What Investors Should Know about Money Market Reforms

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Executive Summary

→ New SEC regulations for the $2.7 trillion money market industry may present significant challenges to investors regarding the appropriate liquidity, volatility, credit and duration[1] risk for their cash and short-term assets.

→ With final implementation set for October 2016, the SEC regulations for prime funds[2] may require a floating NAV (FNAV) and impose redemption fees of up to 2%, and up to a 10-day halt in redemptions in times of stress.

→ These pending changes have driven many investors to seek out new solutions for their liquid investments.

Regulatory Reforms Will Change the Way Money Market Funds Operate

The SEC finalized reforms for the money market industry in 2014. These reforms came about as a result of the 2008 bankruptcy of Lehman Brothers, after which the U.S. Treasury was compelled to guarantee the $1 NAV of money market funds for one year. These reforms require that non-U.S. government (i.e., prime and tax-exempt) institutional money market funds transition to a floating NAV. Also, both non-U.S. government institutional funds and retail funds must impose certain liquidity fees and redemption limits, should liquid asset levels breach specified minimums. If weekly liquid assets fall below 30%, a fund may charge a redemption fee of up to 2% or halt shareholder redemptions for 10 days. If weekly liquid assets fall below 10%, a fund must charge a 1% redemption fee, if fund managers determine it to be in the best interest of the fund. U.S. government money market funds are exempt from these new regulations, but have the option to institute liquidity fees and redemption gates if they are disclosed; these funds can continue to offer fixed or constant $1 NAV (CNAV) options to their investors.*

What's at Stake: A Broad Range of Investors May Be Affected

Assets of Money Market Funds ($B) as of 9/30/15

	Total	Institutional	Retail
Prime	1,425	912	513
Treasury	1,001	795	205
Tax-Exempt	244	65	178

Source: Investment Company Institute

As the data above indicates, institutional prime money market funds, with total assets of $912 billion, may be most affected with respect to these new regulations. The Investment Company Institute (ICI) further estimates that approximately 34% of this total is truly institutional exposure; the remaining 66% may be owned by individual retail investors through their retirement funds and intermediaries. Whether fund managers will be able to look through to the end user of these retail exposures within their institutional funds is still an open issue.

*Although this type of money market fund seeks to preserve the value of an investment at $1.00 per share, it is possible to lose money by investing in the fund. Fund shares are not federally insured by the Federal Deposit Insurance Corporation or any other government agency.

[1] **Duration** is a measure of the sensitivity of the price (the value of principal) of a fixed income investment to a change in interest rates, expressed as a number of years. Duration risk refers to the potential for a change in interest rates to impact the price of a security.

[2] **Prime Funds** invest in short-term debt and seek to match the prime rate, the interest rate that banks charge large corporations (most creditworthy borrowers).

What Options are Available to Investors?

Investors have at least five investment options for their cash and short-term assets:

1) **Government money market funds with a stable NAV.** For investors unable to tolerate volatility in their cash portfolio, this may be the preferable option, currently with near zero yields (0.03% as of September 30, 2015)[1] and the potential for even lower yields (as discussed in the next section).*

2) **Bank Certificates of Deposit (CDs).** Investors seeking a higher yield, (and to achieve a stable return at maturity) may seek out Bank CDs, which are insured by the FDIC and offer maturity ranges from 21 days to 9 months that meet the needs of money market investors.

3) **Prime money market funds with a floating NAV.** For investors who can tolerate some volatility, but desire somewhat higher potential yield (approximately 0.05%)[1] and seek to maintain the maturity profile of a money market fund, prime funds may be the desired option. Prime money market funds invest in both government and credit assets. The potential drawbacks, however, are liquidity fees and redemption gates.

4) **Customized prime funds with a floating NAV.** Certain managers have proposed new prime funds that seek to offer higher yields, but limit volatility. One potential example might be a fund holding very short maturity (7-day) assets to limit both interest rate and credit risk.

5) **Ultra-short and short duration funds (with a floating NAV).** Institutional investors may consider moving some of their allocation to ultra-short and short duration funds that offer potentially higher yields (averaging 0.81% and 1.48%, respectively)[2], but which may have higher volatility by virtue of increased interest rate and/or credit risk. These funds would not be subject to mandatory liquidity fees and redemption gates. Note: these are not money market funds. Investment value and share price will fluctuate.

