

## Strategy

November 16, 2017

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## First Annual Checkup on Reformed Institutional Prime Funds

### Abstract

*In the year since the SEC instituted new rules governing money market mutual funds, institutional prime funds have recaptured some lost ground, although balances still lag government funds. Fund characteristics returned to pre-reform levels with wide dispersions and concentrated exposures to non-US financial issuers. Asset-backed instruments also increased. While prime fund yields benefitted from higher fed funds rates, the current prime-to-government yield spread may be insufficient to bring back most investors.*

*We think that structural changes have reduced prime funds' appeal to a subset of previous shareholders, with their main utility changed from overnight, stable value deposit equivalents to return-oriented reserve instruments. We are optimistic that prime assets will continue to grow, but are likely to be in the shadow of government funds for some time. Investors with slightly longer time horizons and tolerance for interest rate volatility may consider portfolios of separately managed securities as suitable alternatives.*

### Introduction

It has been over a year since the SEC's revised rules governing money market mutual funds went into effect on October 14, 2016. The requirements to float net asset values (NAVs) and impose redemption restrictions resulted in large scale asset migration from institutional prime funds to government funds. As the regulatory dust settled and the yield environment improved, there have been signs of awakened interest in institutional prime funds. In fact, group assets increased 45% between October 31, 2016 and October 31, 2017<sup>1</sup>. The addition of approximately \$56 billion outpaced the decline of \$33 billion in institutional government funds over the same period.

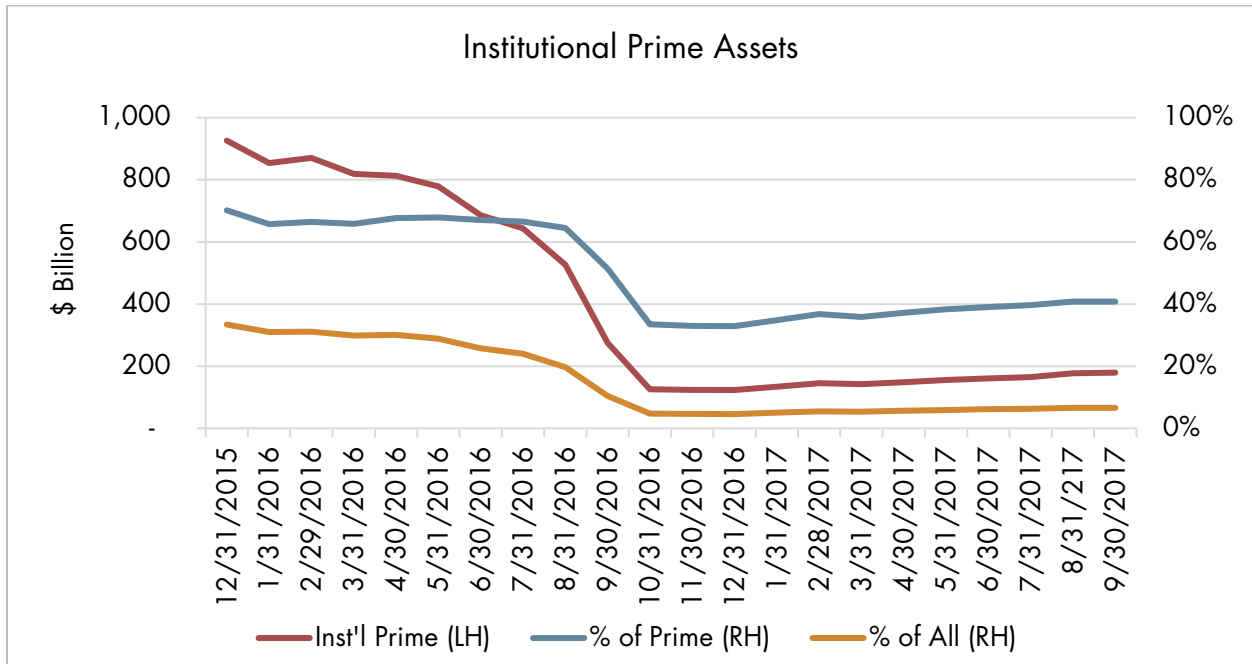
At the one-year anniversary of the SEC regulatory changeover, we take a metaphorical temperature on institutional prime funds and look for insight into their growth potential.

### Prime Assets Steadily Climbed

In studying asset migration, we start with December 31, 2015 to capture early stage outflows from prime funds prior to the rules becoming effective.

<sup>1</sup> Based on monthly iMoneyNet Domestic Market Share reports.

