Private Fund Data Shed Light on Liquidity Funds

by David C. Johnson

This brief analyzes for the first time a new confidential dataset collected by the Securities and Exchange Commission (SEC), the Form PF filings of liquidity funds. Like money market funds and banks’ short-term investment funds, liquidity funds generally invest in short-term assets and have portfolios structured to meet investors’ near-term liquidity needs. According to first quarter data, Form PF filers managed $288 billion in liquidity funds and an additional $359 billion in parallel managed accounts. In comparison with prime money market funds, liquidity funds hold assets with relatively longer maturities, have larger holdings of Treasury securities, and invest in a broader range of asset classes.

A run on prime money market funds was a key event during the financial crisis. Within a week of the failure of the Reserve Primary Fund in September 2008, investors redeemed $349 billion from prime money market funds, largely in favor of safer government funds. Forced sales of commercial paper and reductions in repurchase agreement, or repo, holdings by prime funds contributed to liquidity shortfalls for corporations and other borrowers amid the high rate of redemptions from prime funds. To restore confidence and combat tight credit conditions, the Federal Reserve and the Treasury Department created emergency programs to inject liquidity into financial markets and forestall redemptions from money market funds.

Less is known about what happened during the crisis to other money funds not subject to the SEC’s rules governing money market funds. Figure 1 outlines some key characteristics of five different types of money funds, including money market funds and other funds not subject to the SEC’s Rule 2a-7. Scattered evidence from the crisis suggests that individual local government investment pools (managed on behalf of state and local governments) and short-term investment funds (managed by banks) experienced stress, and it is possible that private liquidity funds did as well. Because insufficient data are available about how these funds performed during the crisis, we are limited in our ability to analyze risks that may have been present.

This brief analyzes liquidity funds using the data filed on the SEC’s new Form PF. As defined on the SEC’s Form ADV, liquidity funds are private funds “that seek to generate income by investing in a portfolio of short-term obligations in order to maintain a stable net asset value per unit or minimize principal volatility for investors.”

Liquidity funds, like other private funds, are open only to accredited investors and qualified purchasers (they are not available to retail investors) and are not required to abide by the rules governing mutual funds. Consequently, they may invest in riskier assets, engage in greater levels of liquidity transformation, or concentrate investments more in particular markets or securities than money market funds do. (Liquidity transformation involves using liquid assets, such as cash, to buy harder-to-sell assets, such as certain corporate bonds.) Liquidity funds are commonly used for purposes such as managing cash collateral from securities lending transactions or cash from operations. Potential risks associated with investing in liquidity funds are similar to those of other money funds, including credit, liquidity, and interest rate risks.
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<th>Money Market Funds</th>
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<th>Parallel Managed Accounts to Liquidity Funds</th>
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<tr>
<td><strong>Assets Under Management (AUM)</strong></td>
<td>$3,082 billion as of 12/31/14</td>
<td>$135 billion as of 6/30/14</td>
<td>$150 billion as of 12/31/14&lt;sup&gt;a&lt;/sup&gt;</td>
<td>$288 billion as of 3/31/15</td>
<td>$359 billion as of 3/31/15</td>
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<tr>
<td><strong>Regulation</strong></td>
<td>Subject to regulation by the SEC under the Investment Company Act of 1940; Required to abide by special provisions under the SEC’s Rule 2a-7</td>
<td>Subject to regulation by the OCC under 12 CFR 9.18(b)(4)(iii), the short-term investment fund rule</td>
<td>Regulated under state banking laws</td>
<td>Exempt from restrictions under the Investment Company Act of 1940</td>
<td>Exempt from restrictions under the Investment Company Act of 1940</td>
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<td>Confidential (total AUM reported on Call Reports)</td>
<td>Public&lt;sup&gt;b&lt;/sup&gt;</td>
<td>Confidential</td>
<td>Confidential</td>
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<tr>
<td><strong>Reporting Term</strong></td>
<td>Monthly</td>
<td>Monthly</td>
<td>Quarterly</td>
<td>Quarterly, with monthly data</td>
<td>Quarterly</td>
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<td><strong>Granularity of Holdings Data</strong></td>
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<td>Security-level</td>
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<td><strong>Report Asset Maturity</strong></td>
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<td>✔ by CUSIP</td>
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<td>✔ ✔ ✔</td>
<td>✔ ✔</td>
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<tr>
<td><strong>May Offer Fixed Net Asset Value</strong></td>
<td>✔&lt;sup&gt;c&lt;/sup&gt;</td>
<td>✔</td>
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<td>✔</td>
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<td>✔&lt;sup&gt;d&lt;/sup&gt;</td>
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<td>✔</td>
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<tr>
<td><strong>Report Fund Liabilities</strong></td>
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<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
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<tr>
<td><strong>Subscription/Redemption Data</strong></td>
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<tr>
<td><strong>Classify Liquid/Illiquid Assets</strong></td>
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<td>✔ at portfolio level</td>
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</table>

