# Dissecting Prime Money Fund Holdings

## How Credit Migrations Impact Cash Investors

**Abstract:**
Credit risks in prime money market funds stem from investments in non-government securities. In reviewing credit concentrations in a group of AAA-rated prime funds representing 50% of industry prime fund assets, we found that fund managers improved credit and liquidity positions by boosting investments in U.S. Treasuries and repurchase agreements. As of December 31, 2010, 12 European bank names occupied the list of Top 20 credits, while the U.S. Treasury claimed the top spot. When days to maturity are considered, concentrations in the Top 20 list shifted to Canadian and Australian banks and U.S. government issues, although French and U.K. bank exposures remained substantial. By the same measure, Spanish and Italian banks no longer represented major credits in fund holdings, and three French banks consistently ranked high among major non-U.S. financial issuers.

---

### Introduction

Prime money market funds got their names from a regulatory mandate that limits most of their investments to securities of "prime" quality. One may draw two immediate conclusions about prime funds. First, they are designed to buy and hold mostly non-government securities, or credits; and second, the credits should be top-notch names representing minimal risk to investors. However, one day in September 2008, fund investors found out that not all prime funds lived up to their namesake and not all "prime-rated" credits were top-notch credits.

Here in the winter of 2011, almost 900 days after the Reserve Primary Fund debacle, investors' guarded skepticism towards prime money funds does not seem to have subsided. The twists and turns of the U.S. mortgage market and the ever present Eurozone sovereign debt crisis have only reinforced investors' anxiety about a possible repeat of the Reserve episode.

Are investors' worries justified? Do funds have a better handle today on picking credits that minimize investor concerns? Are investments living up to their "prime" distinctions? These are important questions with no easy answers. Instead of imposing judgment on how fund managers manage credit risks, we thought it would be helpful to look at the top credit exposures in large prime funds and how those exposures shifted between December 2009 and December 2010. Since large prime institutional funds represent the largest and arguably the most sophisticated institutional cash investors, our findings may provide useful insight to other liquidity investors, including corporations, government pools, and security lenders.

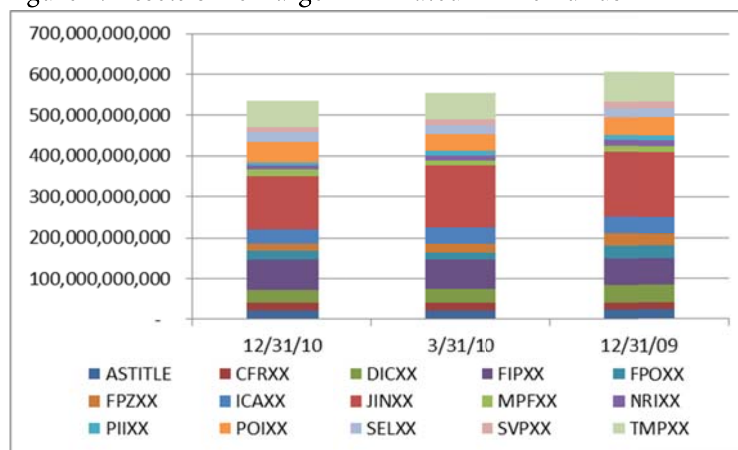
Published: February 1, 2011

Lance Pan, CFA
Director of Investment Research
Main: 617.630.8100
Research: 617.244.9466
lpan@capitaladvisors.com

**The Group of 15 AAA-rated Prime Institutional Money Market Funds**

In performing our analysis, we tapped into our FundIQ database of 15 AAA-rated prime funds, each of which was picked from the 15 largest families of prime institutional assets[1]. As of December 31, 2010, the combined $535.3 billion in assets under management in these funds represented roughly 50% of the $1.1 trillion institutional money market fund market (See Figure 1)[2]. This figure represented a decline of 12% from $605 billion in December 2009. Total assets from their respective fund families, at $2.1 trillion, were 76% of the $2.8 trillion U.S. money fund assets[3]. For comparison purposes, we also included fund data from 3/31/2010, the month-end just prior to the outbreak of the Greek sovereign debt crisis. We combined portfolio holdings of these funds so that the results are par value weighted, and are more heavily influenced by investments in the larger funds.