Figure 1: Institutional Prime Relative to Prime and Overall MMF Assets

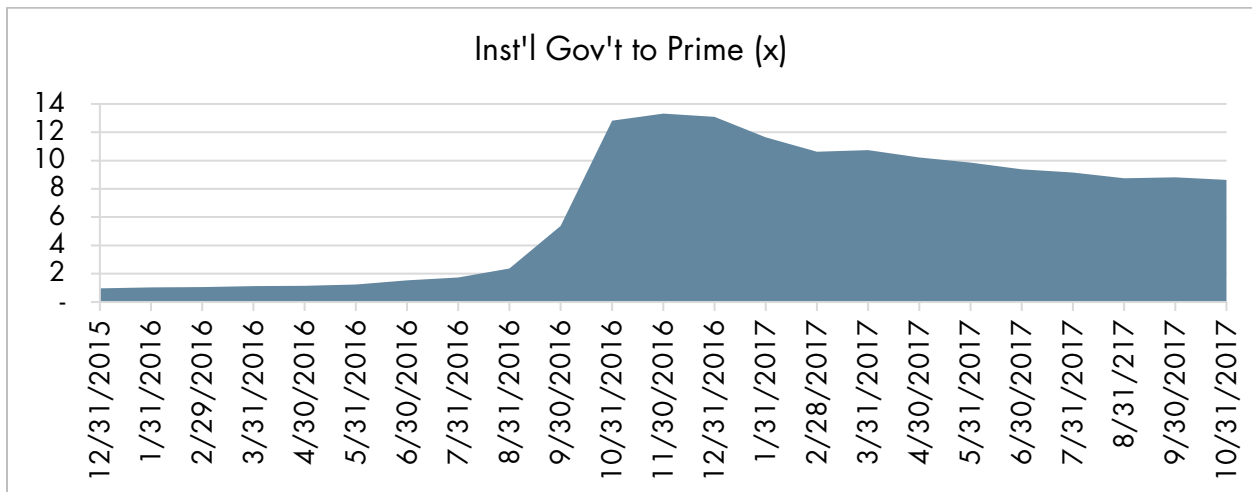


Source: iMoneyNet Domestic Market Share

Figure 1 captures the dramatic \$800 billion (86%) decline in institutional prime assets between December 2015 and October 2016. Since then, institutional prime assets grew in absolute terms as well as in proportion to overall prime assets and the money market fund (MMF) industry. The growth rate of 45% from a smaller base excited some market participants, while the \$26 billion in net growth (prime – government) indicates new cash flowing in the direction of prime funds.

Of note, if the regulators’ goal was to reduce systemic exposure of the financial system to institutional prime funds, they appear to have achieved it. The funds used to represent 33% of all money assets, but are now at merely 7% as indicated in Figure 1.

Figure 2: Government Funds Remain the Favorite



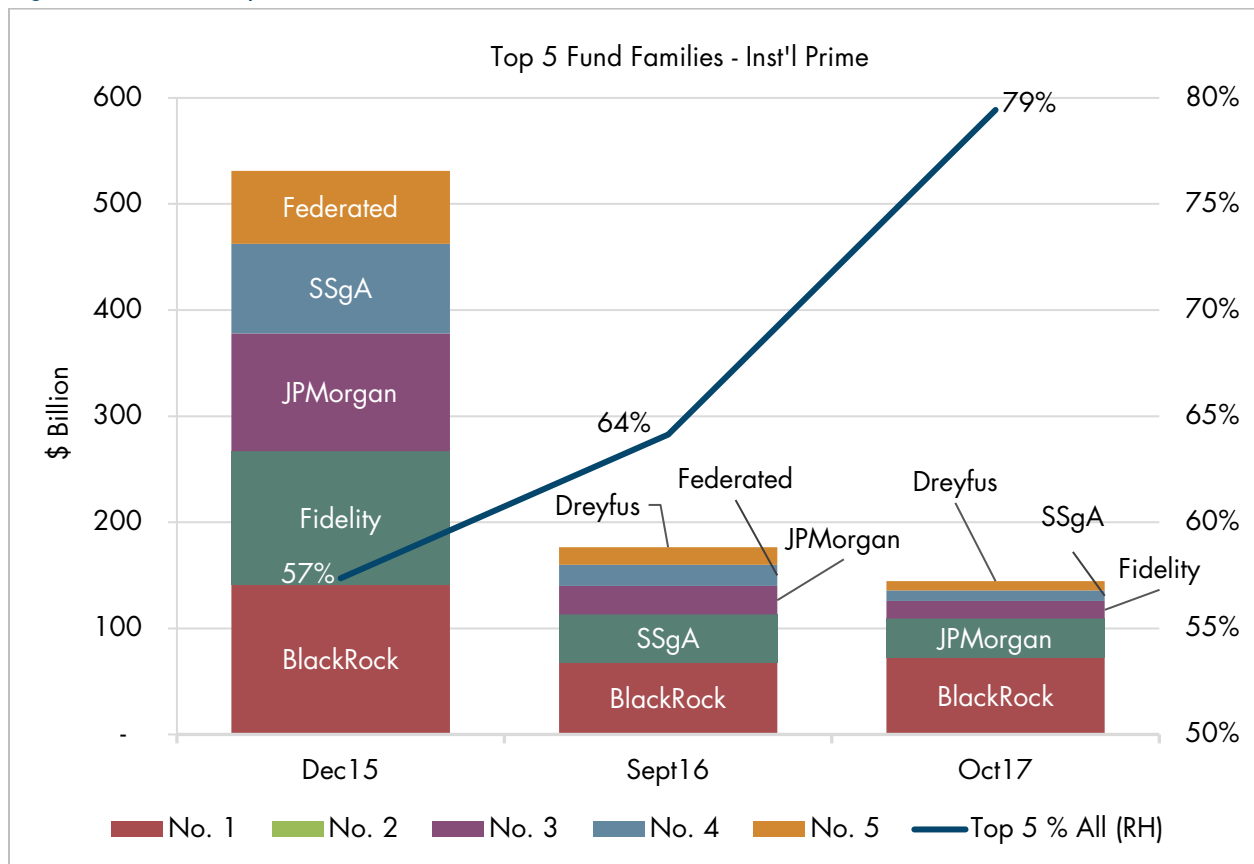
Source: iMoneyNet Domestic Market Share

In the first half of 2016, the government to prime asset ratio stayed close to 1:1. It started to climb in the months leading up to the reform and topped out at 13:1 last November. For much of 2017, the ratio declined steadily and settled below 9:1. This is a useful gauge for investor preferences and it incorporates both inter-class transfers and overall asset movement. Although the favorable trend may continue for prime funds, the probability of returning the ratio to 1:1 may be some time away.