<sup>SEC=Securities and Exchange Commission, OCC=Office of the Comptroller of the Currency, FDIC=Federal Deposit Insurance Corporation, CUSIP=Committee on Uniform Security Identification Procedures</sup>

<sup>a</sup> For state chartered banks only. National bank charters also report this line item on the Call Report, but provide more detailed reporting through the Monthly Schedule of Short-Term Investment Funds. Does not include uninsured, state-chartered trust banks. Figures from Call Reports.

<sup>b</sup> Call Reports are public, but state laws vary with respect to the financial data they collect and whether those data are held confidentially or made available to the public.

<sup>c</sup> With the exception of institutional prime funds beginning October 2016.

<sup>d</sup> Large funds report borrowing quarterly, all funds report Level 1, 2, 3, and cost-based liabilities annually.

Sources: SEC Form PF, OFR analysis
Since the crisis, regulators have made efforts to improve the quality of data available for money funds. In 2010, the SEC introduced Form N-MFP for money market funds subject to the SEC’s Rule 2a-7, requiring monthly reporting of holdings, and began collecting these data in November 2010. In 2012, the Office of the Comptroller of the Currency (OCC) introduced new rules aligning the reporting for holdings in short-term investment funds managed by nationally-chartered trust banks with the reporting for money market funds on Form N-MFP and began collecting these data in 2013. The Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 required private funds to begin reporting certain information on holdings and activities to the SEC, including liquidity funds. The SEC began collecting liquidity fund data in April 2012 on Form PF. These three filings have significantly improved visibility into the activities of money funds in wholesale funding markets.

**Analysis of Data Filed by Liquidity Funds**

As of March 31, 2015, 42 liquidity funds had filed quarterly data and 20 funds filed annual data on Form PF. There are about $3 trillion managed in money market mutual funds and approximately $300 billion in short-term investment funds (see Figure 1). In total, liquidity fund managers invested $646 billion on behalf of clients, including $288 billion in liquidity funds and $359 billion in parallel managed accounts (see Figure 2). Parallel managed accounts are any managed accounts or other pools of assets managed by an adviser that pursues substantially the same investment objective and strategy and invests side-by-side in substantially the same positions as a private fund.

**Composition of assets and liquidity transformation risks.** Liquidity funds’ largest investments include (see Figure 3):

- U.S. Treasury securities (26 percent),
- bank certificates of deposit (CDs) (16 percent),
- unsecured commercial paper (15 percent), and
- U.S. Treasury and agency security repos (14 percent).

Approximately half of the assets in liquidity funds have maturities of 30 days or less (31 percent of assets have maturities of 7 days or less and an additional 16 percent have maturities between 8 and 30 days) while the other half have maturities of 31 to 397 days. Less than 2 percent of assets have maturities longer than 397 days (see Figure 4).
Although managing assets with longer maturities could imply less liquidity, liquidity transformation risks in assets with longer maturities are a function of the strength of secondary markets for those assets. Treasuries or CDs represent 59 percent of assets managed by liquidity funds with maturities greater than 30 days, while 20 percent are commercial paper.

A comparison of liquidity funds with prime money market funds shows that liquidity funds tend to hold securities with longer maturities. Figure 5 compares the maturity terms for prime money market and liquidity fund securities as of December 31, 2014. Although two-thirds of money market fund securities had final maturities of 30 days or less, only half of liquidity fund securities had this maturity profile. Again, assessing whether assets with longer maturities have less liquidity would require more detail on the securities in questions and analysis of the strength of secondary markets for those assets.

Holdings in liquidity funds differ in significant ways from those in prime money market funds, which are money market funds that primarily invest in corporate debt securities. Liquidity funds tend to hold more Treasuries and have more investments in floating rate notes and other asset classes.

