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Money Market Funds at Inflection Point

Declines in Prime Fund Assets and Opportunities for Investors

Abstract

- *An Industry at an Inflection Point - Outflows from prime funds have been more severe than forecast. Fewer funds and fewer fund companies are left in the prime space. While stable NAV government funds will likely continue to flourish, the appeal of prime funds has diminished.*

- *Diminished Yield Potential - The anticipated higher prime-to-government fund yield spread has not materialized, largely due to portfolio managers' defensive measures.*

- *Immediate Rebound in Prime Assets Unlikely - The constraining WAM/WAL and liquidity requirements are formidable and permanent impediments. Shareholder uncertainty, presidential politics, Fed interest rate policy changes and year-end calendar effects all make an immediate rebound in prime assets unlikely.*

- *Market Dislocation Creates Opportunities - Reform-related fund flows resulted in lower demand for corporate paper and led to higher yield potential. Data suggests that a portfolio of AA-rated 90-day commercial paper may provide 3.0x and 4.5x the yield potential of institutional prime and government funds, respectively.*
- *Direct Purchases and SMAs - Taking advantage of the yield opportunities requires a mandate of direct purchases or a separately managed account (SMA). Structural changes to prime funds and recent investor surveys point to renewed interest in these mandates.*
- *Renewed Vigor in Counterparty Risk Accountability - An integrated risk tool may help steer investors in this direction in developing internal trading capabilities or gaining better insight into external managers' credit performance.*

Introduction

The wait will soon be over! The future for money market funds was in doubt almost immediately after shareholders in the Reserve Prime Fund took principal losses eight years ago. Over this period, investors, issuers, asset managers, regulators, politicians, academics and interest groups had their say before the Securities and Exchange Commission (SEC) ordered two rounds of rule changes for the popular cash investment vehicle.

Two key features of the second round of reform, effective October 14, 2016, are market-based pricing in net asset value (NAV) calculations for institutional prime funds and possible redemption fees and gates for all prime funds. As the date draws close, anxiety is running high as to whether these features would end money market funds as we know them today. Drastic structural changes to a popular cash vehicle with few credible substitutes stoked concerns of funding difficulties for needy issuers and general instability in the financial system.

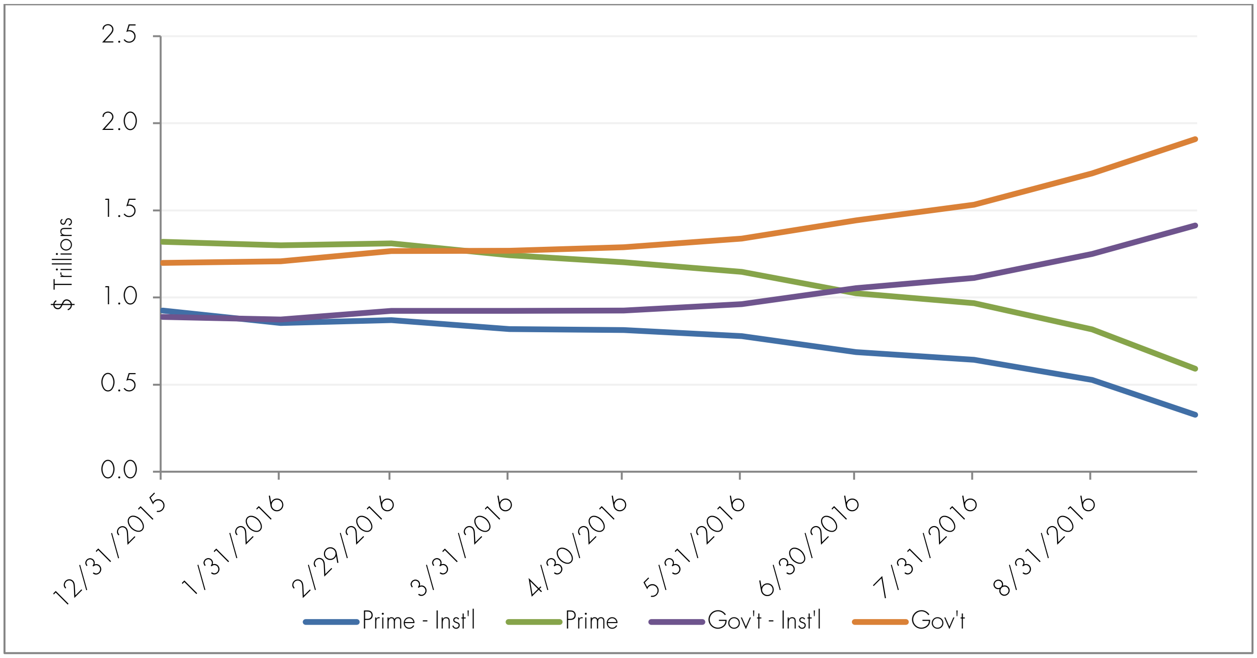
At the trailhead of a brave new path, we offer a recap of fund statistics since the beginning of this year. As the cliché adage goes, a crisis represents both danger and opportunity, and we identify the opportunity created by reform-related market dislocations. Rather than waiting for prime funds' return to glory, we encourage investors to consider options free from shared liquidity risk in commingled vehicles and to explore better counterparty risk management solutions.

Money Market Funds at an Inflection Point

Since the SEC announced the floating NAV and fees and gates provisions for prime institutional funds in July 2014, the money market community has been in a state of uncertainty filled with guessing and speculation. Prime asset outflows, prime-to-government fund yield spreads, fund closures and fund family consolidations… the subject list goes on. With two weeks to go, we summarize a few of the data trends to highlight the state of the industry today.