**Industry Concentration More Pronounced**

As widely reported, shareholder preferences and fund family decisions resulted in uneven asset losses among prime funds. While fund families continue to woo institutional investors back to prime, concentration among industry players and shareholder concentration within funds appear to have worsened.

Figure 3: Fund Family Concentration



Source: iMoneyNet Domestic Market Share

Figure 3 indicates that the top five fund families sponsoring institutional prime funds previously managed \$531 billion in combined assets, or 57% of institutional prime. The combined assets dropped to \$176 billion in September 2016 just prior to the reform, and further to \$144 billion at the end of October 2017.

Due to uneven asset outflows, however, the top five families' collective market share rose from 57% to 64% and 79% as a percentage of overall institutional prime during the same time period. This level of concentration is a significant factor when shareholders evaluate concentration risk and exposure to fund sponsors. Likewise, reduced fund sizes also limit shareholder participation by institutional cash investors with large balances, particularly those who intend not to exceed 5% of any fund. Shareholder level information, unfortunately, is not

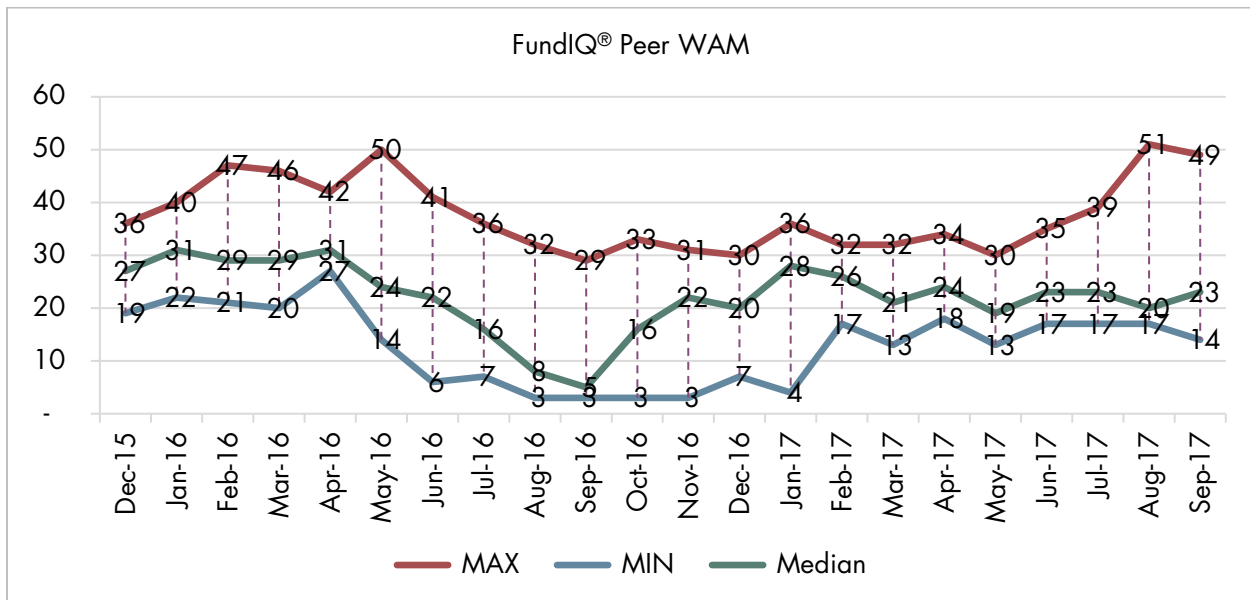
available to the public which continues to present challenges for investors attempting to ascertain shared liquidity risk.

**Diverging Fund Characteristics**

**WAMs Remain Cautiously Short:** In the months leading up to October 2016, many prime funds shortened the weighted average maturity (WAM) of their portfolios to prepare for anticipated fund outflows. We observed this trend in our FundIQ® Peer Group funds, a group of 13 AAA-rated large institutional prime funds. In **Figure 4**, the WAM for the median fund was around 30 days in the first half of 2016 and dropped to 5 days in September. It grew to 28 days in January 2017 and settled at 23 days in September 2017. As new MMF rules allow up to 60 days in WAM, the median fund’s cautious posture reflects the Peer Group’s conservative risk measures to keep the floating NAVs close to \$1.0000 in a rising interest rate environment.

**Figure 4** also shows considerable WAM dispersion among Peer Group funds both before and after the reform. For example, the WAM gap between the longest and the shortest funds was 26 days in September 2016. It then narrowed to 15-17 days early this year before expanding again to 35 days in September 2017. The re-widening of the WAM gap may indicate differences in interest rate risk management practices among the funds.

