Preparing for Drought While Still Awash with Liquidity

Abstract
This research commentary discusses liquidity in the context of corporate cash portfolios, coming challenges in the post-crisis era, why liquidity reversal may be a systemic concern, and how investors should prepare for the new liquidity equilibrium in a normalized interest rate environment. Our suggestions for corporate cash professionals include the following:

1. *Review and Revise Liquid Portfolio Investment Policy*
2. *Build a Liquidity-based Credit Approved List*
3. *Retool Portfolio Holdings Transparency*
4. *Add Trading Counterparties*
5. *Embrace Electronic Trading*
6. *Turn Challenges Into Opportunities*

Introduction
"Water, water, everywhere, and all the boards did shrink; Water, water, everywhere, nor any drop to drink."

Dramatic as it sounds, this Ancient Mariner's Rhyme may somewhat foreshadow the future liquidity state of our financial markets. Unconventional central bank policies in the wake of the 2007-2008 financial crisis have pumped tremendous excess liquidity into the financial system. Meanwhile, scars from the crisis and ensuing financial regulations resulted in the disappearance of many financial intermediaries and reduced capacity at the ones that remain. As Federal Reserve officials prepare to conclude asset purchases next month, the question of how to remove excess liquidity from the markets without causing systemic consequences should be a major topic of interest to all participants.

In this research commentary, we will discuss liquidity in the context of corporate cash portfolios, the new challenges to liquidity in the post-crisis era, why liquidity reversal may be a systemic concern, and how corporate treasury professionals can be better prepared for the new liquidity equilibrium in a normalized interest rate environment.

Liquidity and Corporate Treasury Management
The simplest definition of liquidity is the ability to convert something into cash quickly. Most people agree that liquidity is essential to firms, markets, and financial assets, yet the term often means different things to different people. For example, 'market liquidity' measures how quickly an asset can be bought or sold without an impact on its current price. The speed of trade execution and the bid-ask spread are also important measures of liquidity. In addition, daily trading volume, average trade size, the number of market makers, and the number of potential market participants are all relevant measures of liquidity.

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In corporate treasury portfolio management, liquidity is the name of the game, and having adequate liquidity on hand to satisfy planned and unforeseen liquidity needs is a paramount objective. To meet these needs, corporate treasurers typically utilize non-interest bearing transactional accounts (NIBTAs) and money market demand accounts (MMDA) at relationship banks alongside balances in stable net asset value (NAV) money market mutual funds. Other tools include term deposits and Eurodollar deposits, as well as direct purchases of or separately management accounts (SMAs) containing short-term government, corporate, and bank obligations, repurchase agreements, and mortgage-backed or asset-backed securities.

