Maintaining Liquidity in Corporate Cash Accounts

How to achieve a portfolio with higher credit quality *and* higher return potential than a money market fund.

Abstract

Separate accounts may offer greater return and reduced credit risk compared to prime money market funds. By examining current and future liquidity needs and the potential for significant deviations from cash flow projections, corporate treasurers may construct portfolios with direct investments in high-quality credits that satisfy current, future and emergency liquidity needs – and still may achieve higher returns than money market funds while eliminating the shareholder risk of pooled vehicles.

Introduction

Events of the past 6 years have shriveled yields for deposit and money market products, while at the same time increasing investors' risk of both principal loss and interruption in liquidity. This year the SEC is expected to make a final ruling on the direction of Rule 2a-7, which could materially alter the utility and the yield potential of money market funds by introducing floating net asset values, liquidity gates, or some combination of both. Corporate treasurers who traditionally have maintained all of their cash in bank deposits or overnight products may be forced to examine other options to maintain a competitive (or merely positive) return and avoid incurring inappropriate concentrations of credit risk. A major hurdle in this process is satisfying the need for daily liquidity given businesses' varying degrees of clarity with respect to future cash needs. Fortunately, with a carefully planned maturity structure and an organized strata of liquid investment vehicles, separately managed account portfolios (SMAs) can offer a high degree of liquidity that may satisfy most treasurers' requirements.

Types of Liquidity

For some corporate treasurers, liquidity is a term reserved for bank deposits or money market fund shares, and they consider other investment vehicles to be illiquid by comparison. Such a definition is needlessly limiting. Furthermore, as we saw in 2008, this definition is not uniformly true for all banks or money market funds. More than five years removed from the peak of the crisis, the quality of banks' mortgage assets has improved dramatically, but the advent of the FDIC's "Orderly Liquidation Authority" makes 2008-style bank rescues all but impossible in the future. For money funds, the future of the fixed NAV and unlimited daily liquidity is far from clear. For any corporate cash instrument, from bank deposits to mutual funds to direct investments, a close examination is required to understand liquidity characteristics.

October 27, 2011
Revised: February 27, 2014

Marc St. Andre
Senior Portfolio Manager
617.630.8100
mstandre@capitaladvisors.com

Leaving analysis of banks and money market funds for other discussions, let's simply consider them liquid for our purposes here. In addition to the organic liquidity that may be accessed by withdrawals from a bank account or redemptions from money market investments, future organic liquidity may be maintained in securities with scheduled maturities that correspond to forecasted liquidity needs, whether overnight or months down the road. Unfortunately, perfect predictions of future cash needs are rare; a simple ladder of maturities to correspond with forecasted spending plans is not likely to resolve all treasurers' liquidity requirements.

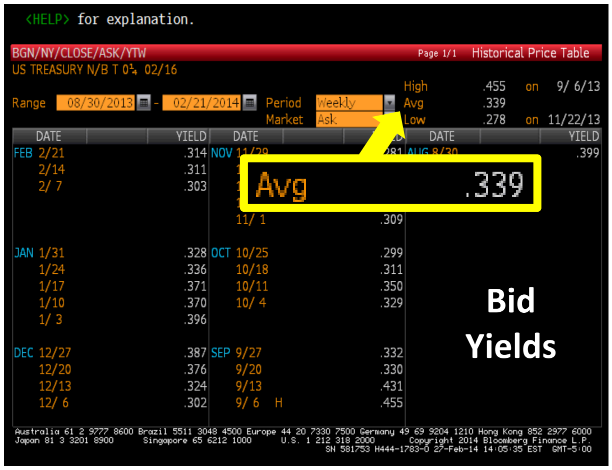
The SEC has been faced with this same issue when considering how to avoid future liquidity crises in money funds. In 2008, the aftermath of the Lehman failure caused a tidal wave of institutional prime money market fund redemptions that required a blanket government guarantee to save the money market fund industry. The SEC's 2010 revisions to Rule 2a-7 sought to fortify liquidity protection through secondary sources of liquidity, in addition to the organic liquidity found in same-day cash holdings. Unlike a money fund, separately managed accounts are not at risk of liquidity interruptions due to shareholder runs, as a single investor controls all of the assets directly. On the other hand, an SMA is in some ways akin to a custom money market fund; with this in mind, the SEC's 2010 amendments to money market fund rules that sought to build liquidity protection provide us a useful definition when considering how to define certain liquidity parameters for SMAs.