Conversely, prime money market funds tend to have larger investments in CDs, unsecured commercial paper, and bonds issued by government agencies or government-sponsored enterprises (GSEs). The differences between the relative riskiness of these strategies is difficult to judge because of the lack of information on the specific
security composition of liquidity fund holdings (liquidity funds are not currently required to disclose security-level information) and on fund counterparties, particularly for repo transactions. Greater investments in Treasury securities could suggest higher levels of near-term liquidity in liquidity funds, but consideration must also be given to lower levels of liquidity in other investments. Note that the comparison shown in Figure 6 is based on aggregated data, and there may be significant variation in asset composition across individual funds.

Under Statement of Financial Accounting Standards no. 157 (SFAS 157), about 95 percent of liquidity fund assets are classified as Level 2 for fair value measurement, which means that “inputs other than quoted prices” are used to determine their values. The focus on Level 2 assets reflects liquidity funds’ mandate to invest in fixed income securities and is comparable to prime money market funds. In keeping with liquidity funds’ mandate to invest in more liquid assets, less than 0.01 percent of total assets are classified as Level 3, the hardest to value under SFAS 157. Liabilities constitute 2.8 percent of aggregate net asset value, consisting almost entirely of cost-based liabilities.

Leverage. As short-term investment vehicles, liquidity funds have relatively low leverage levels. Only four funds that file quarterly had leverage levels higher than 1.05 times as of March 31, 2015, measured as the ratio of the gross asset value of a fund to its net asset value. The simple average leverage level and weighted average leverage across funds was 1.01. Derivative positions accounted for a negligible percentage of fund assets.

Investor composition. Investors in liquidity funds tend to differ from typical money market fund investors. Money market funds’ institutional and retail clients often include insurance companies, pension plans, and individual U.S. citizens. These sources only account for 6 percent of liquidity funds’ assets under management. About 30 percent of liquidity fund assets are held by other private funds and 31 percent are held by investors outside the United States (see Figure 7). About 16 percent of client assets are categorized as owned by “other” investors.

Investor concentration in liquidity funds tends to be fairly high. Three-fifths of funds that file quarterly are at least 80 percent owned by their top five investors (see Figure 8). Fifteen funds are completely owned by their top five investors and those investors held 60 percent of total fund shares.
Fund redemption rights. Form PF also collects data on the redemption rights of fund investors. Liquidity funds possess many of the liquidity transformation characteristics found in other types of money funds, because they typically promise investors daily or weekly liquidity but invest in longer-term assets. Redemption rights for liquidity funds can differ from those of money market funds, including offering different redemption schedules.

Redemption risks are higher in some funds than in others. Of the 42 funds that file quarterly, 28 offer investors the ability to redeem 100 percent of their shares daily. Four other funds offer full redemption within seven days, and seven others offer redemption for half or more of the portfolio within seven days. Weighted by net asset value, about 73 percent of client assets are available for redemption daily, with another 19 percent available within a week (see Figure 9). This contrasts with the relatively longer maturity profile of liquidity funds outlined in Figure 5.

Although they are not required to, many liquidity funds maintain liquidity levels to meet redemptions that comply with the SEC’s Rule 2a-7. Under Rule 2a-7, prime money market funds are required to hold at least 10 percent of their assets in daily liquid assets and at least 30 percent in weekly liquid assets. Twenty-three of the 42 liquidity funds that file quarterly report that they comply with the risk-limiting conditions of Rule 2a-7, and four state they comply with one or more of Rule 2a-7’s diversification, credit quality, liquidity, or maturity provisions. Among funds that file quarterly, a relatively small percentage reported daily liquidity levels less than 10 percent or weekly liquidity levels less than 30 percent.

Among funds, 56 percent of total assets are considered daily liquid assets, somewhat short of the 73 percent of assets available for daily redemption under the rights outlined in Figure 9, but not inconsistent with practices in money market funds. Some funds that report lower daily and weekly liquidity levels invest in assets with longer maturities, which could increase redemption risks. Redemption and liquidity transformation risks could be diminished for a fund if it retained the right to suspend redemptions or impose gates — about 90 percent of funds that file quarterly retained one or both of these rights.

Could liquidity funds pose a threat to financial stability?

Monitoring money funds and other short-term investment funds is essential to identify excessive risk-taking and improve visibility into wholesale funding markets.
The main financial stability concern linked to liquidity funds is the possibility of runs, similar to those money market funds and certain local government investment pools experienced in 2008. The greater availability of data on liquidity funds, money market funds, and other money funds since 2008 has helped to reduce these risks by increasing the visibility of fund activities for investors and regulators.