**Figure 4: WAM Dispersion**

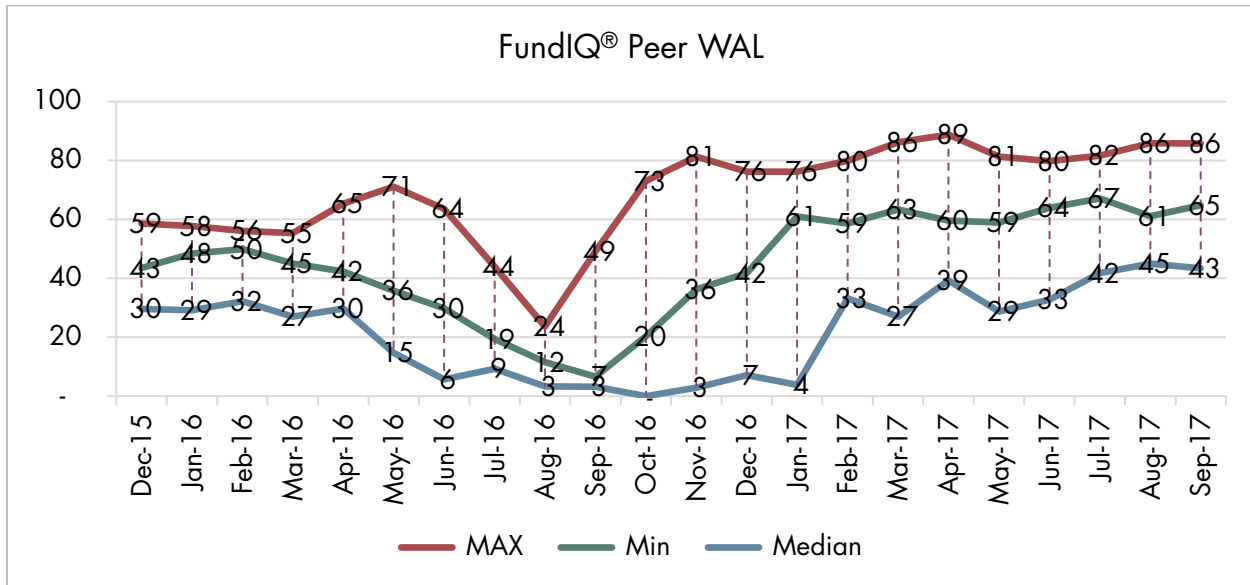


Source: Capital Advisors Group’s FundIQ®

**WALs Expand to a Range of 59-65 Days:** **Figure 5** tells a similar story on the weighted average life (WAL) of FundIQ Peer Group funds. WAL measures a portfolio’s interest rate sensitivity to the legal final maturity of securities with floating coupon features. It is also a liquidity indicator, as a portfolio with a shorter WAL runs off sooner. Compared to the 120-day limit set by the SEC, the median fund’s WAL expanded from 7 days in September 2016 to a range of 59-65 days for most of 2017, a prudent level in today’s yield and credit environment.

Dispersion among Peer Group funds is again evident since the passage of the new rules. The persistent gap between the funds with the longest and shortest WALs tells a story of diverging views and management styles among Peer Group funds on liquidity, credit and interest rate philosophies. Should the Fed accelerate interest rate increases, funds with longer WALs will experience larger NAV declines, all else being equal.

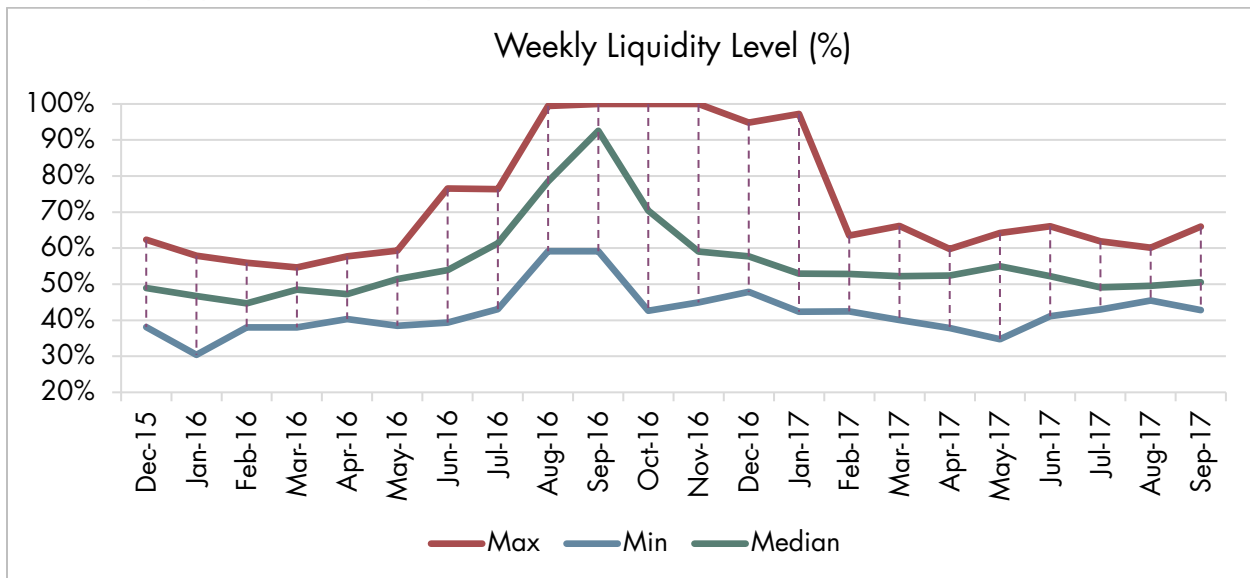
Figure 5: WAL Dispersion



Source: Capital Advisors Group's FundIQ®

**Portfolio Liquidity Remains High:** In preparation for rule changeovers, most Peer Group funds managed their portfolios' weekly liquidity at close to 100% in September 2016. The levels have since dropped to more normal readings of around 50%, as indicated by the median fund, and above the 30% threshold that triggers redemption restrictions. Over the long run, the level may drop further to generate higher income potential, although most funds are likely to have higher internal limits to preserve a safety margin above 30%. Peer Group dispersion here is noticeable as well, although the gap has narrowed from 57% to 23% since October 2016.