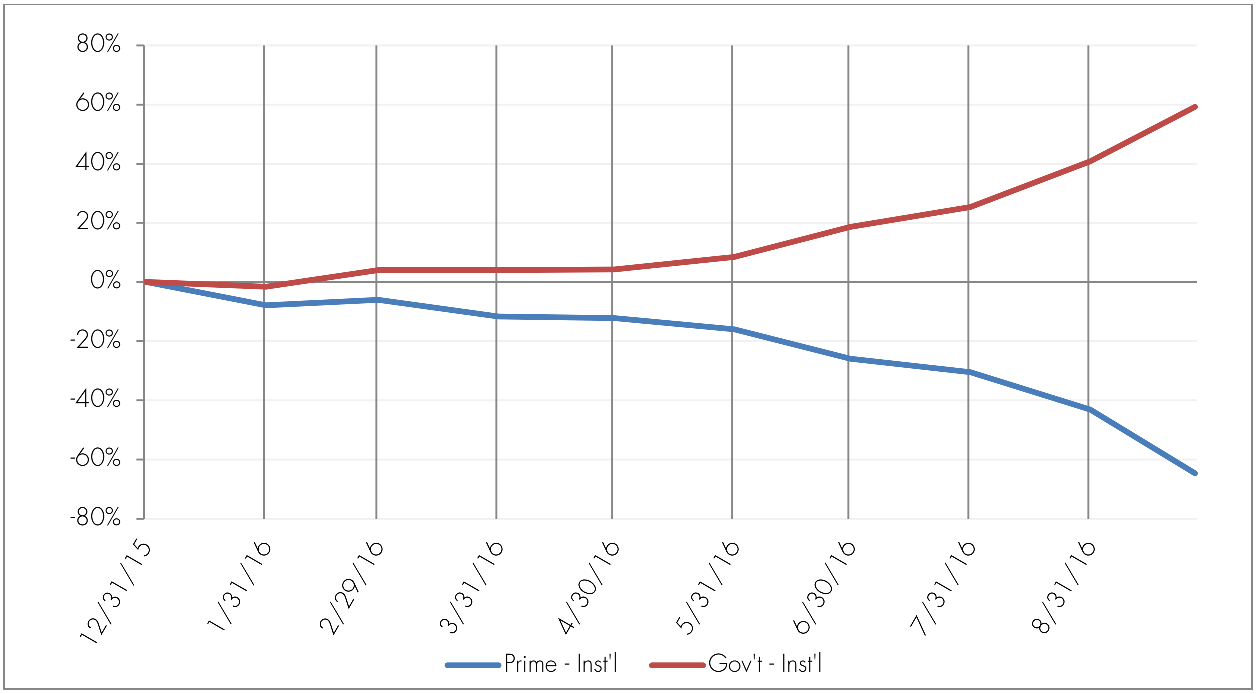
Fund Flows Fast and Furious: Prime fund assets decreased 55% from $1.3 trillion on December 31, 2015 to $591 billion on September 27, 2016, according to iMoneyNet's domestic market share data series (Figure 1). Government fund assets grew 59% from $1.2 trillion to $1.9 trillion over the same period. Institutional prime assets experienced higher outflows, losing nearly two-thirds (65%) from $926 billion to $327 billion, already surpassing the low end of industry estimates. Institutional government funds gained 59% from $888 billion to $1.4 trillion (Figure 2).

Figure 1: Money Market Fund Asset Flows (12/31/2015 to 9/27/2016)



Source: iMoneyNet

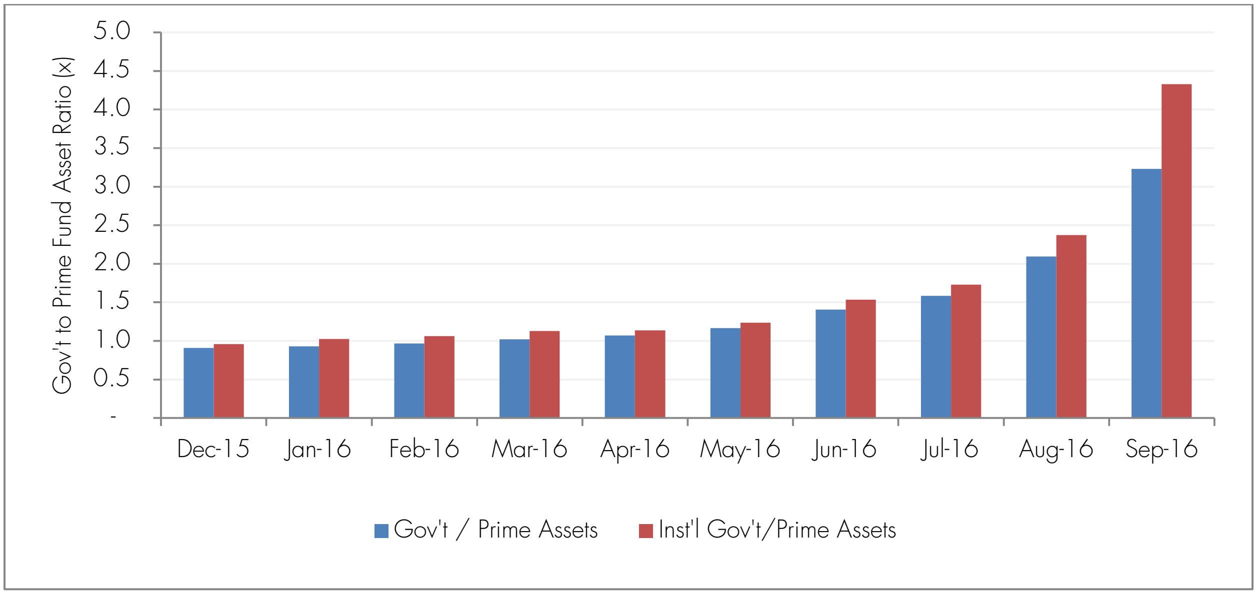
Figure 2: % Changes in Institutional Assets (12/31/2015 to 9/27/2016)