Logically, the SEC's Weekly Liquid Asset definition in Rule 2a-7 includes any securities that mature (or are put-able) within five business days, but it also includes Treasury securities of *any* maturity, as well as government agency securities with maturities up to 60 days:

> Weekly Liquid Assets means:
> (i) Cash;
> (ii) Direct obligations of the U.S. Government;
> (iii) Government Securities that are issued by a person controlled or supervised by and acting as an instrumentality of the Government of the United States pursuant to authority granted by the Congress of the United States that:
>   (A) Are issued at a discount to the principal amount to be repaid at maturity; and
>   (B) Have a remaining maturity date of 60 days or less; or
> (iv) Securities that will mature or are subject to a Demand Feature that is exercisable and payable within five Business Days.[1]

The inclusion of securities *longer* than one week in a definition of weekly liquidity may seem odd. However, U.S. Government backed debt qualifies because secondary markets for such holdings are extremely liquid; that is, the bid-to-ask spread or the difference in price at which an investor could buy and sell the same security, is extremely small. Chart 1 shows the bid and the ask yields for two-year Treasury notes for the past six months, and an average bid-to-ask spread of less than half of one basis point[2]:

Chart 1



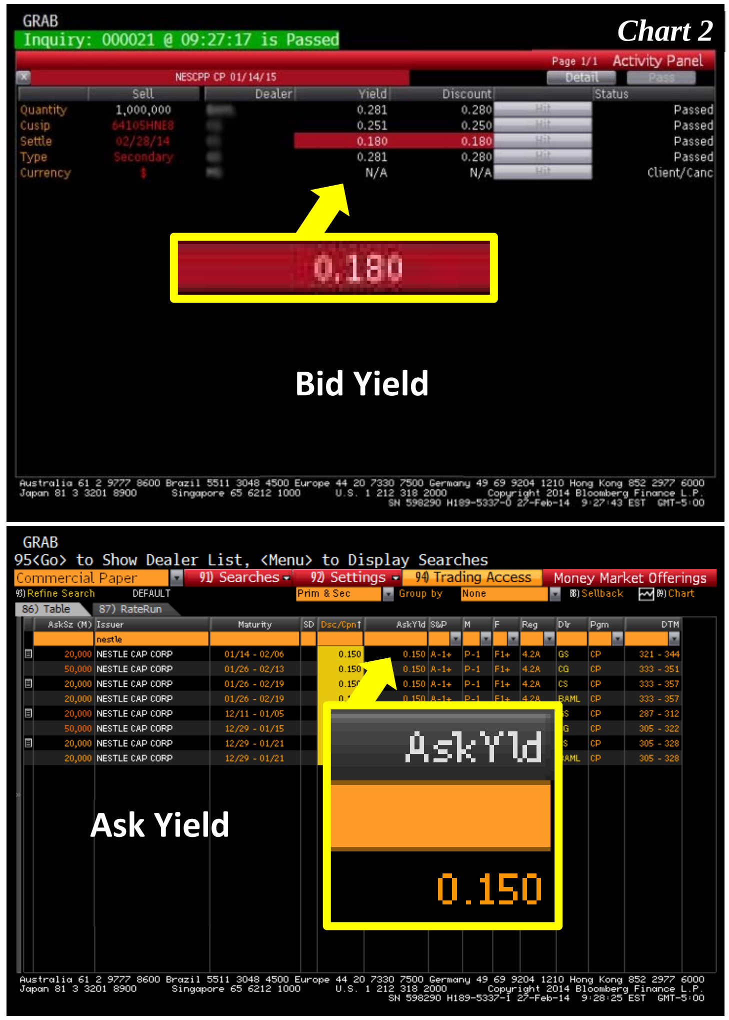
This high degree of trading efficiency confirms what many treasurers instinctively know already – that U.S. Treasury securities are among the most liquid instruments in the world. Just as money market funds do, separately managed accounts can build additional reserves of liquidity in the form of weekly maturities and U.S. Government debt that can be sold easily and efficiently should unexpected liquidity needs arise.

Clarity from the Fed: "Exceptionally Low Rates"

Despite the high degree of efficiency that U.S. Treasury debt markets offer investors, treasurers also must be mindful of interest rate risk. In some economic environments, predictions on the direction of interest rates may be difficult and inconsistent. While today's historically low short-term rates are excruciating from an interest income perspective, U.S. central bankers' explicit intentions to maintain overnight rates at current levels through 2014 (and for a "considerable period" after they taper the quantitative easing program away later this year) leave us an important upside. The Fed's transparency on future overnight rate expectations affords treasurers a valuable opportunity to extend maturities without credible fears of upward interest rate pressures in the short-term. While Treasury yields for 3-year and 5-year notes are likely to be volatile, risks of market value declines due to significant increases in short-term interest rates remain immaterial. U.S. Government debt – at times even debt with maturities longer than a year – may appropriately be considered a reliable source of liquidity in cash investment portfolios.

Other Secondary Liquidity Sources

U.S. Treasuries aren't the only source of secondary liquidity – there are other types of debt that also exhibit the same secondary market efficiency, and moreover, the same tendency to appreciate during times of severe market stress. Since 2008, the housing GSEs, Fannie Mae and Freddie Mac, have benefited from explicit capital support from the U.S. Treasury. With perpetual access to a total of $200 billion[3], secondary market characteristics for short-term GSE debt are nearly identical to Treasuries. Therefore, GSEs should logically be included as a secondary liquidity option along with other types of government-backed securities.