Figure 1: Assets of 15 Large AAA-rated Prime Funds




Data in all tables and figures come from fund holdings on company websites as compiled through FundIQ.

**Sector Allocations of Fund Portfolios**

At first glance (Figure 2), there does not appear to be major sector allocation changes over the past year. As of December 31, 2010, foreign financial debt (FORFIN) remained the largest sector at 52% of assets, compared to 53.9% a year earlier. The second largest sector was repurchase agreements (REPO), which increased to 10.5% from 8.1% in 2009. Third was asset-backed commercial paper (ABCP), whose presence slid to 8.8% from 10.8% a year earlier. The rest was comprised of time deposits (7.0%), GSE debt (6.7%), U.S. financial debt (4.2%), municipal debt (3.7%), Treasury debt (3.4%), industrial debt (2.0%) and debt from sovereign and supranational entities (1.7%).

The migration trend became more striking when we included the month-end holdings from March 31, 2010 and looked only at the changes in sector allocation decisions. As Figure 3 indicates, the group shed 4.7% in foreign financial debt since March and 1.9% since December 2009. Exposures to quasi-government (SOV) issues were also down. To us, this shift was an indication that fund managers responded to market concerns about

European banks' exposures to southern Europe. ABCP was the sector with the second largest reduction, at 2.1% year over year, which coincided with regulatory changes in these securities and the programs' reduced utility to their bank administrators.

The increased liquidity requirement resulting from the new SEC rule 2a-7 may be the reason behind the higher use of repos and Treasury securities. Concentration in tax-exempt securities also increased, possibly the result of higher yield opportunities in a depressed and otherwise unrelated market. We view this phenomenon as opportunistic and temporary, and will be concerned if the concentration rises dramatically.

Figure 2: Sector Allocations of Funds

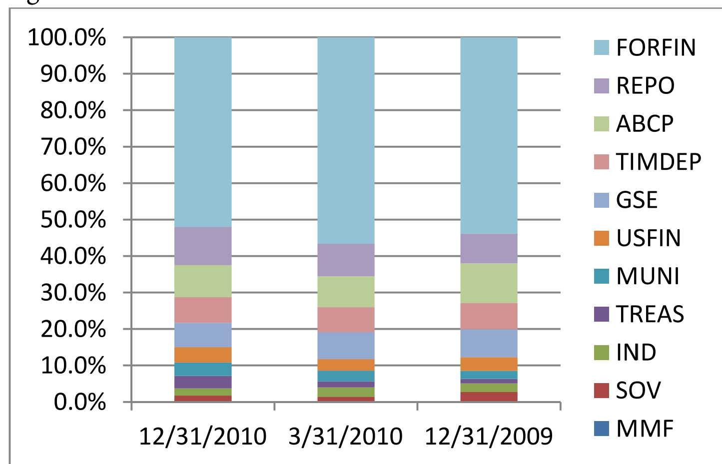
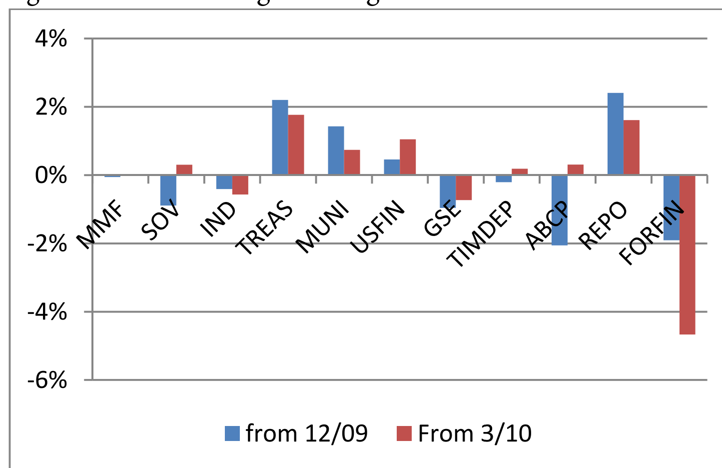