Source: iMoneyNet

Noticeably Higher Government-to-Prime Fund Asset Ratios: Note that the net reduction for institutional prime assets over the period is $729 billion, while institutional government funds gained $526 billion, suggesting that $203 billion (28%) of the prime outflow went elsewhere. These fund statistics do not include asset flows in tax-exempt funds.

Figure 3: Government-to-Prime Asset Ratio

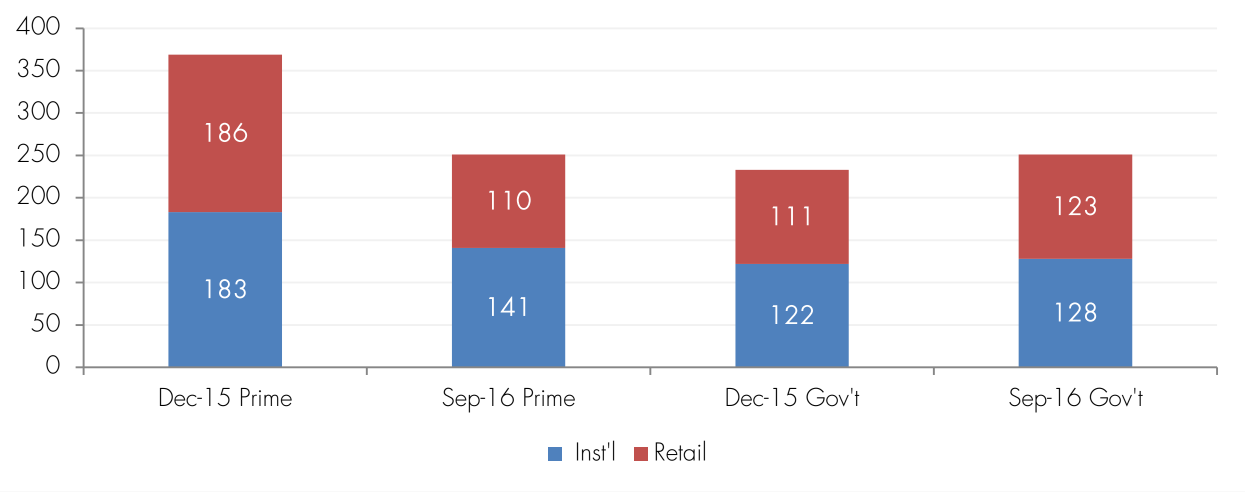


Source: iMoneyNet

At the end of 2015, assets in government and prime funds were at a 1:1 ratio. Fast forward nine months, the government to prime fund ratio rose to 3.2x for overall assets and 4.3x for institutional assets (Figure 3).

Fewer Prime Funds and Prime Fund Families: As widely reported, reform-related asset migration occurred in two waves: fund sponsor-initiated prime-to-government conversion and shareholder-led redemptions. Sponsor-initiated decisions resulted in a reduced number of prime funds, with some firms exiting the business of managing prime fund assets altogether.

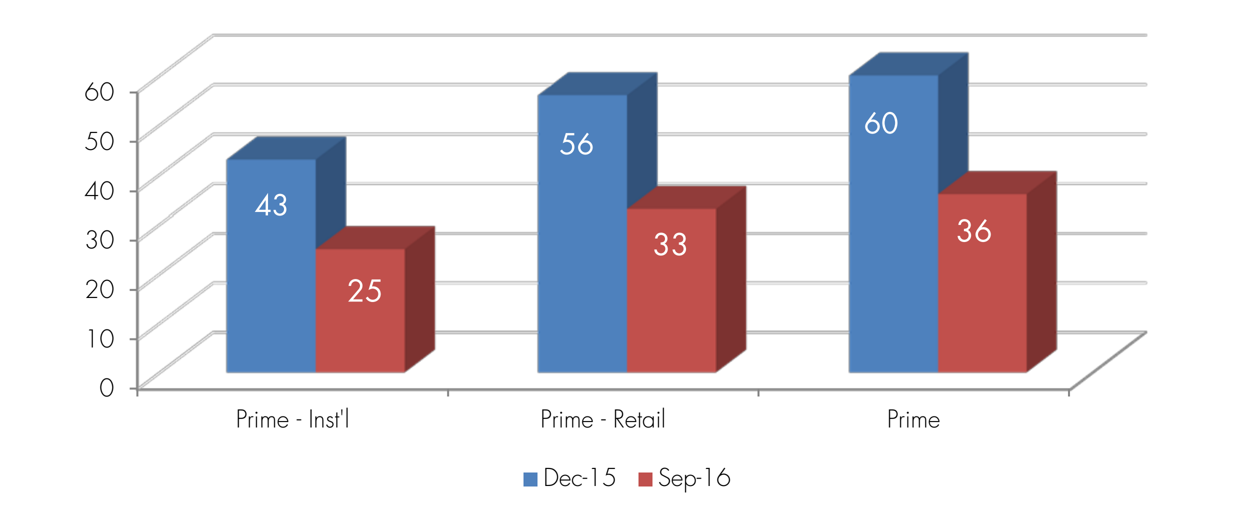
Figure 4: Number of Institutional and Retail Funds (12/31/15 vs. 9/27/2016)



Source: Crane Data

In the last nine months, 118 prime funds were either liquidated or converted to government funds, a reduction of 32% from 369 in December 2015 to 251 in September 2016, according to Crane Data (Figure 4). 76 retail (41% reduction) and 42 institutional (23%) funds bid farewell to prime. It is interesting that more retail funds left the prime space, since they were initially expected to be less impacted by the reform as their NAVs will be permitted to stay at a constant $1. 00.

