legislative process.

The study concludes that the four substantive amendments in question, which are under consideration in the context of the ECON Committee's draft report on the Commission proposal on Money Market Funds (MMFs), would retain the effect of transforming the considerable majority of the Constant Net Asset Value (CNAV) MMF market in Europe. There would be some, but only limited, take-up of the proposed Retail CNAV or EU Public Debt CNAV Money Market Funds. Most of the funds currently invested in Constant Net Asset Value MMFs would move to either Variable Net Asset Value (VNAV) MMFs or short-term bank deposits. To some extent, the features of Constant Net Asset Value MMFs which are attractive to investors would be duplicated in Variable Net Asset Value MMFs, but, equally, the same concerns over systemic risk might also be replicated.

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