How Safe Are Money Market Funds? Risk Assessment and Selection Criteria

EXECUTIVE SUMMARY:

Since the introduction of the first fund in 1972, institutional money market funds have gained a well deserved position in most corporate cash portfolios, thanks to their safety, constant share price, liquidity, and competitive yield.

But money market fund investing is not risk-free. In the last 15 years, at least one institutional fund has broken the constant $1 price and dozens more were bailed out by their advisors in the wake of defaulted securities, wrong bets on interest rates, and external risk factors.

A Moody's survey series shows that, in the recent rising interest rate environment, the nation's largest institutional funds have managed portfolio maturity risk conservatively. However, risk exposure to less liquid and non-traditional securities has increased dramatically.

The financial wherewithal of the advisor, average portfolio maturity, securities holdings, fund performance, and fund ratings are some of the relevant factors an investor may consider in selecting the appropriate fund to meet their safety, liquidity and returns goals.

INTRODUCTION

Since their creation three decades ago, money market funds have grown into a popular cash management tool and have found their way into almost every corporate cash portfolio. Having grown accustomed to their safety and liquidity, few investors consider credit risk as a major concern in selecting a money market fund.

For many cash reserve accounts, money market fund balances represent significant portions of the total investment portfolio, sometimes up to 100%. Furthermore, investors often consider, rightfully so, this portion of their investments to be the most liquid and to be available on demand. The objective of this paper is to caution investors that, while generally safe as an asset class, money fund investing is not without risk. Properly evaluating the credit risk of fund investing should be an integral part of a treasury department's investment risk management practice.

The paper seeks to answer the following questions: what institutional money market funds are: why invest in them; whether the funds are really safe; whether they have gotten riskier over the years; and how investors should select a right fund.

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Lance Pan, CFA
Director of Investment Research
Main: 617.630.8100
Research: 617.244.3488
lpan@capitaladvisors.com

WHAT ARE INSTITUTIONAL MONEY MARKET FUNDS?

A money market fund is a type of mutual fund that invests in low-risk and highly-liquid short-term assets such as Treasury bills, bank certificates of deposit, repurchase agreements, and commercial paper. An attractive feature of the funds is a constant share price of $1. This allows investors to treat the investment as a potentially high-income alternative to bank savings accounts.

The Securities and Exchange Commission sets forth important provisions designed to limit potential money market fund investment losses to investors in the 2a7 section of the Investment Company Act of 1940. Over the years, this "2a7 rule" has received several revisions aimed at providing better investor protection. The latest revision came in 1991, when the SEC lowered the average maturity requirement from 120 to 90 days[1].

An institutional money market fund typically targets institutions and high net-worth investors with lower fee structures but with higher required minimum balances ($1,000,000 or higher). Typical institutional investors include banks, investment managers, retirement plans, endowment trusts, and corporations. Compared to general purpose funds, institutional funds may have higher return potential because of those lower fees and also due to more active management styles. These funds may also receive an array of services that are not available to retail shareholders.

Sometimes, a fund may call itself a "prime" fund to suggest the investment grade, or "prime-rated", nature of its securities and to satisfy institutions with fiduciary responsibilities. In general, at least 95% of a prime fund's securities are rated "first tier", such as Prime-1 by Moody's, and a small percentage in P-2 rated assets[2]. In practice, very few, if any, funds are managed as non-prime funds, so the "prime" claim is largely promotional.

WHY INVEST IN A MONEY MARKET FUND?

Safety: Investors generally consider a money market fund a safe investment instrument. The stringent 2a7 rule ensures that securities in the portfolio are relative short in maturity and are subject to limited interest rate risk when compared to longer-term bonds. The prime-rated nature of securities also limits credit risk.