Liquidity funds have redemption structures comparable to money market funds. Liquidity transformation risks in liquidity funds overall do not appear to be significantly different from prime money market funds, with greater holdings of Treasury securities offset by holdings of other assets with relatively longer maturity structures and greater holdings of potentially less liquid “other” asset classes. Individual liquidity funds, however, may exhibit greater liquidity transformation risks than average prime money market funds. About three-quarters of assets are redeemable by investors on a daily basis, but only half of invested assets have maturities of less than 30 days. A few funds have relatively higher levels of liquidity transformation and lower levels of daily and weekly liquidity relative to investor redemption rights. Investor concentration levels in many liquidity funds are relatively high, suggesting that redeeming holdings within a short time could have an impact on portfolio liquidity if fund holdings were less liquid, potentially posing risks for investors who may remain in the fund after large redemptions or in the event of market stress.

These risks are somewhat tempered by relatively large liquid asset holdings and the ability of most funds to suspend redemptions or impose redemption gates. The fact that many short-term investments are held in parallel managed accounts also reduces redemption risks, because there are no first-mover advantages — in other words, investors gain no advantage by redeeming fund shares before other investors. Still, these accounts may contain liquidity risks. Lower leverage levels in funds generally reduce concerns about fire sale risks, but some assets with longer maturities may not be readily saleable under certain market conditions, and funds that try to preserve stable net asset values (NAV) may face higher liquidity risks. Concerns may arise if funds offer investors daily liquidity but do not maintain sufficient daily liquidity in their portfolios. Form PF does not collect information about credit quality, so it is difficult to gauge whether fund investments adequately accommodate for credit risks.

After the SEC announced amendments to its rule governing money market funds in July 2014, some market observers speculated that some institutional investors in stable NAV prime money market funds would move their assets to stable NAV liquidity funds, mainly to avoid complications with floating NAV investments and risks associated with the ability to gate or suspend redemptions. Since the announcement of the new rules in July 2014, assets managed in liquidity funds and their parallel managed accounts have increased from $583 billion in June 2014 to $646 billion in March 2015. However, assets managed in money market funds increased more during that period, rising from $2.91 trillion to $3.01 trillion. Assets in prime funds declined from $1.8 trillion in December 2014 to $1.75 trillion in March 2015, probably attributable to tax-payment-related outflows. The SEC’s amended rules will take effect in 2016. Additional market movements, such as the conversion of prime funds to government funds and increased use of liquidity funds, will be important to monitor as the deadline for compliance approaches. The lengthy implementation period may limit the potential for large unanticipated asset outflows.

**Moving Forward**

In its July 2014 amendment to the money market fund rule, the SEC also included a provision aligning the reporting structures for liquidity funds on Form PF with the reporting structure for money market funds on Form N-MFP. This alignment, which will be effective in April 2016, will facilitate analysis of cash and liquidity management across short-term markets using combined data collected on Form N-MFP, Form PF, and the Office of the Comptroller of the Currency’s Monthly Schedule of Short-Term Investment Funds. The OFR’s analysis of new data on bilateral repo transactions, as outlined in the recent OFR brief, “Repo and Securities Lending: Improving Transparency with Better Data,” may also help shed light on these short-term funding markets. The OFR continues to develop its prototype Money Market Fund Monitor to track short-term funding flows.
Endnotes

1 David C. Johnson, Senior Researcher at the Office of Financial Research (david.johnson@treasury.gov). This paper benefited from helpful comments from Viktoria Baklanova, Ted Berg, Jill Cetina, Dagmar Chiella, Greg Feldberg, Alicia Marshall, Rebecca McCaughrin, Matt Reed, and Daniel Stemp.

2 Form PF is a confidential data filing. The OFR obtains Form PF data from the SEC and frequently collaborates with the SEC in the analysis of these data. Neither the SEC nor its staff contributed to this brief.


7 Definition from Form ADV Instructions for Part 1A, p.11. Private funds are defined as funds that would be investment companies but for exclusions under Sections 3(c)(1) or 3(c)(7) of the Act. These sections identify exclusions based in part on the number of investors in a fund, investor type, and restrictions on share offerings. Registered investment advisers regulated by the SEC are required to file Form ADV annually.