Figure 6: Liquidity Levels Held Steady



Source: Capital Advisors Group's FundIQ®

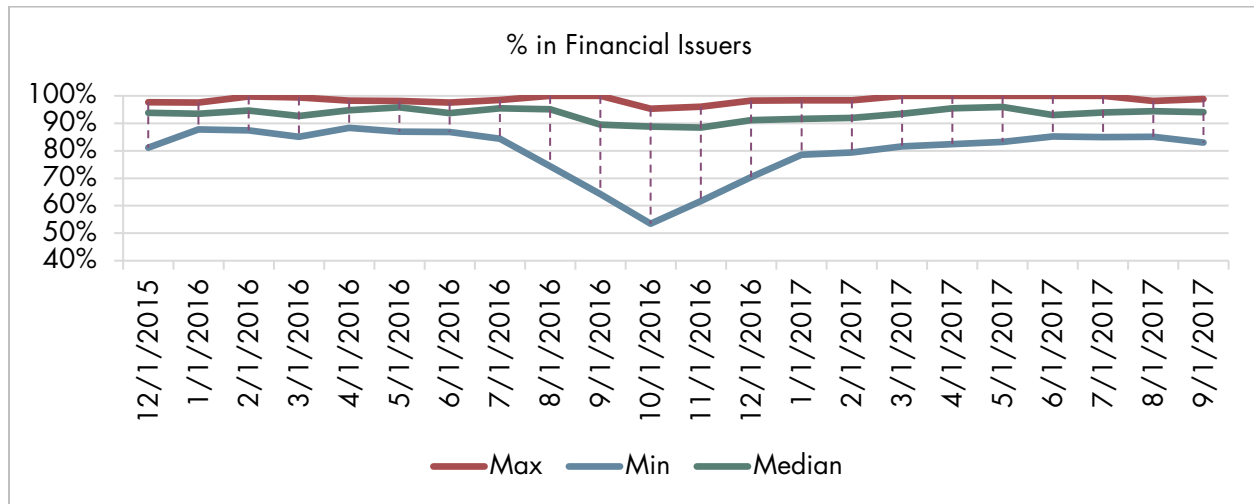
**Financial Sector and Issuer Concentration Remains High**

In their roles as market intermediaries between short-term borrowers and institutional cash investors, large prime funds continue to maintain concentrated exposures to financial issuers.

**Financial Exposures Back to Pre-Reform Levels:** As [Figure 7](#) and [Figure 8](#) indicate, the median fund’s exposure to the financial sector was more than 90% for most of the time since December 2015. Some funds temporarily dropped their exposure prior to the reform, but soon added back positions to earlier levels. Unsurprisingly, much of this concentration of exposure has been to non-US financial services companies that look to the US capital markets to fund their lending and securities business.

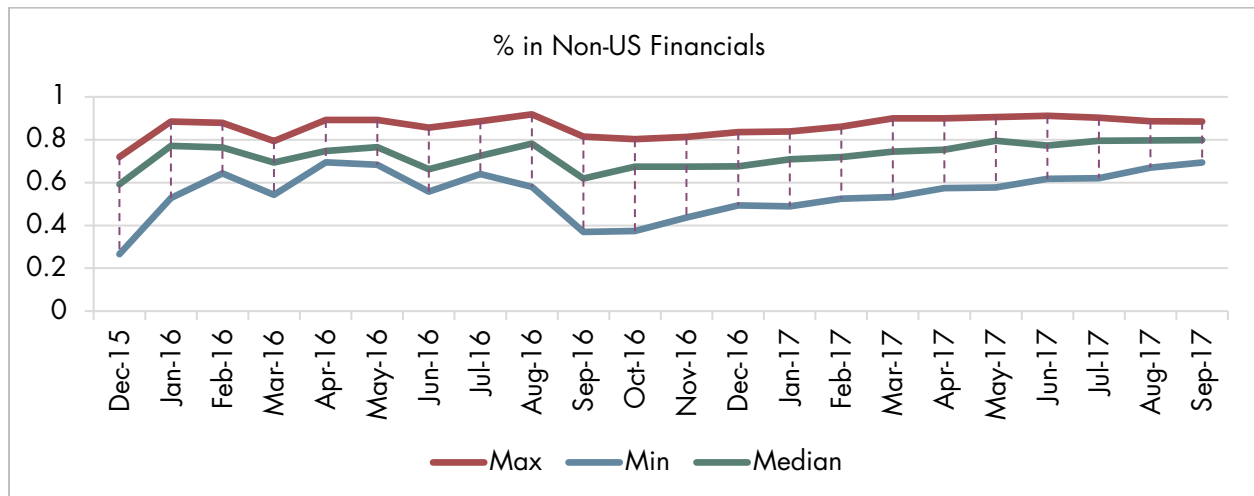
Our figures include counterparty exposures in repurchase agreements (repos) with international banks backed by high quality, US government securities. While the repo collateral may be of high quality, its convertibility to cash quickly, with minimal price concessions in the case of a counterparty failure, is a relevant risk factor, especially if the failure also impacts market liquidity.