Constant Share Price: The constant share price of $1 is another attractive fund feature. Although the Investment Company Act of 1940 requires all mutual funds to calculate share prices based on the current market value of securities held, the SEC exempted money market funds from this requirement so long as they follow the 2a7 rule. The funds achieve the $1 constant share price with either the "amortized cost" valuation method or a procedure called "penny rounding". The convenience of the constant dollar price allows money market funds to present themselves as close substitutes to savings and deposit accounts at commercial banks.

Liquidity: Virtually all money market funds permit investor to redeem shares on a same-day basis, although the cut-off time during the day may vary from fund to fund. The same-day liquidity is the main reason that many corporate cash investors use them to temporarily "park" its cash until deployment, or as "rainy day" funds.

Competitive Yield: Under normal market conditions, money market funds generally provide better returns than do bank money market deposit accounts, although exceptions occur. In recent years, these funds often also yielded higher than six- and 12-month CDs[3]. When interest rates rise rapidly, money market funds can be a better investment choice than either stocks or bonds.

The first money market fund, The Reserve Fund, began offering shares in 1972, to benefit from a banking regulation that limited savings rates banks could pay to its depositors. Since the late 1970s, explosive growth in the market has occurred thanks to higher rates, and this resulted in total money market fund assets rising from $4 billion to $235 billion between 1977 and 1982[4]. Even after the abolishment of Regulation Q, fund assets continued to enjoy their yield advantage and grew rapidly.

ARE MONEY MARKET FUNDS REALLY SAFE?

For many investors, the safety of money market funds is a foregone conclusion. However, while the asset class as a whole offers better investor protection than many other investments, money market funds are not risk-free. Some of the well-publicized risks are associated with a

fund abandoning its constant $1 share price, commonly referred to as a fund "breaking the buck".

Breaking the Buck: While allowing 2a7 funds to use constant share pricing, the SEC requires them to also compute the actual price that reflects the securities' marked-to-market values. Rising interest rates, credit losses, the use of derivatives, and fund expenses can all create a gap between the two prices. A significant divergence may cause investors to redeem their shares quickly. Eventually, selling assets at depressed levels to satisfy redemptions may result in the fund's actual price to fall below the SEC threshold ($0.9990 for the amortized cost method). The fund is compelled to then use the actual price instead, thereby breaking the buck[5].

Consider two funds as an example: one with a weighted maturity of 30 days and another with 90 days. Should short-term interest rates rise by 1% instantly, the first fund's actual price becomes 99.92 cents (1-(1% x 30 / 365)), which is within the limit allowed to carry the stated $1 price. The latter, however, would see its value fall to 99.75 cents (1 – (1% x 90 / 365)), and could "break the buck".

A fund breaking the buck is a serious credit event, as the lost confidence in a fund may lead to a spiral of more rapid redemptions and eventually larger credit losses for remaining investors. Although the SEC revised its 2a7 rule several times to minimize this likelihood, such risk still remains. A few recent incidents should serve as reminders that money market funds are not a risk-free asset class.

Defaulted Commercial Paper: In June of 1989, Integrated Resources, a major commercial paper issuer, defaulted on $213 million of outstanding debt. Two funds held enough of the issuers' paper to jeopardize their ability to maintain a $1 share value. The funds' advisers avoided the negative publicity by purchasing defaulted securities from the funds at a collective loss of about $32 million. In March of 1990, Mortgage & Realty Trust, a real estate investment trust, ran into similar problems with its commercial paper program that affected at least seven money funds. The funds' advisors again came to the rescue by purchasing the paper from the funds. Total losses to the advisors in this instance: $75 million.

Institutional Fund Breaking the Buck: The one known instance of an institutional money market fund actually breaking the buck occurred in 1994, when more than 20 funds suffered losses from derivative investments. Most of the funds were bailed out by their advisers, except for the Community Bankers U.S. Government Money Market Fund (note the safe sounding name), an institutional fund based in Denver, Colorado. It had invested 27.5% of its portfolio in adjustable rate structured notes, a form of derivatives. Sharply higher interest rates caused the value of the notes to decline quickly, and the share price fell to 96 cents. The fund was liquidated in September 1994 at a loss of 4 cents per share[6].