Figure 5: Number of Fund Families of Prime Institutional and Retail Assets (12/31/15 vs. 9/27/2016)

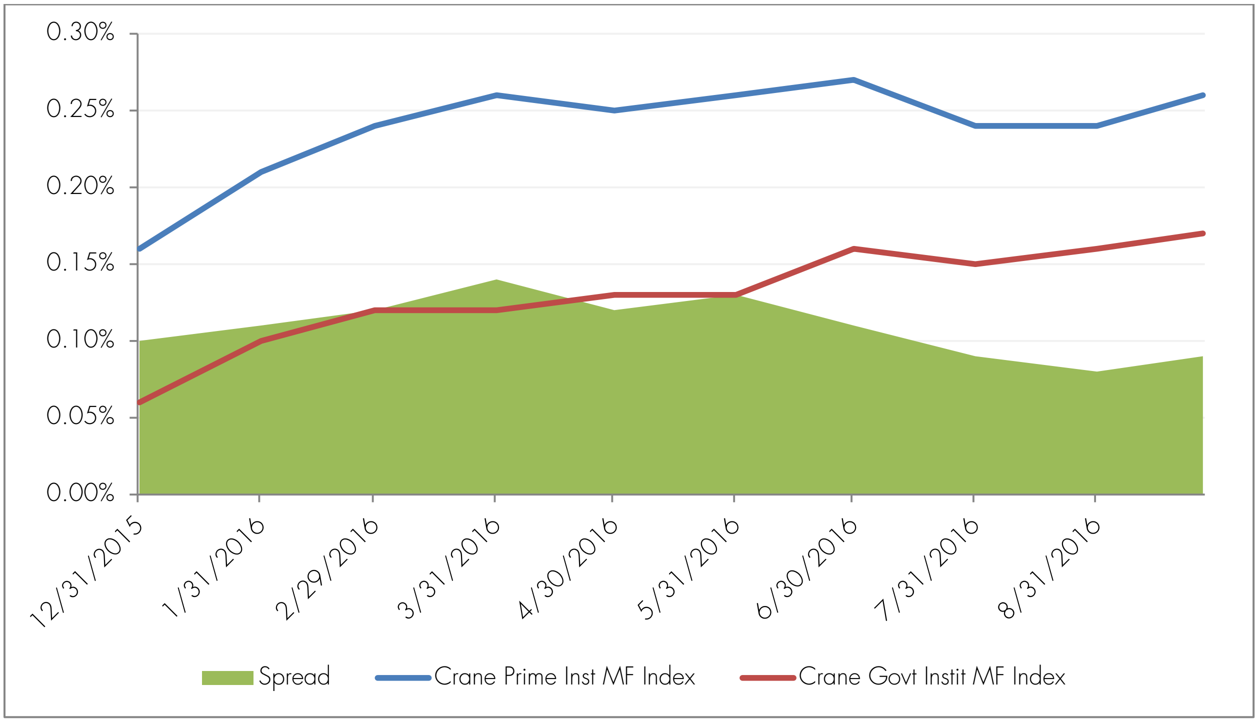


Source: iMoneyNet

The number of prime fund companies declined 32% from 60 in December 2015 to 36 in September 2016, according to iMoneyNet (Figure 5). Today, 25 fund families continue to offer institutional prime funds compared to 43 at the end of last year.

Prime-to-Government Yield Spread Widened, Then Contracted: A widely debated subject among industry participants is the post-reform yield spread between prime and government funds. As assets leave the prime space, one would expect the yield spread to widen to establish new supply and demand equilibrium. It was speculated that a wider yield spread might eventually win back some yield-sensitive shareholders to prime space.

Figure 6: Crane Institutional Money Fund Index Spread (Prime vs. Government)