Figure 3: Sector Changes through 12/31/2010




**Top 20 Issuers by Par Value**

Table 1 below shows the 20 largest issuers held in our prime fund group by par value. U.S. Treasury claimed the top spot at December 31, 2010, a rare distinction in the history of prime funds. Its ranking moved up from the 17th place in March, apparently the result of

bolstering portfolio liquidity, as Treasuries are counted towards daily liquidity requirements regardless of maturities.

As of December 31, 2010, the Top 20 list was dominated by twelve European bank names, followed by three U.S. GSEs (Fannie, Freddie, FHLB), two U.S. banks (Bank of America and JPMorgan), a Japanese bank (Mitsubishi), and a Canadian bank (BNS).

It is interesting to note that BBVA, the Spanish banking giant, and Unicredit, the largest Italian bank by market value, were no longer on the list after the outbreak of the Greek debt crisis. Citigroup, a ratings downgrade candidate, and Nordea, a Scandinavian banking concern, also fell out of favor with fund managers. The generic "bank" issuer, assigned to unidentified credits in our database, no longer appeared after fund companies conformed to the more standardized monthly statements in October 2010.

Table 1: Top Issuers by Par Value

| | 12/31/2010 | | 3/31/2010 | | 12/31/2009 | |
|---|---|---|---|---|---|---|
| **NAME** | **%** | **Rank** | **%** | **Rank** | **%** | **Rank** |
| US Treasury | 4.2% | 1 | 2.2% | 17 | 1.9% | 17 |
| Rabobank | 3.8% | 2 | 3.9% | 3 | 3.5% | 7 |
| Barclays | 3.7% | 3 | 3.6% | 4 | 3.4% | 9 |
| Calyon | 3.7% | 4 | 4.1% | 2 | 3.5% | 6 |
| BNP Paribas | 3.7% | 5 | 4.2% | 1 | 4.4% | 1 |
| Deutsche Bank | 3.6% | 6 | 2.2% | 15 | 1.7% | 20 |
| Bank of America | 3.5% | 7 | 3.3% | 7 | 3.5% | 8 |
| Societe Generale | 3.4% | 8 | 3.4% | 6 | 3.6% | 3 |
| Llyolds Bank | 3.0% | 9 | 3.1% | 8 | 3.3% | 10 |
| Royal Bank of Scotlan | 2.9% | 10 | 3.6% | 5 | 3.9% | 2 |
| Mitsubishi UFJ | 2.8% | 11 | 2.9% | 10 | 2.4% | 13 |
| Credit Suisse | 2.8% | 12 | | | | |
| JPMorgan Chase | 2.6% | 13 | 1.8% | 20 | 1.7% | 19 |
| FNMA | 2.5% | 14 | | | 2.0% | 15 |
| ING | 2.4% | 15 | 1.9% | 19 | 2.1% | 14 |
| UBS | 2.3% | 16 | | | | |
| FHLMC | 2.2% | 17 | 2.6% | 11 | 1.9% | 18 |
| FHLB | 2.1% | 18 | 2.9% | 9 | 3.5% | 4 |
| Bank of Nova Scotia | 2.1% | 19 | | | | |
| Natixis | 2.0% | 20 | 2.2% | 16 | | |
| **Total** | **59.1%** | | | | | |

| **Names Not in Top 20 as of December 2010** | | | | |
|---|---|---|---|---|
| | **3/31/2010** | | **12/31/2009** | |
| Name | % | Rank | % | Rank |
| BBVA | 2.5% | 12 | 2.8% | 12 |
| Citigroup | 2.4% | 13 | 2.9% | 11 |
| Bank | 2.3% | 14 | 3.5% | 5 |
| Unicredito | 2.0% | 18 | | |
| NORDEA | | | 2.0% | 16 |

## Top 20 Issuers by Par Value and Maturity

Looking at credit exposures simply by proportional par values in a portfolio is an intuitive yet inaccurate measure of risk. One needs to take into account the maturity effect of credit concentrations. For investors of hold-to-maturity portfolios, a bond with two months remaining before maturity represents twice as much credit risk as one of the same value but with one month left to mature. Taking this “contribution to maturity” approach, or weighting credits proportionally by par value and days to maturity, we arrived at a different, and more telling, picture of top money fund exposures.