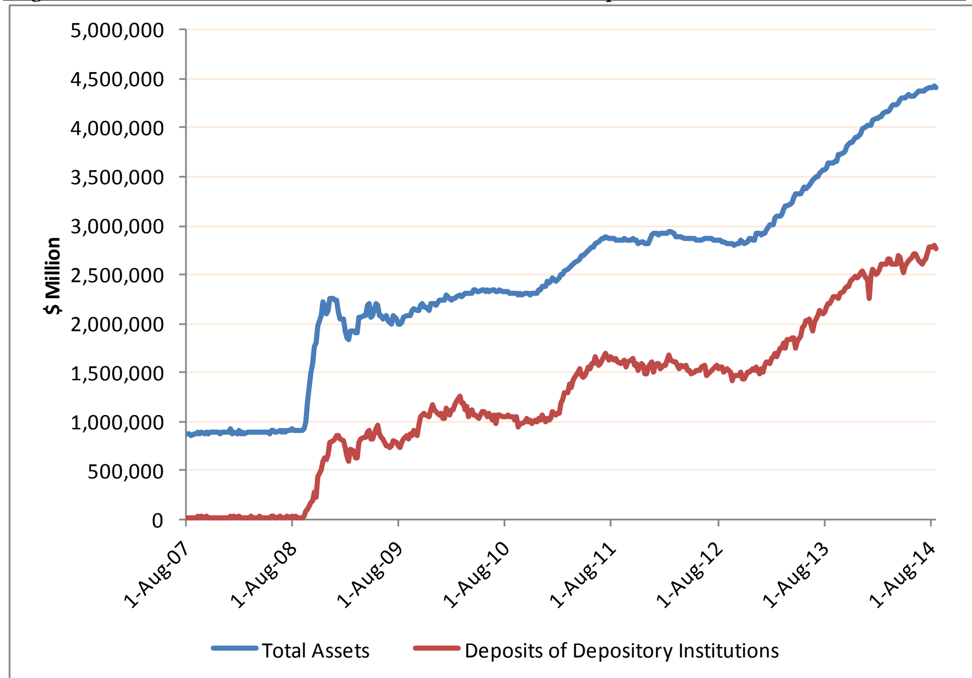
Liquidity Challenges are on the Horizon

World markets appear awash in liquidity, but we must point out that this state is transitory. Currently, our fragile economic recovery still warrants monetary policy accommodations and deadlines for the implementation of many of the toughest bank regulations remain months or years away. Appetite has not fully returned for businesses to resume borrowing and for banks to aggressively lend. In short, the supply of liquidity remains extremely high while demand is low, which may lead many market participants to fail to fully appreciate the challenges that we may face in a normalized interest rate and credit environment.

It is inevitable that liquidity dynamics will change, and these changes will directly impact holders of NIBTAs and MMDAs, institutional MMF shareholders, and those who hold short-term securities, either through direct purchase or SMAs. Thus, we need to gain a better appreciation of the coming challenges in order to prepare ourselves before the tide begins to turn.

Reversal of Excess Liquidity: As Figure 1 below indicates, balance sheet expansion at the Federal Reserve has directly contributed to the excess liquidity in the financial system. Compared to a mere $891 billion at the end of 2007, the Federal Reserve's balance sheet now stands at $4,432 billion, or five times as large. Over the same period, deposits at the Federal Reserve rose from only $11.4 billion to $2.7 trillion, a growth rate of 162 times.

Figure 1: Federal Reserve Balance Sheet and Deposits at the Federal Reserve



Source: Recent Balance Sheet Trends, the Federal Reserve Board, as of August 21, 2014

Once the Fed's balance sheet stops growing in October, the market's attention will turn to when and how the central bank will shed this excess liquidity. Although outright asset sales are unlikely in the near future, the Fed may use other means to drain excess liquidity in the economy, including tools to keep funds in the Federal Reserve System. Suffice it to say that the reversal of the Fed's unprecedented liquidity measures will have a liquidity impact on all financial instruments. At the very least, government and mortgage securities will soon lose an extremely active buyer.

Recent regulatory and market developments will also present new challenges to corporate treasury liquidity managers. Banks are being encouraged to fund their activities with more dependable long-term deposits and less from transient deposits and wholesale means. The implementation of a floating NAV requirement on institutional prime MMFs in two years may diminish that product's utility as a liquidity management tool. Liquidity premium on marketable securities may also increase, resulting in higher cost of liquidity and leading to both challenges and opportunities.

None of the developments confronting liquidity management should come as surprise to treasury management professionals today. However, with the presumed end to the Federal Reserve's quantitative easing in October and the inevitable reversal of the secular bull market in bonds at some point, financial markets may experience severe withdrawal symptoms when excess liquidity in the system starts to drain. Scars of the financial crisis and the bitter medicines administered thereafter, unnoticeable while liquidity is still plentiful, may become apparent when the tide goes out.

More Liquidity Is Less Liquidity: During the financial crisis, many financial institutions, despite adequate capital levels, experienced liquidity problems that eventually led to stress in the short-term funding markets. Subsequent new regulations led to many stringent liquidity requirements for these firms, including the liquidity coverage ratio (LCR), net stable funding ratio (NSFR), supplemental leverage ratio, central clearing of derivatives, and curbed proprietary trading. Many of the rules are meant to improve the liquidity profiles of the regulated entities, but in complying with the new rules, financial intermediaries are now less able and/or willing to provide liquidity to the rest of the economy. With a finite supply of "high quality liquid assets (HQLAs)", the assets that go on the balance sheets of banks, broker-dealers and insurance companies leave less of the same for investors at large.