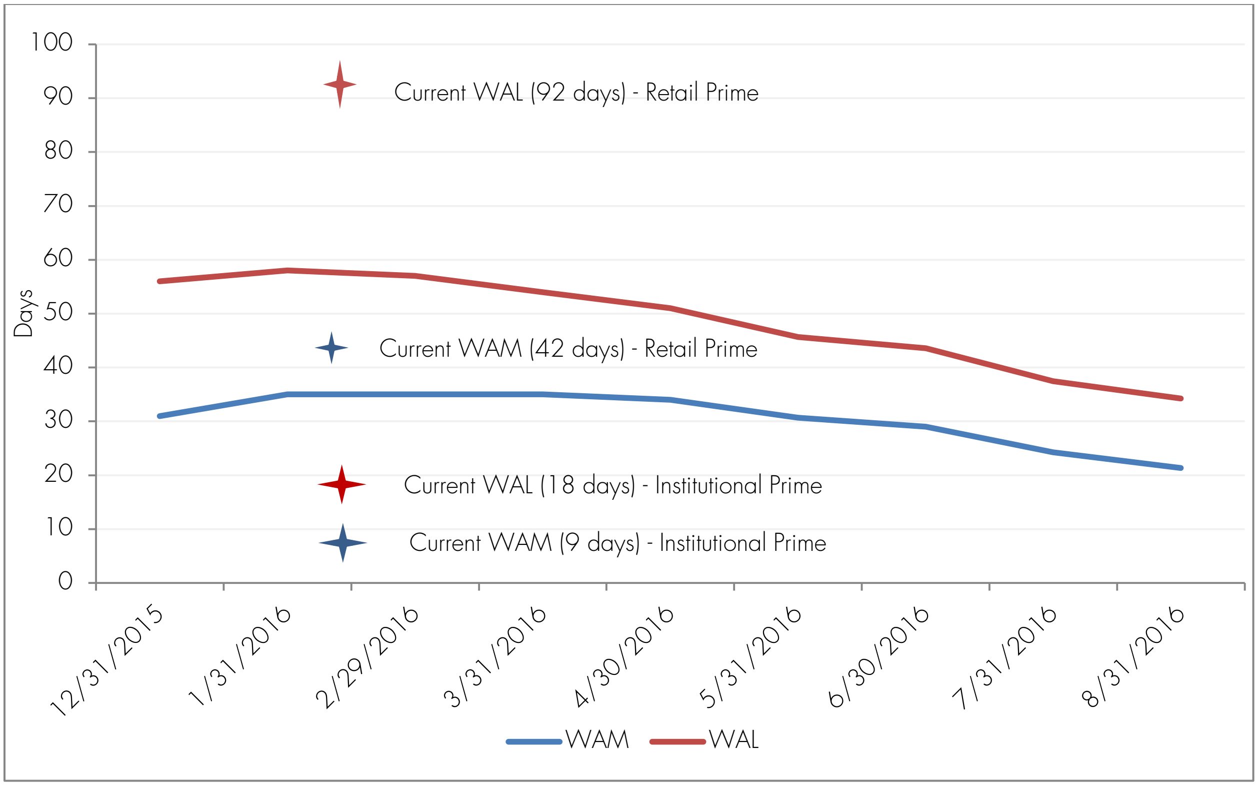
Source: Crane Data Money Fund Intelligence Indices as of 9/27/2016

Index data from Crane Data shows the average institutional prime fund's 7-day yield rose at a faster clip than their government fund peers in the first quarter of 2016. The trend stagnated for the summer months and has reversed course since June, when yield on both indices rose, but the yield spread narrowed. It stands at 9 basis points (0.09%) today, roughly the same as at the end of 2015 (Figure 6).

We believe the yield spread contracted in recent months because prime fund managers became more aggressive in building liquidity and reducing maturities through the summer months, both of which negatively impacted prime fund yields.

Shorter WAM/WAL and Higher Liquidity: In preparation for uncertain reform-related asset flows, prime funds reduced weighted average maturity (WAM) and weighted average life (WAL) well below historical levels. They also built up daily and weekly liquidity measures at the same time. A common practice to achieve these results was to avoid securities maturing beyond September 2016 when redeploying maturing investments.

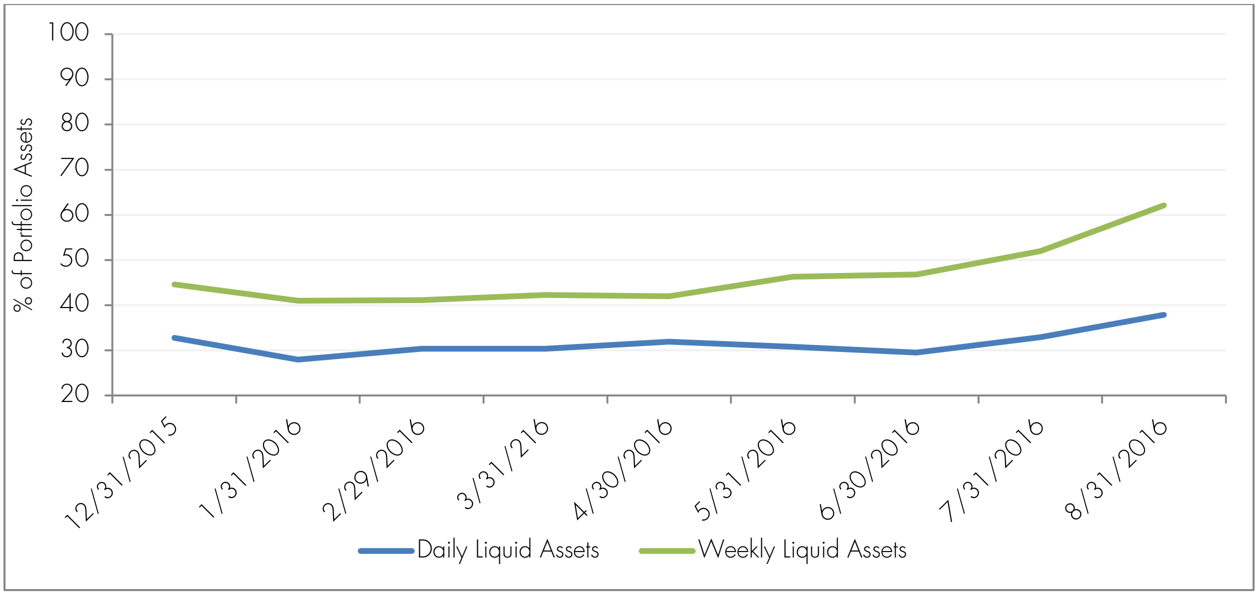
Figure 7: WAM and WAL History for Prime Funds (12/31/2016 to 9/27/2016)



Source: ICI and Crane Data

Based on monthly portfolio data from the Investment Company Institute (ICI), the average prime fund WAM dropped 12 days since the end of last year to 21 days on August 31, 2016, the latest monthly data point available (Figure 7). As of September 27, Crane Data shows the WAM for its institutional prime fund index at nine days, while the retail prime index's WAM is at a relatively high level of 42 days. The ICI data also shows the prime fund WAL, a measure of securities' average final maturity, was shortened by 31 days to 34 days through August. Crane Data puts the WAL for institutional prime funds at 18 days on September 27, while retail prime fund WAL stands at 92 days.