**Figure 7: Exposures to Financial Issuers Remain High**



Source: Capital Advisors Group’s FundIQ®

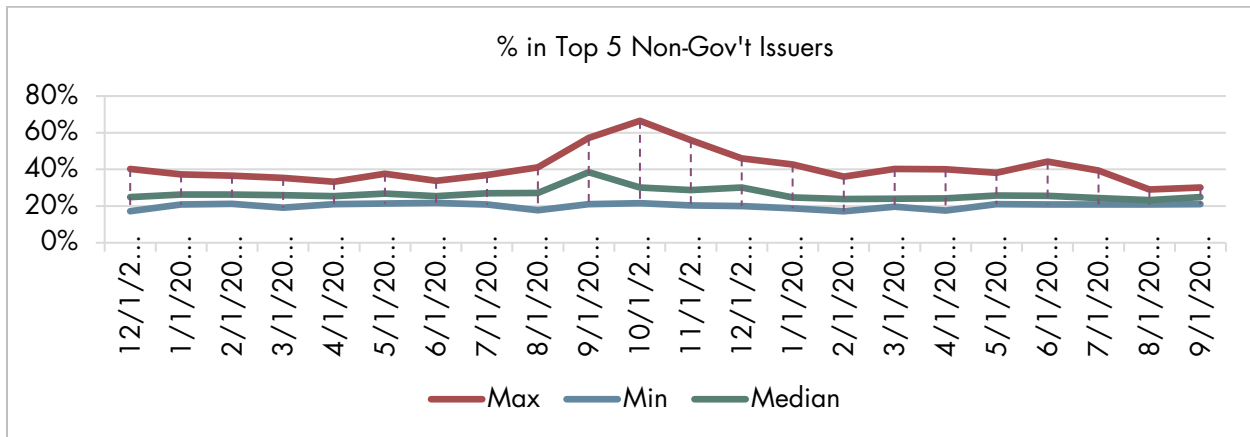
**Figure 8: Non-US Concentration Remains High**



Source: Capital Advisors Group’s FundIQ®

**Top 5 Exposures Stayed at Historical Norms:** FundIQ® tracks Peer Group funds’ aggregate exposure to the five largest non-US government issuers at the parent level. It appears that this measure has been consistent in the range of 20-25% for most of the months under observation. The large jump in late 2016 appeared to be related to the funds’ heavy utilization of overnight repos. It also appears that the funds are converging to the median in recent months, suggesting a return to an historical appetite for risk concentration.

**Figure 9: Issue Concentration Held Steady**

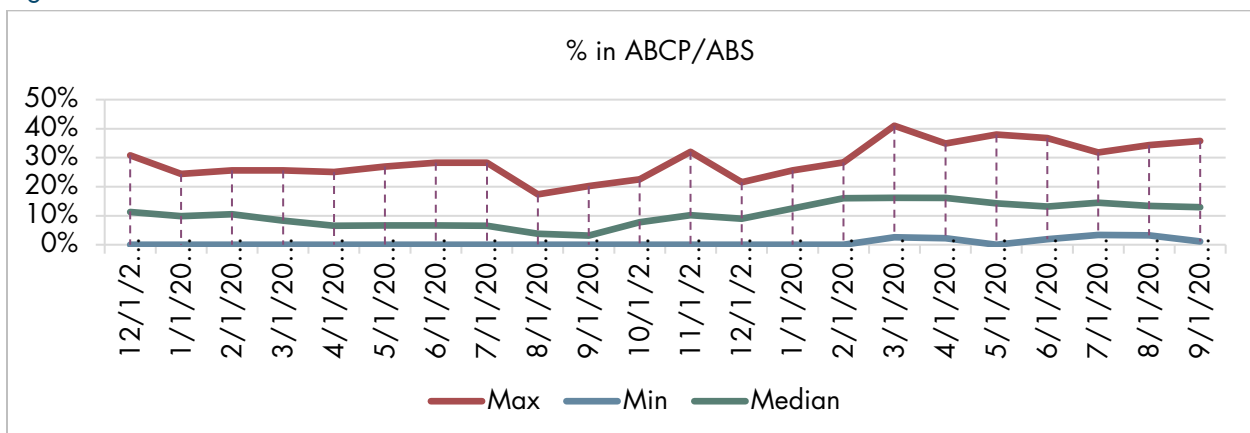


Source: Capital Advisors Group’s FundIQ®

**Increased Exposure to Asset-backed Issuers:** Interestingly, the use of asset-backed commercial paper (ABCP) and other asset-backed issuers appeared to have increased since the new rules went into effect. This group of issuers received great attention during the financial crisis as some programs turned out to contain sub-prime mortgage exposure. And ABCP issues require a higher level of credit and market sophistication than regular unsecured CP program, a factor that reduces their market liquidity. But **Figure 10** shows that, compared to 10% or less exposure in the first half of 2016, the median fund has had close to 15% exposure to asset-backed issues for most of 2017. One explanation may be that the surviving ABCP programs have proven themselves to be more resilient than the discontinued ones. In addition, more regulatory clarity as well as the market’s expectation that some regulations may be scaled back under a new Administration also may contribute to their popularity.

**Figure 10** also shows noticeable divergence among the Peer Group funds in ABCP usage. While one fund uses as much as one third of the portfolio, another’s exposure is negligible.

**Figure 10: Increased Use of Securitization**



Source: Capital Advisors Group’s FundIQ®

Consistent Top Borrowers from Canada, Japan and France: Figure 11 provides a glimpse of the top borrowers in the US institutional fund space. The table lists aggregate holdings in the 13 FundIQ Peer Group funds. As of September 2017, the top 10 issuers consisted of three banks from Canada, two from France, Japan and the Nordic region each and one from the US. This distribution is similar to the December 2015 holdings, with three banks from Japan, and two each from the US, Canada and France. On the other hand, US Treasuries are no longer a top-10 exposure as funds worked to normalize their portfolio holdings after the reform.