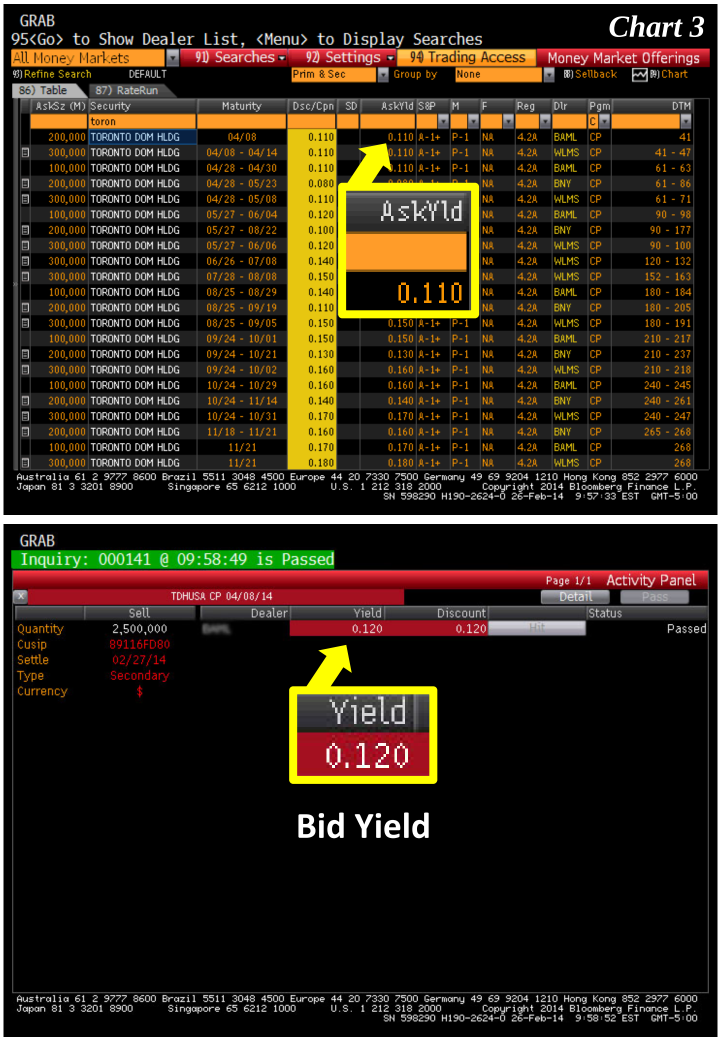


In addition to U.S. government debt, debt issued by the largest, highest quality non-financial issuers also exhibits strong secondary market liquidity characteristics. Chart 2 [4] shows bid and ask levels for Nestle paper maturing in 11 months. For Nestle paper (a suitable proxy for the universe of the strongest non-financial issuers) the bid-to-ask spread of just three basis points highlights that buying and selling Nestle is nearly as efficient as buying and selling Treasuries. As a result, we can characterize debt of the highest quality non-financial issuers as a secondary liquidity source on which we can draw should cash flow requirements surpass previous forecasts; these securities could be easily and efficiently liquidated should the need arise. Again, we also have the Fed to thank for their explicit intentions to keep short-term rates low; with overnight rates pegged at current levels, we believe there is very little likelihood that an early sale of paper like the Nestle piece in Chart 2 could lead to a principal loss, provided that the sale didn't occur immediately after purchase.

Different Lengths to Maturity

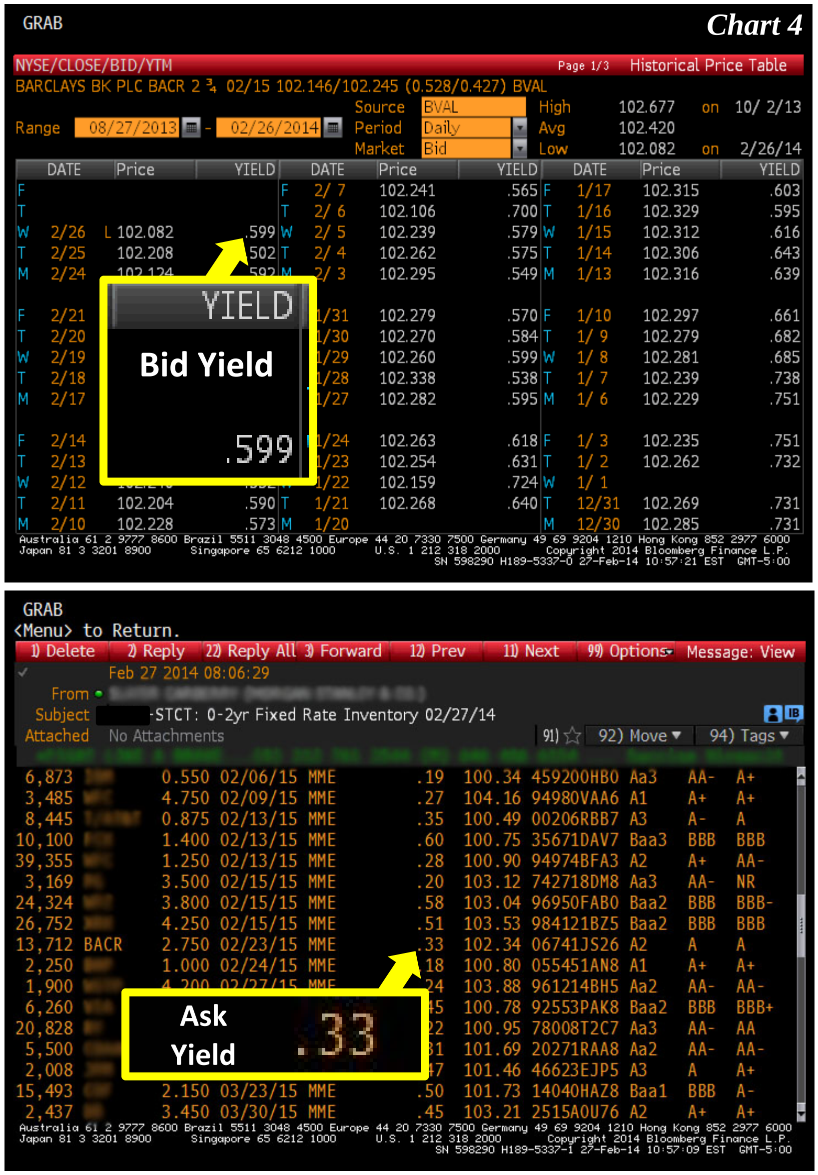
Debt of other types of issuers, such as banks, brokerages, insurance companies, finance companies or structured products, may often trade less efficiently in secondary markets. Corporate treasurers should view such investments through a different lens to determine the ability of such vehicles to provide backup and emergency liquidity in separately managed accounts – because they often cannot.