Figure 8: Daily and Weekly Portfolio Liquidity for Prime Funds



Source: ICI and Crane Data

The same ICI data series show that average daily liquidity for prime funds grew from 33% to 38% between December 2015 and August 2016. Crane Data puts the figures at 60% for institutional funds and 43% for retail funds on September 27 (Figure 8). Weekly liquidity grew from 45% in December to 62% in August. By September 27, the levels were 84% for institutional funds and 68% for retail funds. These high levels of portfolio liquidity surpassed any previous records in the nearly five decades since the start of the money fund industry.

An Industry at an Inflection Point: To summarize, the money fund industry is at an inflection point. Outflows from prime funds were more severe than forecasts, with retail assets leading the way. Fewer funds and fewer fund companies are left in the prime space as structural changes made the product less attractive. While stable NAV government funds will continue to flourish as viable safe and liquid alternatives to deposit products, the appeal of prime funds to institutional cash investors has diminished. The anticipated offsetting development to entice shareholders to stay, namely higher yield spread to government funds, has not materialized, largely due to portfolio managers' defensive measures against unanticipated shareholder withdrawals.

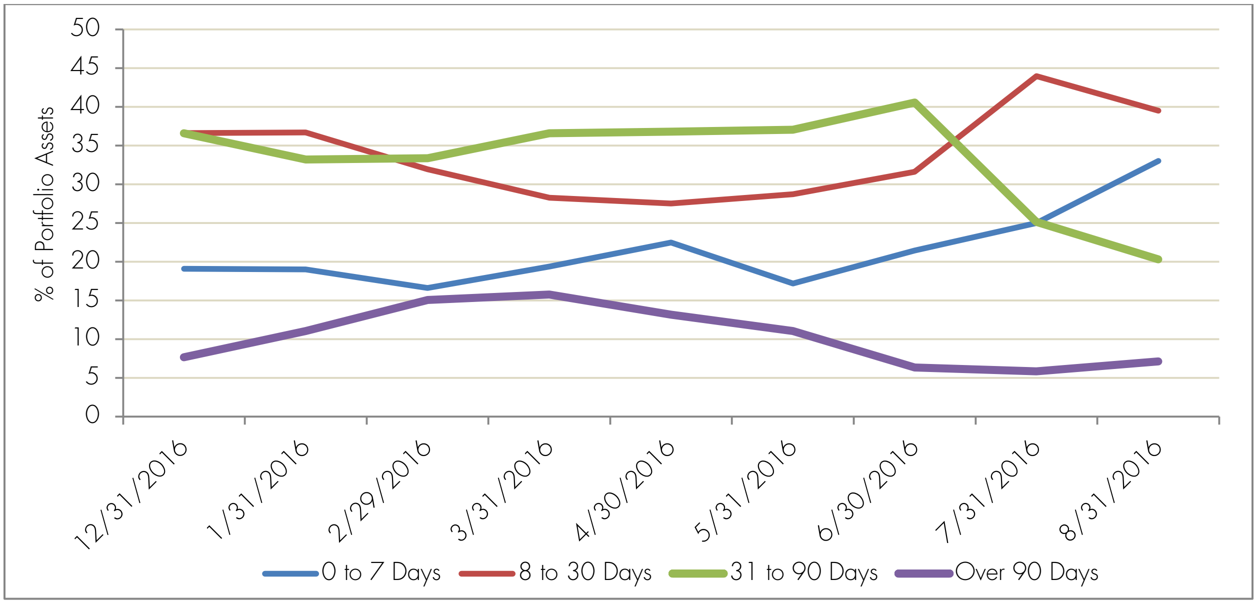
Immediate Rebound in Prime Assets Unlikely: Prime funds may have an uphill battle to win back former shareholders. The constraining WAM/WAL and liquidity requirements, plus some margins of safety in practice, are formidable and permanent impediments to the asset class' yield competitiveness. With shareholder uncertainty, presidential politics, Fed interest rate policy changes and year-end calendar effects, an immediate rebound in prime assets after October 14 appears unlikely. Without the introduction of more favorable regulatory amendments, the penetration of prime funds in institutional cash management is unlikely to return to previous record levels. Investors seeking alternatives to government funds and bank deposits are better advised to look among a wider selection of alternative instruments.

Where There is Danger, There is Opportunity

With drastic changes in prime fund portfolios, there has been noticeable knock-on effect on the supply chain for money market funding mechanisms. 2016 has been another banner year for high grade corporate new issuance thanks to the low yield environment. However, non-government issuance in the overnight to 13 month part of the money market curve dwindled because of money funds' reluctance to buy securities maturing beyond the

October 14 deadline. Along with supply disruption, credit spreads beyond one-month have been climbing, creating opportunities for cash investors other than prime funds.