8 Accredited investors generally include certain financial institutions (banks, savings and loan associations, insurance companies, investment companies, small business investment companies, and certain employee benefit plans); corporations, trusts or partnerships with more than $5 million in assets; or individual investors meeting specific net asset or income criteria. Individual investors (and their spouses) may be accredited investors if they have $1 million in net assets or annual incomes of more than $200,000. (Married investors may qualify with $300,000 in annual income.) Qualified purchasers generally include individuals or personal trusts with more than $5 million in investible assets and institutional investors with more than $25 million in assets. Accredited investors and qualified purchasers are generally expected to be able to bear the economic risk of investing in funds excluded from the safeguards of the Investment Company Act of 1940.

9 Data on money funds managed by state-chartered trust banks are not collected by the Office of the Comptroller of the Currency.

10 Form PF collects data on all private funds with $150 million or more in assets and collects more detailed information on certain hedge funds, private equity funds, and liquidity funds.

11 Depending on the amount of assets managed by a private fund adviser, liquidity funds are required to either file quarterly or annually. Private fund advisers managing less than $1 billion in combined money market and liquidity fund assets are only required to file fund data annually. Private fund advisers managing $1 billion or more in combined money market and liquidity fund assets are required to file fund data quarterly and must provide additional information on portfolio holdings, portfolio liquidity, fund financing, and composition of investors. Given the greater availability of holdings and investor data in quarterly filings, the data in this analysis largely correspond to quarterly filers. Areas where annual filers are included in the analysis are noted in the document. (Annual filers collectively managed $1.1 billion in assets under management as of December 31, 2014.)

12 Figures for liquidity funds and parallel managed accounts are based on “gross asset value” as defined in the glossary of Form PF. Differences between figures are due to rounding.

13 Includes investment assets in liquidity funds that file quarterly, as of March 31, 2015.

14 A comparison of liquidity funds and prime money market funds excludes nontaxable and government money market funds. Although this is not a perfect comparison of fund types, it is intended to provide a point of comparison between liquidity funds and a common type of money market fund.

15 Values on Form N-MFP are reported as total current amortized cost; values on Form PF are reported as consistent with the way information is reported internally and to current and prospective investors per Instruction 15 on the form.

16 Current data fields for Form PF and Form N-MFP are not perfectly aligned. The following analysis is based on a comparison of Form PF and Form N-MFP data fields, including certain assumptions about comparable assets.

17 Cost-based assets are assets that would be presented in a fund’s financial statements using a measurement attribute other than fair value. For Form PF reporting purposes, cash is considered a cost-based asset. Figures based on data filed in the fourth quarter of 2014.

18 Cost-based liabilities are liabilities measured using an attribute other than fair value, and can include certain payables. For further clarification of the definition of cost-based assets and liabilities as reported on Form PF, please see the answer to Q14.2 in the SEC’s Form PF Frequently Asked Questions: www.sec.gov/divisions/investment/pfrd/pfrdfaq. shml?utm_source-page&utm_medium-financial-reporting-network/insights/2014-updates-form-pf-frequently-asked-questions.aspx&utm_campaign-download.

19 Investors outside the United States include non-U.S. persons, sovereign wealth funds and foreign institutions, and non-U.S. unknowns.

20 Form PF collects data on Question 15 on the percentage of a fund’s shares owned by the fund’s top five investors. The percentage calculation referenced here is the sum of the dollar value of shareholdings of each fund’s top five investors, divided by the gross assets in all funds.

21 Fund terms are constrained by Form PF’s definition of “liquidity fund.” Private funds that do not meet the definition of a liquidity fund must file under other Form PF fund categories.

22 Daily liquid assets consist of cash, direct obligations of the U.S. government, securities that will mature or are subject to a demand feature exercisable and payable within one business day, and receivables scheduled to be paid within one business day.

23 Weekly liquid assets consist of daily liquid assets, government agency discount notes with remaining maturities of 60 days or less, securities that will mature or are subject to a demand feature that is exercisable and payable within five business days, and receivables scheduled to be paid within five business days.

24 As an example of market reaction, Chris Donahue, chief executive officer of Pittsburgh-based Federated Investors, noted in a fourth-quarter 2014 earnings call that Federated is “working on developing privately placed funds in an attempt to mirror existing Federated money market funds to serve the needs of groups of qualified, usually institutional, investors unable to use money funds modified by the new rules.” See Federated Investors Fourth Quarter 2014 Earnings Conference Call Transcript, January 23, 2015 (available at seekingalpha.com/article/2845476-federated-investors-fi-ceo-chris-donahue-on-q4-2014-results-earnings-call-transcript?page=2, accessed June 22, 2015).