However, some of the largest, strongest banks domiciled in certain stable countries, even during episodes of market duress, do offer efficient secondary market trading characteristics with tight bid-to-ask spreads for very short maturities. Chart 3 shows a bid-ask spread for 1-month TD Bank commercial paper of just 1 basis point, a degree of secondary market efficiency effectively equal to Treasuries.[5]



But as maturities lengthen, even for the very strongest banks, the bid-to-ask tends to widen. While the credit strength of certain banks may not come into question (a very select group of banks indeed), careful attention must be paid to the potential for future liquidity needs and the ability to easily and efficiently liquidate holdings before maturity. As maturities extend longer on the yield curve, bid-to-ask spreads indicate that broker-dealers may be somewhat more hesitant to take bank bonds into their inventories. Bloomberg's generic pricing information suggests an extremely wide bid-to-ask spread for a high-quality Barclays note maturity in 12 months in Chart 4.[6] Diligent traders are likely to achieve considerably better results than Bloomberg's generic data suggest, but not so much better as to approach the trading efficiency of a high-quality non-financial note.

The higher bid-to-ask spread shown in Chart 4 is a typical trading cost and is not indicative of any particular stresses that Barclays is currently facing – in fact it compares favorably to bid-to-ask levels for many other banks. Still, this serves as a reminder that if an investor needs to liquidate notes of even the highest quality financial issuers before maturity, they almost certainly will be faced with some degree of market inefficiency if the maturities are longer than a few months.



Less Liquid Names

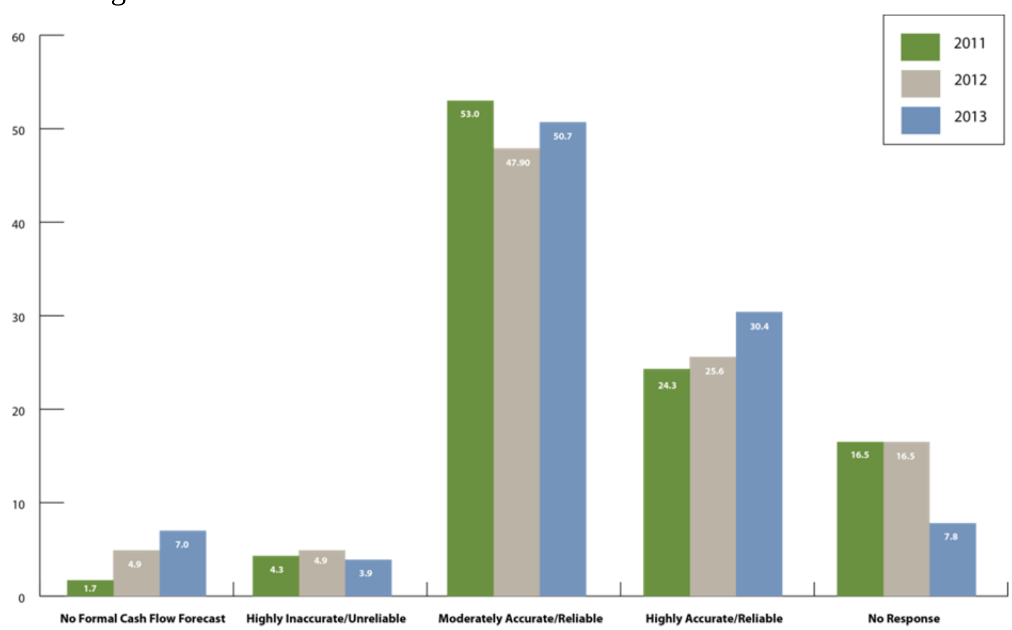
As you would expect, bid-to-ask spreads widen considerably as we move down the spectrum to issuers for which Moody's or Standard & Poor's assign lower ratings, or to those financial issuers with weaker underlying asset quality or weaker access to capital markets during periods of stress. A careful credit analysis may present issuers whose debt is "money good" and provide the necessary absence of default risk for a capital preservation portfolio. However, secondary market trading activity may be sufficiently weak in such investments that they should be considered only if a treasurer is 100% certain of not needing that cash before maturity. Such certainty about future cash needs is likely rare. Furthermore, whatever secondary market efficiencies that may exist today for lower-quality issuers could vanish entirely if global geopolitical events should unexpectedly worsen.