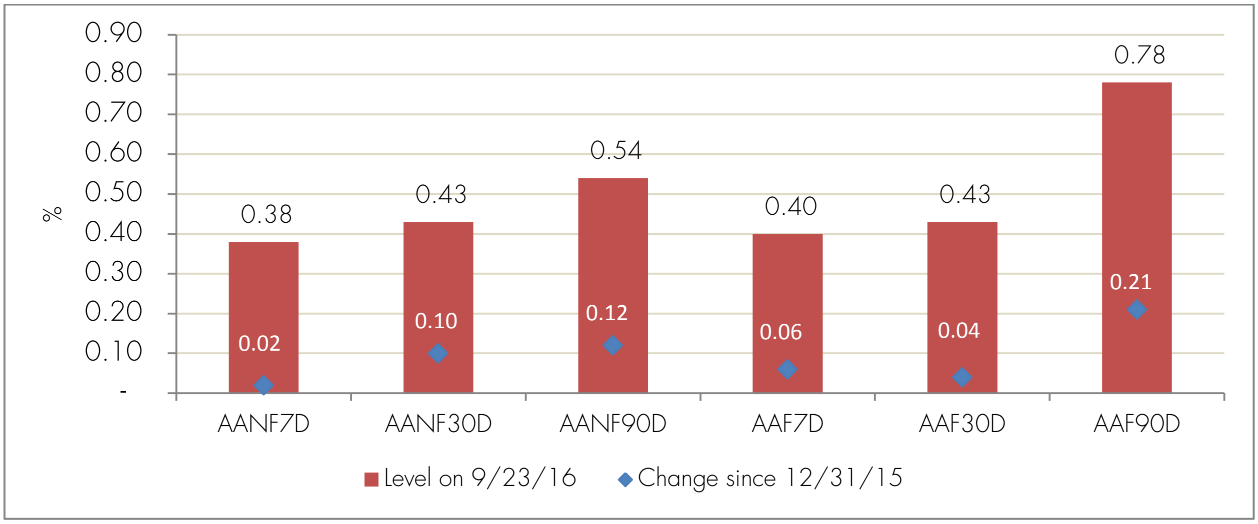
Figure 9: Maturity Distribution of Commercial Paper in Prime Funds



Source: ICI data

Lower Demand for Longer-term Corporate Paper: The shifts in portfolio maturity distribution among prime funds is more noticeable in credit instruments such as commercial paper (CP) than government instruments, which continue to enjoy popularity with both prime and government funds. As Figure 9 indicates, CP with 0-7 day maturities rose from 19% in December 2015 to 33% in August 2016. By contrast, the 31-90 day cohort dropped from 37% to 20% over the same period. The distribution to the over-90-day cohort stayed relatively low at 7%. Not pictured here is the overall CP concentration in prime portfolios, which declined from 25% to 22% over the December to August timeframe.

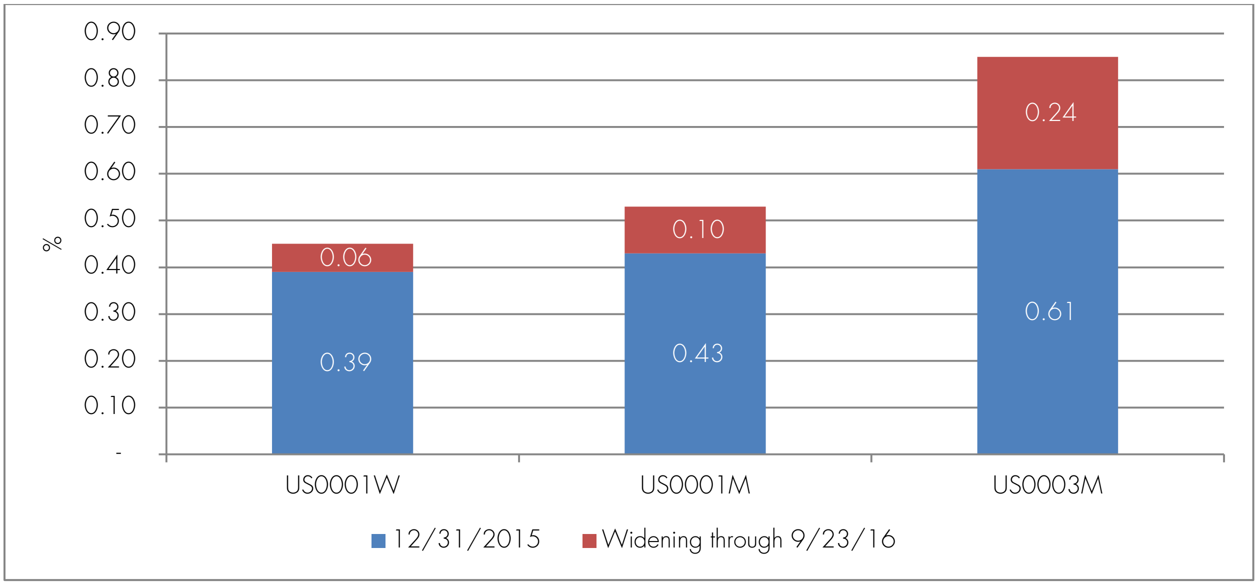
Figure 10: Commercial Paper Discount Rate at 7, 30 and 90-day Maturity



Source: Federal Reserve H15 reports

Higher Yield and Wider Spreads for Longer Maturities: Figure 10 provides the CP discount rates collected by the Federal Reserve as of September 23, 2016 for AA-rated financial (AAF) and non-financial CP (AANF) at 7-day, 30-day and 90-day maturities. For example, the discount rate on the 90-day AA-rated financial CP (AAF90D) is currently at 0.78%, an increase of 0.21% from the December 31, 2015 level. This level represents a 0.38% pickup (0.78%-0.40%) over the 7-day SA-rated financial CP (AAF7D), which gained 0.06% over the same period. The blue markers show rate increases over the nine-month period and are higher as maturity increases. This phenomenon coincides with prime funds' aversion to longer-maturity paper.