*Note: It is still possible to lose money in a fund managed for a stable NAV. [1] Sources: Lipper institutional government money market yield; institutional prime money market yield, as of 9/30/15. **Past performance is no guarantee of future results.** [2] Source: Yields are based on the Morningstar Ultrashort and Short Duration category averages as of 9/30/15.

The following table reflects Pioneer's views regarding the relative rank of these options with respect to yield, volatility, liquidity, credit risk and interest rate (duration) risk. **Note:** The investments you choose should correspond to your financial needs, goals and risk tolerance. For assistance in determining your financial situation, please consult an investment professional. Neither Pioneer, nor its representatives are legal or tax advisors. In addition, Pioneer does not provide advice or recommendations.

	Yield Potential	CNAV or FNAV	Volatility	Liquidity	Required Liquidity Fees	Mandatory Redemption Gates	Duration Risk	Credit Risk
1. Government Money Market Funds	Lowest	CNAV	Lowest	Daily	No	No	Lowest	None
2. Certificate of Deposit	Low-Moderate	Constant at Maturity	Low	Liquid at Maturity	Prepayment Penalty	No Penalty, but Prepayment	Varies	High
3. Prime Money Market Funds	Low	FNAV	Low-Moderate	Low, in Times of Stress	Yes	Yes	Low	Moderate
4. Customized Prime Money Market Funds	Low	FNAV	Low-Moderate	Low, in Times of Stress	Yes	Yes	Low	Moderate
5. Ultra-Short Duration Funds	Moderate	FNAV	Moderate	Daily	No	No	Moderate	Higher
Short Duration Funds	High	FNAV	High	Daily	No	No	High	Higher

Source: Pioneer Investments.

While any of these options may meet certain needs, investors should consider a more in-depth analysis of the benefits and risks of each.

1) **Government Money Market Funds.** While government funds continue to offer the potential benefit of a stable NAV, that desire for stability may come at the cost of significantly lower yields, should they be inundated with outflows from prime funds. In addition, as with any mutual fund, these funds can choose to institute liquidity fees and redemption gates, although they are not common.

   Demand for government funds may depress government yields to create a bigger gap between U.S. government and non-government money market yields. Estimates of outflows from institutional prime funds range from $150 billion to $500 billion, we believe much of which may flow to government funds.[3] Investors need only look to the European experience, with the recent dismal yields of one-month negative yield in the face of ECB easing and regulation-driven demand for high quality assets by financial institutions, to understand that negative yields are a real possibility. In addition, we believe any counterbalancing trend in the form of rising interest rates may be modest and protracted. While the Federal Reserve has indicated its intention to raise interest rates, very possibly in 2015, they also seek to raise rates modestly and may pause in this effort, should data disappoint. U.S. government yields may remain at historical lows for the next few years.

2) **Bank Certificates of Deposit.** Certain investors believe that the CD market offers a compelling alternative to the other options being discussed. With higher yields and a range of maturities (that can mimic money market maturities) from 21 days to 9 months, they offer a viable option, relative to a floating rate prime fund with potential liquidity fees and redemption gates. CDs typically offer a fixed rate of return if held to maturity and are generally insured by the FDIC or another government agency. Investors should be aware, however, that any exposure beyond the $250,000 FDIC guarantee subjects them to the credit risk of the issuing institution. The higher the yield offered by the CDs, the greater the credit risk of the issuer. Currently, CD yields of up to 9-month maturities, offered by high quality, A-rated U.S. bank are 0.04%, modestly higher than current government fund yields.[4] In addition, investors seeking early withdrawal of funds from the CD may be subject to prepayment penalties. Further, if Federal Reserve rules and Basel III rules[5] effectively raise capital requirements for banks, driving banks to limit the type of deposits they accept, banks may offer less attractive yields on those deposits they will take on to compensate for higher capital costs.

3) **Prime Money Market Funds.** Investors may opt to remain invested in prime funds, taking on the risk of the floating rate NAV, as well as the potential risk of higher liquidity fees and redemption gates. The obvious drawback of prime funds is their greater potential for volatility as compared to government money market funds; however, investors may receive somewhat higher potential yield in an investment with the maturity profile of a money market fund. In addition, in times of stress, redemption fees could become significant – should weekly liquid assets fall below 30%, a prime money market fund may charge a redemption fee of up to 2% or halt shareholder redemptions for 10 days. If weekly liquid assets fall below 10%, the fund must charge a 1% redemption fee if it is determined to be in the best interest of the fund.