Constructing a Portfolio

Lengthening the maturity ladder beyond the same-day horizon of bank accounts or money market funds may offer measurably higher returns without sacrificing safety of principal and still allow us to meet current, future and emergency liquidity demands. Reviewing the categories of liquidity layers reviewed above, we have the following tiers available to construct a custom portfolio with several layers of liquidity protection:

Organic Liquidity	Deposits in bank accounts and MMF shares
Weekly Liquidity	The "Weekly Liquid Assets" definition borrowed from the SEC: holdings that are due/putable in 5 days, Agencies due in 60 days, and all Treasuries.
Secondary Liquidity	Agency securities longer than 60 days and debt of the strongest non-financial companies. Both tend to appreciate in times of stress.
Emergency Liquidity	A very small selection of the strongest banks. Short maturities trade very efficiently…longer maturities somewhat less efficiently.
Other	Securities that are "money good", but that don't provide any liquidity advantages

Cash requirements vary significantly from one business to the next, as substantiated by a joint survey that Capital Advisors Group and Strategic Treasurer conducted earlier this year. Just over 50% of respondents indicated that their cash forecasts are moderately accurate/reliable and more than 30% indicated that forecasts are highly accurate or reliable, which leaves nearly 20% of those surveyed who have forecasts that are something other than reliable:[7]



To illustrate how SMAs can provide liquidity with scheduled maturities and high concentrations of securities with excellent secondary market liquidity, we'll offer three examples to cover a range of reliabilities with respect to cash flow forecasting.

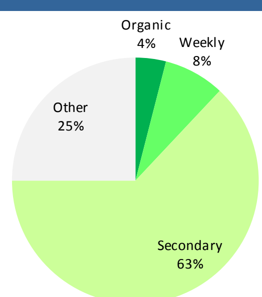
Example 1: Cash Forecasts Moderately Accurate/Reliable[8]

In our first example, monthly cash demands for the company are consistent, but other large cash requirements are a perpetual possibility as the business' cash flows can fluctuate. Uncertainty over the amount of future cash needs pushes the structure to maintain more available cash as time goes on by building an ever-increasing buffer in excess of anticipated cash needs, and by maintaining a significant percentage in highly liquid government-backed investments.

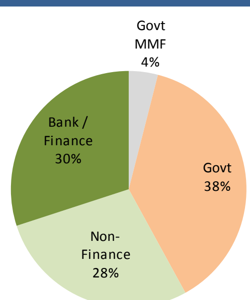
SAMPLE PORTFOLIO #1
2/27/2014

TYPE	% OF HOLDINGS	INSTRUMENT	INVESTMENT COST	YIELD TO MATURITY	MATURITY DATE	PURCHASE DATE	DAYS TO MATURITY
Govt MMF	4.00%	TREASURY MONEY MARKET FUND	$4,000,000	0.01%	N/A	N/A	OVERNIGHT
Govt	8.00%	OVERNIGHT TREASURY REPO	$8,000,000	0.13%	3/3/2014	2/28/2014	4
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.19%	5/31/2014	2/28/2014	93
Non-Financial	5.00%	NON-FINANCIAL COMMERCIAL PAPER	$5,000,000	0.18%	7/31/2014	2/28/2014	154
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.21%	8/31/2014	2/28/2014	185
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.29%	9/30/2014	2/28/2014	215
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.24%	10/31/2014	2/28/2014	246
Non-Financial	5.00%	NON-FINANCIAL COMMERCIAL PAPER	$5,000,000	0.23%	11/30/2014	2/28/2014	276
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.30%	12/31/2014	2/28/2014	307
Non-Financial	8.00%	NON-FINANCIAL CORPORATE NOTE	$8,000,000	0.28%	1/31/2015	2/28/2014	338
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.40%	2/28/2015	2/28/2014	366
Govt	12.00%	US AGENCY NOTE (CALLABLE)	$12,000,000	0.21%	3/31/2015	2/28/2014	397
Non-Financial	5.00%	NON-FINANCIAL CORPORATE NOTES	$5,000,000	0.36%	10/31/2015	2/28/2014	611
Non-Financial	5.00%	NON-FINANCIAL CORPORATE NOTES	$5,000,000	0.45%	1/31/2016	2/28/2014	703
Govt	18.00%	US AGENCY NOTE (CALLABLE)	$18,000,000	0.40%	2/28/2016	2/28/2014	731
		TOTAL	$100,000,000	0.27%			364