As Table 2 shows, the top names in the fund group in December 2010 were the type of credits with which fund managers felt most comfortable owning. Treasuries and GSEs commanded four of the top five positions on this new list. Rabobank, a Dutch cooperative bank in agricultural lending with Aaa/AAA credit ratings, ranked number four. A group of Canadian (RBC, BNS, BMO) and Australian (Westpac, NBA, CBA) banks are now highly ranked on the list. In our opinion, high concentration in banks from Canada and Australia was an apparent nod by fund managers to strong economic fundamentals in those countries and the banks’ relatively low losses during the U.S. subprime mortgage crisis. The three large French banks (BNP Paribas, Societe Generale, and Calyon) continued to be in the top spots. The rest of the Top 20 names were made up by three British banks (Barclays, HSBC, and Lloyds), Deutsche Bank of Germany, Mitsubishi Bank of Japan, and JPMorgan Chase.

Table 2: Top Issuers by Par Value and Maturity

| | 12/31/2010 | | 3/31/2010 | | 12/31/2009 | |
|---|---|---|---|---|---|---|
| NAME | % | Rank | % | Rank | % | Rank |
| FNMA | 11.4% | 1 | 2.78% | 9 | 3.1% | 9 |
| FHLB | 7.5% | 2 | 9.33% | 1 | 8.4% | 1 |
| US Treasury | 7.5% | 3 | 3.99% | 5 | 4.5% | 4 |
| Rabobank | 6.0% | 4 | 6.54% | 3 | 5.0% | 3 |
| FHLMC | 5.5% | 5 | 8.25% | 2 | 7.8% | 2 |
| WESTPAC | 4.1% | 6 | 2.94% | 8 | 3.4% | 8 |
| BNP Paribas | 3.6% | 7 | 3.46% | 6 | 3.8% | 6 |
| Royal Bank of Canada | 3.4% | 8 | | | | |
| Barclays | 3.1% | 9 | 2.98% | 7 | 3.1% | 10 |
| Calyon | 2.6% | 10 | 4.07% | 4 | 4.1% | 5 |
| Bank of Nova Scotia | 2.4% | 11 | 2.48% | 11 | 1.7% | 14 |
| Societe Generale | 2.3% | 12 | | | 3.0% | 11 |
| HSBC | 2.1% | 13 | 1.72% | 18 | | |
| Deutsche Bank | 2.1% | 14 | | | | |
| Mitsubishi UFJ | 2.0% | 15 | 1.91% | 13 | | |
| JPMorgan Chase | 2.0% | 16 | 1.76% | 16 | 1.5% | 19 |
| Bank of Montreal | 1.9% | 17 | | | | |
| Nat Bank of Australia | 1.9% | 18 | | | 1.6% | 16 |
| Llyolds Bank | 1.7% | 19 | | | | |
| CBA | 1.6% | 20 | 2.22% | 12 | 2.7% | 12 |
| Grand Total | 74.8% | | | | | |

| Names not in Top 20 as of December 2010 | | | | |
|---|---|---|---|---|
| | 3/31/2010 | | 12/31/2009 | |
| BBVA | 2.76% | 10 | 3.77% | 7 |
| RBS | 1.89% | 14 | 2.68% | 13 |
| SANTAN | 1.77% | 15 | | |
| ING | 1.73% | 17 | 1.66% | 15 |
| CIC | 1.72% | 19 | | |
| NRW | 1.68% | 20 | | |
| BAC | | | 1.56% | 17 |
| C | | | 1.53% | 18 |
| GE | | | 1.43% | 20 |

Again, the names that fell out of Top 20 told a compelling story of fund managers rotating out of weaker banking credits as the year progressed. These included the two Spanish banking giants (BBVA and Santander), Royal Bank of Scotland, the Dutch firm ING, a regional French lender (CIC), and a German state savings bank (NRW). Bank of America and Citigroup, which face the risk of falling below the top ratings tier (A-1/P-1), also vanished from view. General Electric, which used to rely heavily on short-term funding, had cut its commercial paper program by more than half, which may explain their exodus from the top 20 list.