4) **Customized Prime Funds with Floating NAV.** Certain managers have proposed new prime funds that would be designed to offer potentially higher yields, but help reduce volatility by limiting the maturity of investments, ranging from a 7-day limit to a 60-day limit. In theory, this type of new fund might hold very short maturity assets (e.g., 7 days) but seek to limit both interest rate and credit risk. (Indeed, certain managers proposed that the SEC exempt prime funds with securities with maturities of 60 days or less from the floating NAV mandate, which the SEC rejected.) While such limits may seem appealing on the surface, there could be two potential problems. Shorter maturity prime funds may offer even lower yields, assuming a term premium continues to exist. More important, available supply may be even more constrained relative to an already declining supply of 2a-7 eligible assets, meaning yields may experience further downward pressure in a smaller, less liquid universe. (Rule 2a-7 of the 1940 Investment Company Act includes restrictions around credit quality, maturity and liquidity as well as surrounding ongoing operations and transparency to investors.)

[3] JP Morgan, Dec 2, 2014 “Where the Rubber Meets the Road”. [4] Source: CD rates represents average CD rates for up to 270 days quoted by fine A-rated banks: - JP Morgan, Bank of America, PNC, US Bank and Wells Fargo as of 9/30/15. [5] **Basel III rules** refer to a comprehensive set of reform measures designed to improve the regulation, supervision and risk management within the banking sector. The Basel Committee on Banking Supervision published the first version of Basel III in late 2009, giving banks approximately three years to satisfy all requirements. Largely in response to the credit crisis, banks are required to maintain proper leverage ratios and meet certain capital requirements.

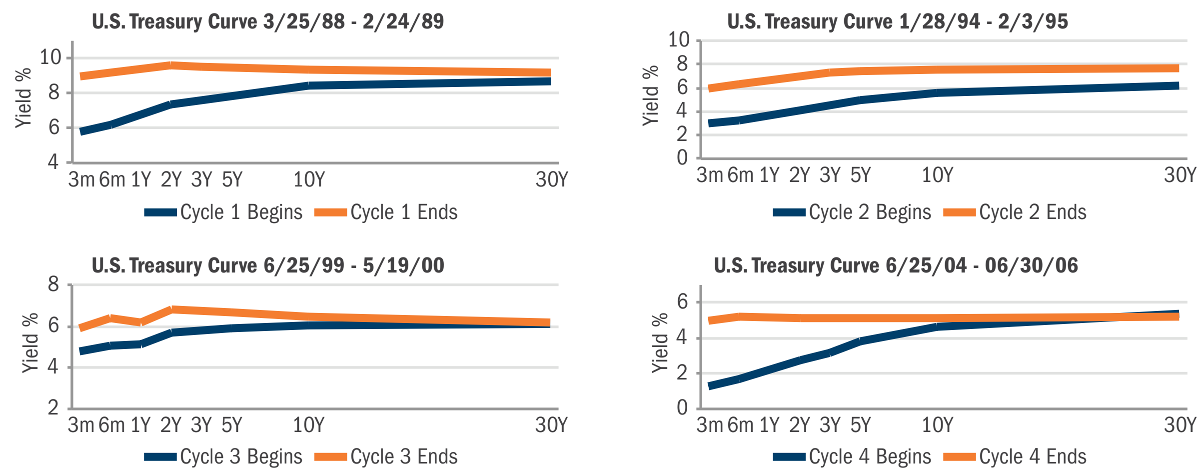
5) **Ultra-Short and Short Duration Funds (with floating NAVs).**

Ultra-Short Funds. Depending on the risk tolerance of the investor, an option for many investors may be to move a portion of short-term assets into ultra-short duration funds. Typically benchmarked against indices with maturities of up to one year, these funds currently offer a potentially significantly higher 0.81% yield, with a 0.47 year duration.[6] They seek a higher yield by investing in a wider opportunity set than the 2a-7 money market universe, taking on additional credit and/or duration risk. As a result, they are exposed to greater volatility than a typical prime money market fund, but they can also benefit from a broader investment universe, which may not be as vulnerable to potential negative effects of increasingly supply-constrained 2a-7 assets. Managers of these funds, moreover, may have long-term experience protecting against downside risk in a floating NAV environment, managing these funds as a complement to money market funds. As stated earlier, neither ultra-short nor short duration funds have mandatory redemption fees or gates.