Liquidity Types



Asset Types



Cash Flow Projection Planner

DATE	BALANCE (TOTAL FROM TOP)	CASH OUTFLOW	RECOMMENDED PURCHASES	EXCESS LIQUIDITY	REPOSITION AVAILABILITY
	$100,000,000			$4,000,000	
Mar-14	$100,000,000	($3,000,000)	$8,000,000	$9,000,000	9.28%
Apr-14	$97,000,000	($2,000,000)		$7,000,000	7.37%
May-14	$95,000,000	($2,000,000)	$5,000,000	$10,000,000	10.75%
Jun-14	$93,000,000	($2,000,000)		$8,000,000	8.79%
Jul-14	$91,000,000	($3,000,000)	$5,000,000	$10,000,000	11.36%
Aug-14	$88,000,000	($3,000,000)	$5,000,000	$12,000,000	14.12%
Sep-14	$85,000,000	($3,000,000)	$5,000,000	$14,000,000	17.07%
Oct-14	$82,000,000	($2,000,000)	$5,000,000	$17,000,000	21.25%
Nov-14	$80,000,000	($3,000,000)	$5,000,000	$19,000,000	24.68%
Dec-14	$77,000,000	($3,000,000)	$5,000,000	$21,000,000	28.38%
Jan-15	$74,000,000	($3,000,000)	$8,000,000	$26,000,000	36.62%
Feb-15	$71,000,000	($3,000,000)	$5,000,000	$28,000,000	41.18%
Mar-15	$68,000,000	($3,000,000)	$12,000,000	$37,000,000	56.92%
Apr-15	$65,000,000	($3,000,000)		$34,000,000	54.84%
May-15	$62,000,000	($2,000,000)		$32,000,000	53.33%
Jun-15	$60,000,000	($3,000,000)		$29,000,000	50.88%
Jul-15	$57,000,000	($2,000,000)		$27,000,000	49.09%
Aug-15	$55,000,000	($3,000,000)		$24,000,000	46.15%
Sep-15	$52,000,000	($3,000,000)		$21,000,000	42.86%
Oct-15	$49,000,000	($3,000,000)	$5,000,000	$23,000,000	50.00%
Nov-15	$46,000,000	($3,000,000)		$20,000,000	46.51%
Dec-15	$43,000,000	($3,000,000)		$17,000,000	42.50%
Jan-16	$40,000,000	($2,000,000)	$5,000,000	$20,000,000	52.63%
Feb-16	$38,000,000	($3,000,000)	$18,000,000	$35,000,000	100.00%
Mar-16	$35,000,000	($2,000,000)		$33,000,000	100.00%
Apr-16	$33,000,000	($3,000,000)		$30,000,000	

Weighted Average Maturity: 364 Days
Weighted Average Yield: 0.27%

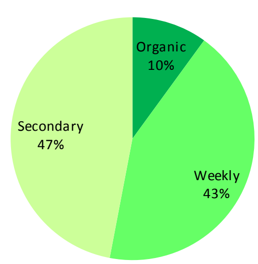
Example 2: Cash Forecasts Less Than Accurate/Reliable[8]

In our second example the company faces a perpetual possibility of M&A activity or other large capital spending plans. The portfolio structure provides for these unpredictable liquidity needs by maintaining a significant amount of the holdings in maturities coming due in five business days and in Treasuries, with the remainder maturing in 90 days or less. This structure creates a considerably more cautious credit profile than even the most conservative prime money fund.

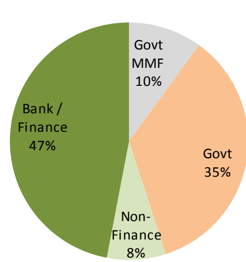
SAMPLE PORTFOLIO #2
2/27/2014

TYPE	% OF HOLDINGS	INSTRUMENT	INVESTMENT COST	YIELD TO MATURITY	MATURITY DATE	PURCHASE DATE	DAYS TO MATURITY
Govt MMF	10.00%	TREASURY MONEY MARKET FUND	$10,000,000	0.01%	N/A	N/A	OVERNIGHT
Govt	20.00%	OVERNIGHT TREASURY REPO	$20,000,000	0.13%	3/3/2014	2/28/2014	4
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.08%	3/6/2014	2/28/2014	7
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.10%	3/6/2014	2/28/2014	7
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.14%	3/31/2014	2/28/2014	32
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.14%	4/30/2014	2/28/2014	62
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.15%	4/30/2014	2/28/2014	62
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.15%	4/30/2014	2/28/2014	62
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.15%	4/30/2014	2/28/2014	62
Non-Financial	4.00%	NON-FINANCIAL COMMERCIAL PAPER	$4,000,000	0.15%	5/31/2014	2/28/2014	93
Non-Financial	4.00%	NON-FINANCIAL COMMERCIAL PAPER	$4,000,000	0.15%	5/31/2014	2/28/2014	93
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.16%	5/31/2014	2/28/2014	93
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.17%	5/31/2014	2/28/2014	93
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.19%	5/31/2014	2/28/2014	93
Bank	4.00%	LARGE BANK COMMERCIAL PAPER	$4,000,000	0.19%	5/31/2014	2/28/2014	93
Govt	5.00%	US TREASURY NOTE	$5,000,000	0.14%	2/28/2015	2/28/2014	366
Govt	5.00%	US TREASURY NOTE	$5,000,000	0.20%	8/31/2015	2/28/2014	550
Govt	5.00%	US TREASURY NOTE	$5,000,000	0.32%	2/28/2016	2/28/2014	731
		TOTAL	$100,000,000	0.15%			119