Figure 11: Movements in the US LIBOR (12/31/15 – 9/23/2016)



Source: Bloomberg

Besides CP discount rates, a more general risk indicator of short-term credit investments is the London Interbank Offered Rate (LIBOR). At various maturity points and across major currencies, LIBOR is the indicative rate at which large banks lend money between themselves. Over the last nine months, the 1-week US dollar LIBOR grew 0.06% to yield 0.45%, while the 3-month US LIBOR grew 0.24% to 0.85%. Last December, the 3-month rate had a yield pickup of 0.22% over the 1-week rate. On September 23, this pickup grew to 0.40% (0.85%-0.45%).

Curve Steepening Driven by Fund Preferences: While specific causes for the yield movements may be multifaceted, one likely explanation is the difficulty for banks to secure funding beyond the maturities in which prime funds are willing to invest. The longer the maturity, the more a bank must pay to secure funding from other investors. This phenomenon did not attract much attention until late in the summer, when a three-month security would put the maturity beyond the October deadline. Issuers may not adjust their funding strategies quickly, resulting in the cheapening of longer instruments. As we got closer to the deadline, the 1-month LIBOR and related credit instruments also cheapened up.

Current Trend Unlikely to Reverse Soon: As Figure 7 indicates, the WAM for the average institutional prime fund is at nine days now and could get shorter in the coming weeks. We do not anticipate prime fund assets to climb in a meaningful way for the rest of 2016. This assessment is based on investors' preference to wait for the dust to settle and for major market factors such as the presidential election, likely Fed interest rate increases in

December and the year-end calendar effect. We expect prime portfolio managers to place more emphasis on NAV stability and sufficient liquidity for the near future, and not on performance-driven objectives.

Market Dislocation Creates Opportunities: The uncertainties and the abnormally large yield discrepancies create unique opportunities for institutional cash accounts. Broadly speaking, these higher yield opportunities came not through an increase in credit risk, but from supply and demand imbalances. Investors who are comfortable with the instruments in prime funds may benefit by capturing the extra yield by purchasing them outright, rather than purchasing them indirectly through a fund.

Substantial Yield Pickups: Referring back to Figure 6 and Figure 10, the average prime institutional fund yields 0.26% today. A portfolio of 30-day AA-rated financial and non-financial CP may fetch 0.43%, a pickup of 0.17% without the concerns of redemption fees and gates. More adventurous investors may opt for a portfolio of 90-day AA-rated financial CP that yields 0.78%, triple the yield of a prime fund. The pickup becomes more compelling when the respective yields are compared to 0.17% on the average institutional government fund where many treasury professionals stash their cash after transitioning out of prime funds.

Stepping Outside of the Comingled Box

Direct Purchases and SMAs: The opportunities created by the prime money fund reform require direct purchases or separately managed accounts (SMAs). While such mandates may be the oldest in the trade, they garnered less attention as money market funds grew in assets and popularity in previous decades. Structural changes to prime funds and results from several recent investor surveys point to renewed interest in direct purchases and SMAs in response to the reform. We have several whitepaper articles on the subject of SMAs compared to shared-liquidity cash vehicles, and welcome our readers to visit our website for details.

Prime Funds Past Their Prime: For decades, treasury managers enjoyed the safety and convenience of prime funds' innovative hybrid utility as investment and cash management vehicles. By doing so, we gave up options to explore market inefficiencies and relinquished the tasks of credit, market and operational risk control to professional money managers. In the post-reform era, government money market funds will continue to carry the safety and liquidity banners for the cash investment community, but the potential for excess income over deposit products will be more limited. Unless liberal policies come back to prime funds, their fate is constrained by short maturity and high liquidity mandates, both of which lead to yield disadvantages, in addition to the undesirable features of floating NAVs and redemption fees and gates.

Perils of Shared Liquidity: While nascent products including ultra-short mutual funds and private liquidity vehicles targeting institutional accounts hold some promise, they are not without complexities and have not yet been battle tested. One feature common to all comingled vehicles is shared liquidity risk. We learned from experience that, short of FDIC deposit insurance, few shared liquidity vehicles have proven resilient to market turmoil and investor panic. With the new SEC reform delineating retail from institutional shareholders, many constituents of the new institutional prime funds fit the definition of "hot money" and increase the funds' run risk at perilous times. The same may be true with ultra-short funds and private vehicles courting institutional cash investors to their exclusive clubs.

Renewed Vigor in Counterparty Risk Accountability: Despite SMAs' benefits and ability to explore current market inefficiencies, a renaissance of these traditional cash management accounts faces several headwinds. Challenges include a complex short-term funding market, instituting new processes and procedures with committed resources, and difficulties building adequate knowledge and accountability in credit, market and operational risk control related to separate portfolios. In our experience, some SMA clients rely on the expertise of their external managers, while others establish internal credit metrics and monitors of various sophistication. An integrated risk tool of fundamental metrics and early warning signals may help steer investors in this direction in developing internal trading capabilities or gaining better insight into external manager's credit performance.

About Us

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

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