The aftermath of the financial crisis also led to self-rationalization of capital market activities at those surviving broker-dealers and commercial banks with capital markets activities. In addition to reducing or exiting proprietary trading activities, many broker-dealers are keeping fewer bonds in inventory, making fewer markets, and dropping trading counterparties. At least for the foreseeable future, this liquidity fortification process by financial intermediaries may lead to reduced overall market liquidity, especially alongside the Fed's policy actions.

Scarcity of Liquid Assets: At the same time, the financial crisis resulted in ratings downgrades of a number of sovereign borrowers and global banks, and the regulatory push towards orderly bank liquidation and bail-ins of creditors led to a second wave of bank ratings downgrades. As a result, HQLAs are rapidly becoming an endangered species, resulting in a general deterioration in market liquidity.

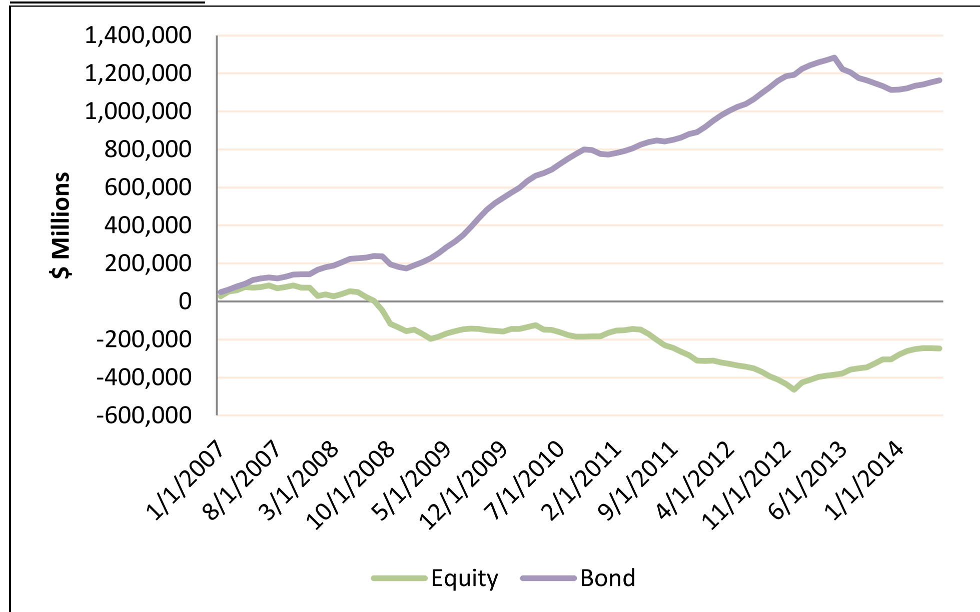
To worsen the issue, many foreign central banks and regulated financial intermediaries continue to hoard HQLAs. Issuers with strong credit metrics took advantage of the low yield environment by lengthening the overall term of their debt issuance, leaving less supply of issuance for short-term investors. Lastly, the reduction of mortgage portfolios at Fannie Mae and Freddie Mac and improved fiscal conditions within the Federal government both led to lower issuance of high-quality government securities.

Floating NAVs and the Gates and Fees Dilemma: For institutional cash accounts that rely on money market funds to manage their liquidity, the SEC's new rule requiring institutional prime and tax-exempt funds to float their NAVs and to impose optional fees and gates on all prime funds within two years may result in meaningful asset migration that add further challenges to liquidity. If prime funds experience serious outflows, liquidity in commercial paper, short-term corporate notes, bank obligations and municipal variable rate debt may deteriorate. Meanwhile, the cost of liquidity in the form of yield differential between prime and stable NAV government funds will likely widen to discourage the influx of cash into government funds.

The Rise of Bond Funds – A Systemic Concern

Another pressing issue that consumes much of policymakers' time and energy today is the question of how to manage a soft landing of the bull market in fixed income assets where bond mutual funds and exchanged traded funds are concerned.