Figure 11: Largest Issuers

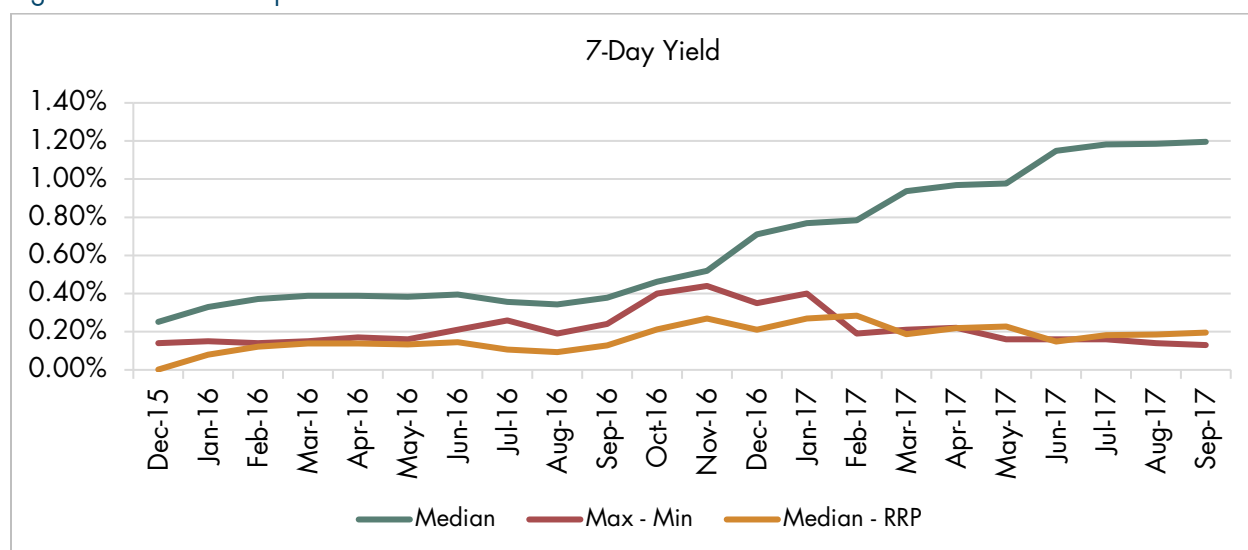
9/30/2017	Value	%	10/31/2016	VALUE	%	12/31/2015	%
BNP PARIBAS	5,411,063,324	4%	UNITED STATES	7,549,515,108	8%	UNITED STATES	19%
ROYAL BANK OF CANADA	4,622,634,849	4%	MITSUBISHI UFJ	4,165,499,492	4%	MITSUBISHI UFJ	4%
MITSUBISHI UFJ	4,161,649,825	3%	CREDIT AGRICOLE	3,854,497,567	4%	WELLS FARGO	4%
TORONTO DOMINION	3,900,048,591	3%	WELLS FARGO	3,818,478,113	4%	SUMITOMO MITSUI	4%
SUMITOMO MITSUI	3,656,258,205	3%	BNP PARIBAS	3,211,309,296	3%	BANK OF NOVA SCOTIA	3%
SOCIETE GENERALE	3,520,346,010	3%	BANK OF AMERICA	3,122,891,959	3%	CREDIT AGRICOLE	3%
SEB	3,380,396,618	3%	MUNI	3,060,766,405	3%	JPMORGAN CHASE	3%
CIBC	3,324,904,632	3%	SEB	2,777,072,330	3%	ROYAL BANK OF CANADA	3%
WELLS FARGO	3,145,769,593	3%	NATIXIS	2,576,437,294	3%	BNP PARIBAS	3%
DNB	3,137,118,979	3%	CITIGROUP	2,545,436,640	3%	MIZUHO FINANCIAL	3%
<b>TOTAL</b>	<b>38,260,190,625</b>	<b>31%</b>	<b>TOTAL</b>	<b>36,681,904,204</b>	<b>37%</b>	<b>TOTAL</b>	<b>48%</b>

Source: Capital Advisors Group's FundIQ®

### Higher Yields and Tighter Spreads

Since the Federal Reserve started interest rate normalization in December 2015, yield on institutional prime funds steadily climbed along with increases in the fed funds rate.