**Top 5 Unsecured Non-U.S. Financial Issuers**

To cap off our study of credit concentrations in prime fund portfolios, we reviewed specifically the Top 5 unsecured non-U.S. financial issuers by par value. Our Top 20 list counted repo dealers and ABCP liquidity providers towards their ultimate financial parents. The Top 5 names, on the other hand, included only unsecured credit risks. Given the lingering concerns with European banks' exposures to southern Europe, we thought this could give us a different dimension of risk concentration in prime funds.

Figure 4: Top 5 Unsecured Foreign Financial Issuers 12/09-12/10

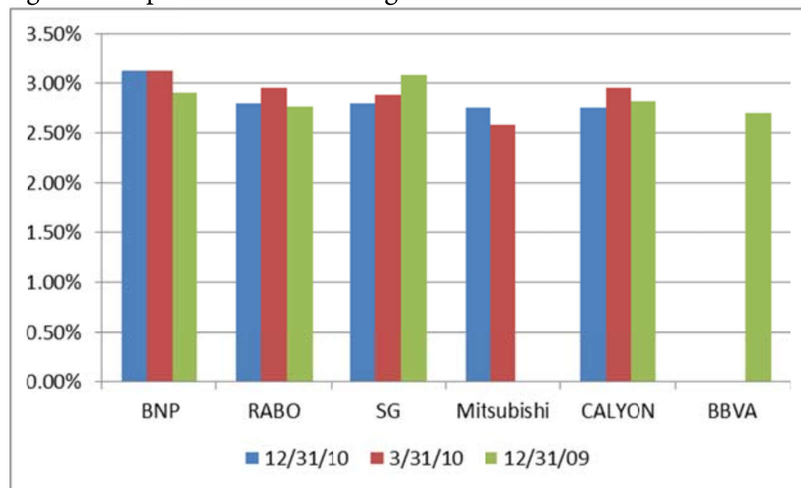


Figure 4 indicates that the fund group's top unsecured foreign financial exposures were rather consistent. Total exposures dropped from 14.3% in December 2009 to 11.5% in March 2010 before growing back to 14.2% in December 2010. With the Spanish bank BBVA replaced by a Japanese bank Mitsubishi, the fund group's concentration in the three French banks (BNP Paribas, Societe Generale and Calyon) and the Dutch lender Rabobank were relatively consistent in the range of 2.5% to 3.1% per name.

**Conclusion – Prime funds Remain a Play on Non-U.S. Financial Debt**

In our brief study of prime money fund holdings between December 2009 and December 2010, we found evidence that fund managers improved portfolio liquidity by increasing exposure to repurchase agreements and U.S Treasury securities. Concentration in foreign financial issuers dropped, reflecting the market's concerns about the Eurozone debt crisis. In looking at specific credits in the portfolios, we found prime funds as a whole remain a major underwriting syndicate to financial borrowers, or more specifically non-U.S. financial borrowers. When days to maturity are factored in, concentrations shifted more towards U.S. government securities and banks in more economically vibrant countries. Credit concentration to European financials appear to center on French and U.K. banks, as funds rid most of their exposures to Spanish and Italian banks. When only unsecured credit risks are considered, three French banks and Rabobank consistently ranked in the top 5 positions.

We should note that our analysis focuses on fund holdings at three specific points in time. The observations may not accurately reflect fund managers' current credit opinions, since the availability of the debt issues, portfolio liquidity and maturity construction, and the relatively high turnover rates of short-term securities all play important roles in the credit characteristics of a specific portfolio. Lastly, our assumption of fund assets as part of a giant asset pool may skew the picture towards the largest funds. Weighting the portfolios equally and presenting concentrations individually may yield more insightful data, which could be the subject of a future publication.