Liquidity Types



Asset Types



Cash Flow Projection Planner

DATE	BALANCE (TOTAL FROM TOP)	CASH OUTFLOW	RECOMMENDED PURCHASES	EXCESS LIQUIDITY	REPOSITION AVAILABILITY
	$100,000,000			$10,000,000	
Mar-14	$100,000,000	?	$32,000,000	$42,000,000	42.00%
Apr-14	$100,000,000	?	$19,000,000	$61,000,000	61.00%
May-14	$100,000,000	?	$24,000,000	$85,000,000	85.00%
Jun-14	$100,000,000	?		$85,000,000	85.00%
Jul-14	$100,000,000	?		$85,000,000	85.00%
Aug-14	$100,000,000	?		$85,000,000	85.00%
Sep-14	$100,000,000	?		$85,000,000	85.00%
Oct-14	$100,000,000	?		$85,000,000	85.00%
Nov-14	$100,000,000	?		$85,000,000	85.00%
Dec-14	$100,000,000	?		$85,000,000	85.00%
Jan-15	$100,000,000	?		$85,000,000	85.00%
Feb-15	$100,000,000	?	$5,000,000	$90,000,000	90.00%
Mar-15	$100,000,000	?		$90,000,000	90.00%
Apr-15	$100,000,000	?		$90,000,000	90.00%
May-15	$100,000,000	?		$90,000,000	90.00%
Jun-15	$100,000,000	?		$90,000,000	90.00%
Jul-15	$100,000,000	?		$90,000,000	90.00%
Aug-15	$100,000,000	?	$5,000,000	$95,000,000	95.00%
Sep-15	$100,000,000	?		$95,000,000	95.00%
Oct-15	$100,000,000	?		$95,000,000	95.00%
Nov-15	$100,000,000	?		$95,000,000	95.00%
Dec-15	$100,000,000	?		$95,000,000	95.00%
Jan-16	$100,000,000	?		$95,000,000	95.00%
Feb-16	$100,000,000	?	$5,000,000	$100,000,000	100.00%
Mar-16	$100,000,000	?		$100,000,000	100.00%
Apr-16	$100,000,000	?		$100,000,000	

Weighted Average Maturity: 119 Days
Weighted Average Yield: 0.15%

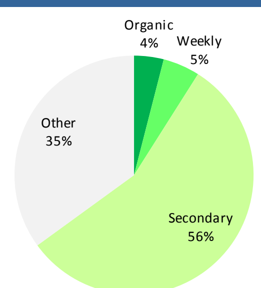
Example 3: Cash Forecasts Highly Accurate/Reliable[8]

It is rare for a company to have perfect insight into future cash needs, but when a portion of the cash is not needed for the foreseeable future, a company may look to add to an already diversified portfolio with a layer of investments that they are certain won't be sold before maturity. Example 3 looks at a portfolio similar to Example 1, but with the addition of longer maturities of non-financial issuers and the strongest banks. Note the larger slice of "Other", which represents securities with higher bid-ask spreads.