Other instances that threatened the $1 price included the December 1994 bankruptcy filing by Orange County, California which forced several fund companies to purchase affected securities from their tax-exempt portfolios, the February 1997 default by Mercury Finance Corporation, a sub-prime auto lender, on approximately $500 million of commercial paper, affecting three funds from a fund company, and the 2001 California energy crisis resulting in the default of PG&E and Southern California Edison, including $3.45 billion in commercial paper widely held by money market funds.

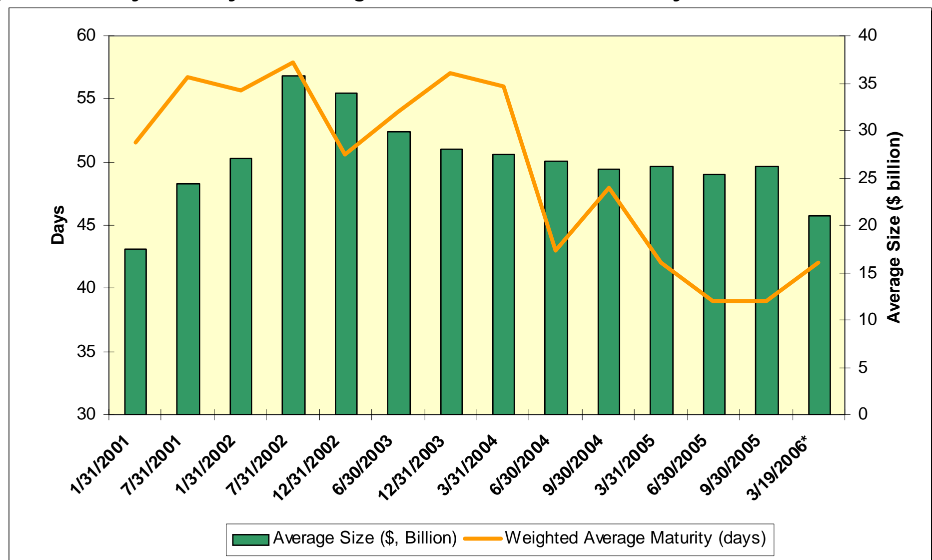
FDIC Warning: In each of the problems mentioned above, the fund advisers purchased defaulted assets from the funds to avert "a run on the fund". Such moves tend to create a market perception that a fund advisor will eventually bail out the troubled fund. However, banking regulators, including the Federal Deposit Insurance Corporation, recently alerted banks to the legal impediments if they decided to do so[7]. In addition to requiring the banks to consult with an appropriate federal agency, the regulators warned the banks, which collectively manage about one-third of all money market fund assets, to not "create an

expectation that the bank will prop up the advised funds" in an emergency. Such warnings may limit advisers' ability to offer financial support in the future.

HAVE MONEY MARKET FUNDS BECOME RISKIER LATELY?

One of the main reasons for us to examine this topic was our observation that, after a number of years of self discipline, the money market fund industry seems to have gradually increased its appetite for more credit and liquidity risk. To confirm our suspicions, we studied the semi-annual survey results of institutional fund manager activities by Moody's Investors Service. At least twice a year, the credit rating agency surveys managers of the nation's 15 largest funds on their asset size, weighted average maturity (WAM) and securities concentration[8].

Figure 1: Moody's Surveys of 15 Largest Institutional Prime Money Market Funds



Source: Tables from "At a Glance: Portfolio Management Activities of Large Prime Institutional Money Market Funds (individual titles vary slightly)", Moody's Investors Service, dates of publishing: April 2001, December 2001, May 2002, December 2002, June 2003, October 2003, March 2004, May 2004, September 204, January 2005, June 21st 2005, September 7th 2005, and February 3rd 2006. *Capital Advisors Group's estimate based on iMoneyNet data.