---

[1] Capital Advisors Group rates 15 of the largest AAA-rated prime institutional money market funds. These funds are not necessarily the largest funds within this category rather they are funds that we believe are representative of the AAA-rated institutional prime fund market.

| TICKER | RATING | NAME |
|---|---|---|
| N/A | AAA/Aaa | AIM STIT Liquid Assets - Institutional |
| TMPXX | AAA/Aaa | BlackRock TempFund - Institutional |
| NRIXX | AAA/Aaa | Columbia MM Reserves - Institutional |
| DICXX | AAA/Aaa | Dreyfus Cash Management - Institutional Shares |
| ICAXX | AAA/Aaa | DWS MM Series - Institutional |
| POIXX | AAA/Aaa | Federated Prime Obligations - Institutional Shares |
| FIPXX | AAA/Aaa | Fidelity Institutional Prime Money Market Portfolio |

| | | |
|---|---|---|
| FPZXX | AAA/Aaa | First American Prime Obligations Class Z |
| FPOXX | AAA/Aaa | Goldman Sachs Financial Square Prime Obligations - Institutional |
| JINXX | AAA/Aaa | JPMorgan Prime Money Market Institutional |
| MPFXX | AAA/Aaa | Morgan Stanley Institutional Liquid Prime Fund |
| SVPXX | AAA/Aaa | SSGA Prime Money Market Fund |
| SELXX | AAA/Aaa | UBS Select Prime Money Market - Institutional |
| PIIXX | AAA/Aaa | Wells Fargo Advantage Prime Investor MM - Institutional |
| CFRXX | AAA/Aaa | Western Asset Citi Institutional Cash Reserve |

[2] Individual fund holdings were reported by the respective fund companies on public websites. Industry data came from iMoneyNet Analyzer as of 12/31/2010.
[3] Ibid.

Any projections, forecasts and estimates, including without limitation any statement using "expect" or "believe" or any variation of either term or a similar term, contained herein are forward-looking statements and are based upon certain current assumptions, beliefs and expectations that Capital Advisors Group ( "CAG", "we" or "us") considers reasonable or that the applicable third parties have identified as such. Forward-looking statements are necessarily speculative in nature, and it can be expected that some or all of the assumptions or beliefs underlying the forward-looking statements will not materialize or will vary significantly from actual results or outcomes. Some important factors that could cause actual results or outcomes to differ materially from those in any forward-looking statements include, among others, changes in interest rates and general economic conditions in the U.S. and globally, changes in the liquidity available in the market, change and volatility in the value of the U.S. dollar, market volatility and distressed credit markets, and other market, financial or legal uncertainties. Consequently, the inclusion of forward-looking statements herein should not be regarded as a representation by CAG or any other person or entity of the outcomes or results that will be achieved by following any recommendations contained herein. While the forward-looking statements in this report reflect estimates, expectations and beliefs, they are not guarantees of future performance or outcomes. CAG has no obligation to update or otherwise revise any forward-looking statements, including any revisions to reflect changes in economic conditions or other circumstances arising after the date hereof or to reflect the occurrence of events (whether anticipated or unanticipated), even if the underlying assumptions do not come to fruition. Opinions expressed herein are subject to change without notice and do not necessarily take into account the particular investment objectives, financial situations, or particular needs of all investors. This report is intended for informational purposes only and should not be construed as a solicitation or offer with respect to the purchase or sale of any security. Further, certain information set forth above is based solely upon one or more third-party sources. No assurance can be given as to the accuracy of such third-party information. CAG assumes no responsibility for investigating, verifying or updating any information reported from any source other than CAG. Photocopying or redistributing this report in any form is strictly prohibited. This report is a confidential document and may not be provided or disclosed to any other parties than the intended recipient(s) without the prior written consent of CAG.