Short Duration Funds. Short duration funds may also compete for money market assets and offer potential yields of 1.52%, significantly higher than those of the average money market or ultra-short bond fund.[6] The typical short duration bond fund may not, however, represent an appropriate complement to cash or substitute for a liquid asset allocation, particularly given the potential for rising interest rates. Often benchmarked against an index such as the Barclays U.S. Government/Credit 1-3 Year Index[6] (the most commonly used benchmark in the Morningstar Short Duration Category), these funds may take on significantly more duration risk than a money market or ultra-short duration option: the current average duration of the Morningstar Short-Term Bond Category universe is 2.11 years.[6] This duration exposure may be of particular concern in the current environment, in which the short-term end of the yield curve has been anchored by the ZIRP[7] (zero interest rate policy) of the Federal Reserve. Should economic growth surprise to the upside, short yields may be particularly vulnerable to a sell-off. In such a circumstance, the market to price in a quicker increase in the Fed Funds rate by the Federal Reserve, which, as the chart below indicates, has typically manifested itself via higher 2- and 5-year Treasury rates.

Yield curve charts show yields of U.S. Treasuries across key maturities, from three-month T-bills through 30-year Treasuries. These yields have changed in response to a range of factors, most notably to monetary policy and interest rate targets of the Federal Reserve, and to views about economic growth and inflation. The charts below depict the response of yield curves to periods in which the Federal Reserve has raised the target Federal Funds rate. The chart shows that in the last four tightening cycles, shorter-term Treasury yields rose more than longer-term Treasury yields. There is no assurance that this response will continue.

Tightening Cycles of the Federal Reserve and the Flattening of the Yield Curve



Source: Bloomberg

[6] Based on the Morningstar Ultrashort and Short Duration category average respectively as of 9/30/15. [7] A **zero interest rate policy** or **zirp** is a route taken by a central bank to keep the base rate at zero per cent in an attempt to stimulate demand in the economy by making the supply of money cheaper.

The views expressed in this presentation are those of Pioneer, and are subject to change at any time. These views should not be relied upon as investment advice, as securities recommendations, or as an indication of trading intent on behalf of any of Pioneer's strategies.

Statistical Summary of Options

The chart below sets forth a quantitative comparison of the alternatives discussed in this piece.

Category Averages*	Distribution Yield (%) 9/30/15	Effective Duration	Total Return 1-Year (%)	Total Return Annualized 3-Year (%)	Standard Deviation 3-Year	Sharpe Ratio	Duration Risk
Institutional Government Money Market	0.03	NA	0.01	0.01	0.00	NA	NA
Institutional Prime Money Market	0.05	NA	0.03	0.03	0.01	NA	NA
A-Rated Bank CDs (Up to 270 days)**	0.04**	Varies	NA	NA	NA	NA	NA
Ultrashort Bond	0.81	0.47	0.06	0.40	0.42	0.62	0.72
Short Term Bond	1.48	2.00	0.54	0.78	1.19	0.63	0.69

	1-Year			3-Year		
Morningstar Category Averages	**Sortino Ratio (Annualized)**	**Down Capture Ratio**	**Up Capture Ratio**	**Sortino Ratio (Annualized)**	**Down Capture Ratio**	**Up Capture Ratio**
Ultrashort Bond	2.15	20.69	10.44	1.72	24.81	39.29
Short Term Bond	1.58	172.44	83.82	1.17	243.15	141.51

Source: Pioneer Investments, Lipper, Morningstar and ICI. **Data represents past performance, which does not guarantee future results.**

* **Institutional Government and Prime Money Market data is provided by Lipper. Ultrashort and Short Term Bond data is provided by Morningstar.** Category averages encompass the returns of all funds within that particular category. They are expressed on a total return basis, which would include reinvestment of dividends. Data shown is calculated relative to the Barclays U.S. Government/Credit 1-3 Year Index. **Distribution Yield** is reported as an annualized yield and calculated as follows: (prior month Distribution rate times 12 divided by NAV or POP). The **Distribution Rate** reflects the income dividends scheduled to be paid out to shareholders during the previous month. The **Sortino Ratio** measures excess return per unit of risk based on downside semi-variance, instead of total risk (standard deviation) used by the Sharpe Ratio. Because the Sortino Ratio takes into account only the downside size and frequency of returns, it measures the reward to negative volatility trade-off.

** CD Rate represents average CD rate for up to 270 days quoted by five A-rated Banks: Bank of America, JP Morgan, PNC Bank, US Bank, and Wells Fargo.

Before investing, consider the product's investment objectives, risks, charges and expenses. Contact your advisor or Pioneer Investments for a prospectus or a summary prospectus containing this information. Read it carefully.