Figure 2: Cumulative Monthly Flows in Equity and Bond Mutual Funds since December 2006



Source: ICI Summary: Estimated Long-Term Mutual Fund Flows Data as of August 20, 2014

Investment Company Institute mutual fund flow data, as depicted in Figure 2, shows $1.1 trillion of net flows into bond funds since December 2006 accounting for their $3.5 trillion balance as of August 2014. Equity funds, despite an extended bull market since March 2009, have failed to attract mutual fund assets and have lost $247 billion to outflows over the same period. As the Fed's accommodative monetary policy comes to an end, the potentially rapid rise in bond yields and reduction in bond prices may result in a liquidity crunch if bond funds fail to sell securities quickly enough to satisfy redemption.

Despite preemptive moves by mutual fund managers to boost cash cushions to 8.7% (compared to the historical average of 5.4%), large fund managers including BlackRock are appealing to regulators to forestall a potential liquidity crisis with withdrawal limits[1]. The Financial Times has reported that the Federal Reserve may have taken up the subject in discussing whether imposing exit fees on bond funds could avert a potential run[2].

Worries about a potential collapse of the bond market due to rapid share redemption by mutual fund investors may be unwarranted, as the 22% concentration of bond funds among all mutual funds is approximately the same as historical averages. However, whether the market can accommodate the inevitable end to the bull market in bonds in an orderly fashion remains to be seen. Concerns from asset managers and Fed officials highlight the fact that, in a market short on liquid assets and short on liquidity providers, market liquidity may evaporate in an instant. The historically tight spread compression of credit investments to risk-free assets also may exacerbate the pain as lower quality credits tend to be even less liquid in a volatile market.

Getting Ready for a Less Liquid World
Rather than sitting on the sidelines, there are a number of steps that corporate treasury professionals can take in order to be prepared for a reduction in market liquidity, and they may also be able to take advantage of a higher liquidity premium to improve portfolio return.

1. **Review and Revise Liquid Portfolio Investment Policy:** A review should address expected structural changes in deposits and money market funds. Create a liquidity budget and segregate the portfolio into overnight, planned, and strategic cash brackets and assign strategies accordingly. Identify alternative or supplemental means of liquidity tools such as repurchase agreements or separately managed accounts. Reduce or remove structurally complex securities with lower liquidity characteristics.

2. **Build a Liquidity-based Credit Approved List:** For bank counterparties and separate account investments, the approved list should take into account perceived market liquidity in addition to credit quality. Use market-based signals such as equity prices, market implied ratings and credit default swaps to gauge relative liquidity. Monitor the liquidity status of each approved credit and make approval decisions accordingly.

3. **Retool Portfolio Holdings Transparency:** Lack of transparency breeds panic and irrational behavior in a liquidity event. A portfolio can be well served by a bottom-up portfolio transparency system that monitors pertinent credit signals of underlying securities and related markets. This applies to deposit accounts and counterparties, MMFs, and SMAs.

4. **Add Trading Counterparties:** As large broker-dealers, laden with heavy regulatory requirements, reduce liquidity commitments to cash investors, a new crop of middle market, flow-only brokers are filling the void. As the new players tend to have low credit ratings or are not rated, counterparty approval and pre-trade compliance become essential for risk management. Refrain from securities without a secondary market supported by multiple brokers.

5. **Embrace Electronic Trading:** New trading platforms now allow investors to view offerings and seek competitive bids simultaneously and anonymously. Although large block trades still may require a phone conversation, many smaller, otherwise illiquid lots, may have better liquidity in electronic trading. Some such platforms allow investors to trade with each other with nominal dealer crossing to preserve anonymity.

6. **Turn Challenges Into Opportunities:** Knowing that there are two sides to a coin, investors with longer time horizons and higher risk tolerance may benefit from a reduced liquidity market by exploring the price differences between liquid and less liquid securities. Both LCR and NSFR will push up the relative yield on term deposits and securities slightly above 30 days and 12 months, respectively. Floating the NAV on prime funds also will widen the spread of commercial paper to discount notes of the same maturity. Exploring relative value created by these "man-made" liquidity constraints may result in better portfolio performance without undue liquidity risk. SMAs may be the most flexible vehicle in accomplishing these objectives.

[1] Cordell Eddings, Bond Liquidity Risk in $3.5 Trillion Funds Defused by Cash Pile, The Washington Post with Bloomberg, August 17, 2014.

[2] Tom Braithwaite et al., Fed Looks at Exit Fees on Bond Funds, The Financial Times, June 16, 2014.

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