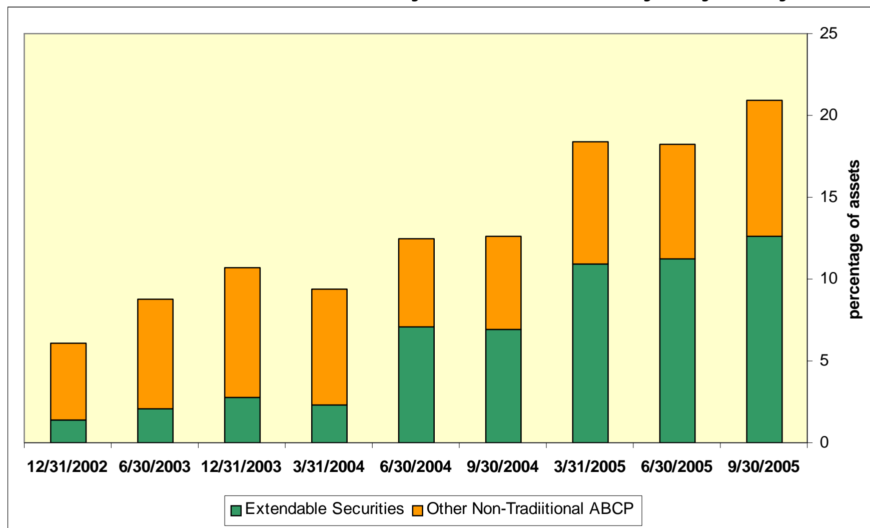
Shorter WAMs Mean Lower Risk: Figure 1 shows the average portfolio maturity of the average fund since 2001. After reaching a peak of 58 days, as a group, the funds shortened their WAM throughout the higher interest rate cycle, and finished at 42 days as of March 2006, comfortably below the 90-day legal limit. Short WAM usually means lower marked-to-market losses and higher yield potential in a rising rate environment.

Liquidity and Structure Risk on the Rise: Figure 2 presents the combined percentage in the average fund of securities other than the "plain vanilla" variety, such as commercial paper, bank certificates of deposit or Treasury bills. These non-traditional investments include extendable securities, such as extendable commercial notes and extendible asset-backed commercial paper (ABCP). Holders of extendable securities may see the securities' maturities extended from 30 days to 397 days when an adverse credit or liquidity event occurs. Other non-traditional ABCP securities are newer types of debt, such as ABCP medium term notes, structured notes, and collateralized debt obligations (CDOs), that are often not easily understood, not widely held, or cannot be sold quickly without price concessions.

Figure 2 clearly shows the increased use of non-traditional securities over the last four years, from a combined total of 5.7% in December 2002 to 20.9% in September 2005. These securities' high credit ratings and attractive yield may not compensate for less predictable portfolio maturity, cash flow and reinvestment opportunities. While not all of the newer securities are problematic, their increased use and the introduction of newer types require fund

investors to be more vigilant in their due diligence process with the fund managers.

Figure 2: Non-Traditional Securities in Money Market Funds Surveyed by Moody's



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HOW TO SELECT THE RIGHT FUND?

Having established that money market fund investing is not risk-free, and that the fund industry's risk appetite may be increasing, let us focus on the areas a corporate cash account should assess in looking to find a fund that satisfies its needs. Other than operational considerations, such fees and wire transfer features, we provide a sample of investment criteria to consider.

The Financial Wherewithal of the Advisor: When in need, fund advisors may buy defaulted securities from the fund, and may also waive fees and cut expenses to avoid the reputational risk of breaking the buck. The advisor's ability to offer and continue such support is, therefore, a strong factor to consider. Despite recent warnings from banking regulators, funds managed by large financial institutions with high credit ratings, such as major banks and securities firms, will likely have less of a confidence crisis in an event of emergency. By contrast, independent advisors and those with financially weak parents may not have the real or perceived financial wherewithal to provide such support.