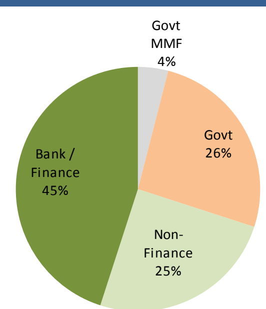
SAMPLE PORTFOLIO #3
2/27/2014

TYPE	% OF HOLDINGS	INSTRUMENT	INVESTMENT COST	YIELD TO MATURITY	MATURITY DATE	PURCHASE DATE	DAYS TO MATURITY
Govt MMF	4.00%	TREASURY MONEY MARKET FUND	$4,000,000	0.01%	N/A	N/A	OVERNIGHT
Govt	5.00%	OVERNIGHT TREASURY REPO	$5,000,000	0.13%	3/6/2014	2/28/2014	7
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.19%	5/31/2014	2/28/2014	93
Non-Financial	5.00%	NON-FINANCIAL COMMERCIAL PAPER	$5,000,000	0.18%	7/31/2014	2/28/2014	154
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.21%	8/31/2014	2/28/2014	185
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.24%	10/31/2014	2/28/2014	246
Non-Financial	5.00%	NON-FINANCIAL COMMERCIAL PAPER	$5,000,000	0.23%	11/30/2014	2/28/2014	276
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.30%	12/31/2014	2/28/2014	307
Non-Financial	5.00%	NON-FINANCIAL CORPORATE NOTE	$5,000,000	0.28%	1/31/2015	2/28/2014	338
Bank	5.00%	LARGE BANK COMMERCIAL PAPER	$5,000,000	0.40%	2/28/2015	2/28/2014	366
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.36%	3/31/2015	2/28/2014	397
Non-Financial	5.00%	NON-FINANCIAL CORPORATE NOTES	$5,000,000	0.36%	10/15/2015	2/28/2014	595
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.58%	10/15/2015	2/28/2014	595
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.61%	10/15/2015	2/28/2014	595
Bank	5.00%	LARGE BANK CORPORATE NOTE	$5,000,000	0.63%	10/15/2015	2/28/2014	595
Non-Financial	5.00%	NON-FINANCIAL CORPORATE NOTES	$5,000,000	0.45%	1/31/2016	2/28/2014	703
Govt	21.00%	US AGENCY NOTE (CALLABLE)	$21,000,000	0.40%	2/28/2016	2/28/2014	731
		TOTAL	**$100,000,000**	**0.35%**			**426**

Liquidity Types



Asset Types



Cash Flow Projection Planner

DATE	BALANCE (TOTAL FROM TOP)	CASH OUTFLOW	RECOMMENDED PURCHASES	EXCESS LIQUIDITY	REPOSITION AVAILABILITY
	$100,000,000			$4,000,000	
Mar-14	$100,000,000	($3,000,000)	$5,000,000	$6,000,000	6.19%
Apr-14	$97,000,000	($2,000,000)		$4,000,000	4.21%
May-14	$95,000,000	($2,000,000)	$5,000,000	$7,000,000	7.53%
Jun-14	$93,000,000	($2,000,000)		$5,000,000	5.49%
Jul-14	$91,000,000	($3,000,000)	$5,000,000	$7,000,000	7.95%
Aug-14	$88,000,000	($3,000,000)	$5,000,000	$9,000,000	10.59%
Sep-14	$85,000,000	($3,000,000)		$6,000,000	7.32%
Oct-14	$82,000,000	($2,000,000)	$5,000,000	$9,000,000	11.25%
Nov-14	$80,000,000	($3,000,000)	$5,000,000	$11,000,000	14.29%
Dec-14	$77,000,000	($3,000,000)	$5,000,000	$13,000,000	17.57%
Jan-15	$74,000,000	($3,000,000)	$5,000,000	$15,000,000	21.13%
Feb-15	$71,000,000	($3,000,000)	$5,000,000	$17,000,000	25.00%
Mar-15	$68,000,000	($3,000,000)	$5,000,000	$19,000,000	29.23%
Apr-15	$65,000,000	($3,000,000)		$16,000,000	25.81%
May-15	$62,000,000	($2,000,000)		$14,000,000	23.33%
Jun-15	$60,000,000	($3,000,000)		$11,000,000	19.30%
Jul-15	$57,000,000	($2,000,000)		$9,000,000	16.36%
Aug-15	$55,000,000	($3,000,000)		$6,000,000	11.54%
Sep-15	$52,000,000	($3,000,000)		$3,000,000	6.12%
Oct-15	$49,000,000	($3,000,000)	$20,000,000	$20,000,000	43.48%
Nov-15	$46,000,000	($3,000,000)		$17,000,000	39.53%
Dec-15	$43,000,000	($3,000,000)		$14,000,000	35.00%
Jan-16	$40,000,000	($2,000,000)	$5,000,000	$17,000,000	44.74%
Feb-16	$38,000,000	($3,000,000)	$21,000,000	$35,000,000	100.00%
Mar-16	$35,000,000	($2,000,000)		$33,000,000	100.00%
Apr-16	$33,000,000	($3,000,000)		$30,000,000	

Weighted Average Maturity: 426 Days
Weighted Average Yield: 0.35%

Conclusion

An understanding of the reliability of cash flow forecasts, coupled with an understanding of secondary sources of liquidity beyond bank deposits and money market funds, may provide a comfortable liquidity buffer for future cash requirements whether they are predictable or not. With well-designed liquidity buffers to resolve changing cash needs, SMAs may offer treasurers increased yield potential as well as more precise control of credit risk as compared to bank accounts and money market funds.

---

[1] Amended SEC Rule 2a-7(a)(32), http://www.sec.gov/rules/final/2010/ic-29132.pdf

[2] Source: Bloomberg

[3] Source: FHFA and U.S. Treasury. http://www.fhfa.gov/Default.aspx?Page=364

[4] Source: Bloomberg

[5] Source: Bloomberg

[6] Source: Bloomberg

[7] Source: Joint CAG and Strategic Treasurer 2013 Liquidity Risk Survey

[8] Sample purchases do not represent actual market offerings. Securities typify those in which Capital Advisors Group invests and may differ from purchased securities. The yield presented for each security represents estimates of attainable yield levels as of 2/28/14 and may not reflect your account's results were CAG actually managing your money. Account structure may differ from the sample structures included. All information is subject to change without notice. Not reflective of management fees.