Figure 12: Yield and Spread



Source: Capital Advisors Group's FundIQ®, Bloomberg

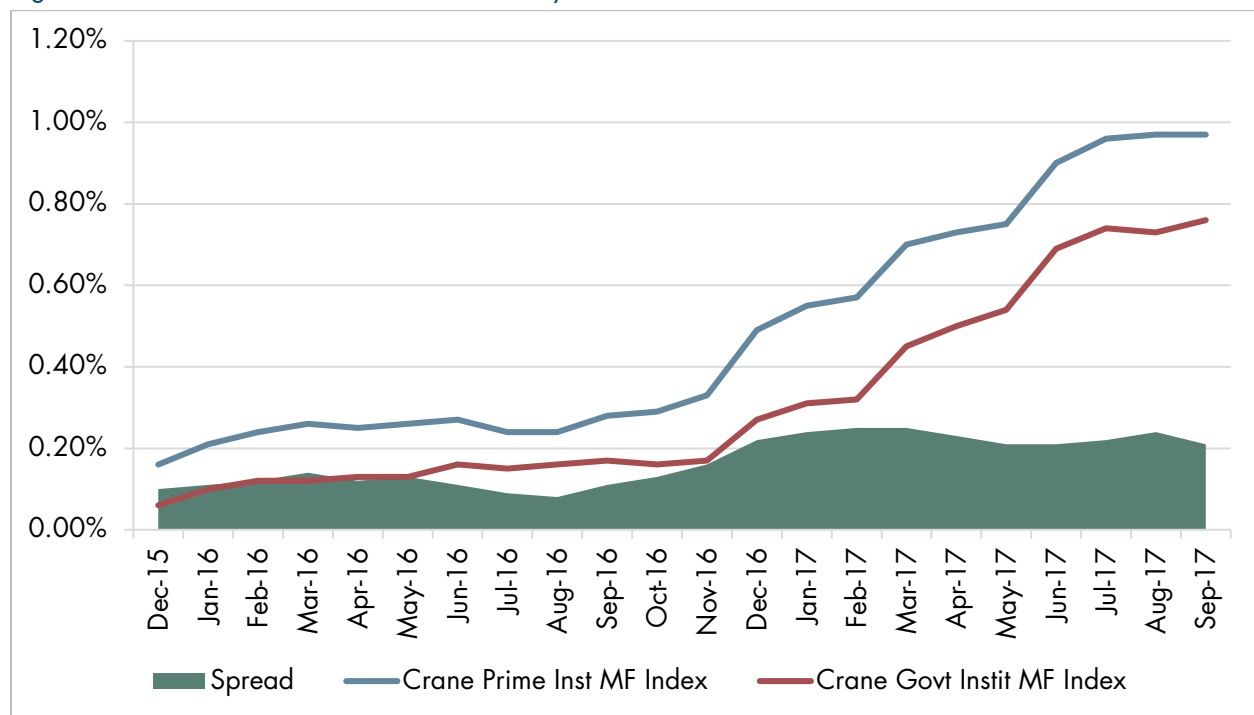


Figure 12 provides the median 7-day yield at month-ends between December 2015 and September 2017 for the 13 FundIQ Peer Group funds. The yield level rose from 0.25% to 1.20% for a total gain of 95 basis points, roughly matching gains in the fed funds rate.

The yield gap between the top and bottom performing funds rose in the first half of 2016 through the reform date, and narrowed after November 2016 as flight risk subsided and conservative funds added risk exposures. At September 30, 2017, the gap stood at 0.13%, the lowest level in the observation period.

Additionally, Figure 12 depicts the yield spread in the median fund over the Federal Reserve’s overnight reverse repurchase agreement (RRP) rate, the floor of the target fed funds rate range. The blue line shows that the median fund generated between zero and 0.28% yield spread over the de facto risk-free rate. (Funds have longer WAMs than RRP, thus having higher yield potential.) This spread follows the general trajectory of the Max-Min spread but at a shallower slope, which has hovered around 0.20% since March 2017.

Figure 13: Prime over Government Yield History



Source: Crane Data

To gain a broader understanding of institutional prime fund performance over government funds, we look to Crane Data’s money fund indices. Figure 13 shows institutional prime funds in the Crane Data universe earned 0.97% on average as of September 30, while institutional government funds earned 0.76%, for a yield spread of 0.21%. The prime over government spread has been 0.20-0.25% since December 2016.

Past surveys conducted by treasury management associations and securities firms suggested a wide range of 0.25-1.00% yield spread for investors considering prime funds to overcome the obstacles of floating NAVs and redemption restrictions. Is the current spread enticing enough, in absolute terms and relative to government funds and the RRP, for institutional cash investors to take a serious look? Answers to this question vary from organization to organization, but we have noticed an uptick in investor inquires in recent weeks. The year-to-date increases in institutional prime assets also corroborated some reawakened interest in prime funds.

### **Recovery Evident, Portfolios Generally Conservative, Shareholder Risk Remains**

To conclude, institutional prime funds recaptured some lost ground after the near fatal blow to their popularity as essential cash management tools. Assets have grown slowly but consistently, although balances still lag government funds. For some shareholders, going back to prime funds may be an uphill internal battle. Industry concentration at firm and fund levels may keep some investors on the sidelines.

Fund characteristics, such as WAM, WAL and weekly liquidity, have returned to normal, pre-reform levels. While the median fund's statistics look conservative, as portfolio managers strive to maintain NAV stability and minimize the "fees & gates" risk, wide dispersion exists, reflecting different risk and liquidity considerations.

Institutional prime funds, as a group, continue to be primarily a short-term funding outlet for financial institutions, many of which are based in Canada, Japan and France, as they were pre-reform. The use of asset-backed instruments also increased in most Peer Group funds.

Yield on prime funds benefitted from higher fed funds rates, as yield on the median fund roughly kept pace with the Fed's RRP rate moves. Portfolio rebalances after the reform, including re-lengthening WAMs/WALs and reducing portfolio liquidity also contributed to yield gains. The prime-over-government yield spread of 0.20-0.25% may not be enough to lure most cash investors back into prime funds, but interest has been building.

We think that, although institutional prime funds have made impressive strides recovering from last year's reform impact, structural changes have reduced their appeal to a subset of previous shareholders. Floating NAVs, uncertainty related to fees and gates and sponsor and shareholder concentration have changed the funds' utility from overnight, stable value deposit equivalents to return-oriented reserve instruments. The multi-NAV pricing and redemption model with some prime funds is still untested in a volatile, rapidly developing intra-day market.

We are optimistic that institutional prime fund assets will continue to grow, as the SEC's 2a-7 rules governing MMFs continue to offer cautiously interested investors better protection and safeguards than ultra-short bond funds and private liquidity funds. Their more specialized appeal, however, may limit their long-term growth potential relative to government funds.

For investors with a slightly longer time horizon and tolerance for interest rate volatility, a portfolio of separately managed securities of comparable or higher credit quality may be a suitable alternative. For those who require overnight commingled assets, a two-tier structure of government and prime funds may be the preferred approach to improve liquidity and yield potential.

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Drawing upon more than a quarter of a century of experience through varied interest rate cycles, the firm has built its reputation upon deep, research-driven investment strategies and solutions for its clientele.

Capital Advisors Group manages customized separately managed accounts (SMAs) that seek to protect principal and maximize risk-adjusted returns within the context of each client's investment guidelines and specific liquidity needs. Capital Advisors Group also provides FundIQ® money market fund research; CounterpartyIQ® aggregation and credit analysis of counterparty exposures; risk assessment on short-term fixed income securities and portfolios; and independent debt finance consulting services.

Headquartered in metropolitan Boston, Capital Advisors Group maintains multiple U.S. regional offices.

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