Average Portfolio Maturity: When interest rates are moving higher, many funds voluntarily reduce their WAM to significantly shorter than the 2a7 limit of 90 days. Shorter maturities allow the funds to experience smaller unrealized losses and to increase its yield in pace with the Fed Funds rate. If a fund's WAM instead moves higher in this environment, it may indicate the fund is taking an unwarranted interest rate bet or being forced to sell its shorter, more liquid, securities to satisfy redemptions. Neither of these scenarios is good for investors. WAM information is available from independent mutual fund services such as Lipper and iMoneyNet.

Use of Derivatives and Illiquid Securities: The competitive nature of fund performance sometimes tempts fund managers to take on more risk by buying higher-risk and less liquid assets. The values of these securities tend to be less predictable, and may decline quickly when unforeseen events unravel. The 2a7 rule allows funds to buy derivative, downgraded, unrated, privately-placed, and other illiquid securities up to certain limits. The funds' semi-annual reports and the Moody's large fund surveys may provide a glimpse of portfolio holdings, but the information is often incomplete and outdated. In this case, a manager's track record in managing these securities becomes a key factor.

Fund Performance: Fund performance is a very relevant factor to consider, but picking a fund based purely on the highest current yield generally is ***not***. Rather, consider the other factors discussed above and select from a group of conservative funds that has consistently performed better than the peer average over 3 to 5 years. How a fund historically performed in a variety of interest rate and credit cycles is equally important. Lipper and iMoneyNet periodically report relative fund performance by fund rankings. Beware of funds that offer significantly higher yield than comparable funds, as it could mean either more aggressive investment tactics, or a temporary fee waiver to rapidly accumulate assets, instead of better investment expertise.

Fund Ratings: A money market fund may, at its discretion, place more restrictions on itself and ask to be rated by a credit rating agency. According to a recent Moody's study, all but two of the 165 rated US funds from 53 families are rated Aaa[9]. Whether to select a rated fund is a personal choice, as many fund companies offer a pair of funds managed under similar guidelines by the same managers. The expected return for the rated fund is usually lower due to voluntary restrictions placed on portfolio duration, credit ratings, and the basket for illiquid securities.

CONCLUSION

The use of institutional money market funds by most corporate cash portfolios is a strong testament to the fund industry's safety, liquidity, yield, and convenience. Since not all funds are created equal, however, investors should include fund selection as part of their credit review process. One must not rely on the constant $1 share price and a fund advisor's willingness to lend support as indications of its credit strength. Instead, investors should evaluate portfolio holdings and WAM, the managers' track record of risk appetite, patterns of shareholder redemptions, in addition to yield considerations, to come to an informed conclusion.

The fund industry has had the good fortune of sailing through relatively calm waters recently. But complacency and increased risk appetite may be present at some money market funds. The fact that regulators and credit rating agencies are keenly aware of the emergency issues should pique the investors' alertness as to the actual safeness of their money market funds.

Endnotes:

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2. John Downes & Jordan Elliot Goodman, editors, *Barron's Financial Guides, Dictionary of Finance and Investment Terms, Fifth Edition,* Barron's, 1998.
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6. Federal Deposit Insurance Corporation, *FYI: An Update on Emerging Issues in Banking - Effects of Interest Rates on Money Market Mutual Funds*, May 19th 2004.
7. Federal Deposit Insurance Corporation, *FYI: An Update on Emerging Issues in Banking.*
8. Moody's Investors Service, *At a Glance: Portfolio Management Activities of Large Prime Institutional Money Market Funds* (individual titles vary slightly), publishing dates: April 201, December 2001, May 2002, December 2002, June 2003, October 2003, March 2004, May 2004, September 2004, January 2005, June 21st 2005, September 7th 2005, and February 3rd 2006.
9. Moody's Investors Service, *Credit Opinions of Global Managed Funds*, May 2005.

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