

Strategy

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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 seven years have shriveled yields for deposit and money market products, while at the same time have increased investors' risk of both principal loss and interruption in liquidity. Last year, the SEC's amendments to Rule 2a-7 resulted in material changes to the utility and the yield potential of money market funds by introducing a combination of floating net asset values, liquidity gates, and redemption fees. Corporate treasurers who traditionally have maintained all of their cash in bank deposits or overnight products will 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 with 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 seven 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 prime money funds, the fixed NAV is a feature of the past while unlimited daily liquidity is no longer guaranteed. For any corporate cash instrument, from bank deposits to mutual funds to direct investments, a close examination is required to understand liquidity characteristics.

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 puttable) 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:

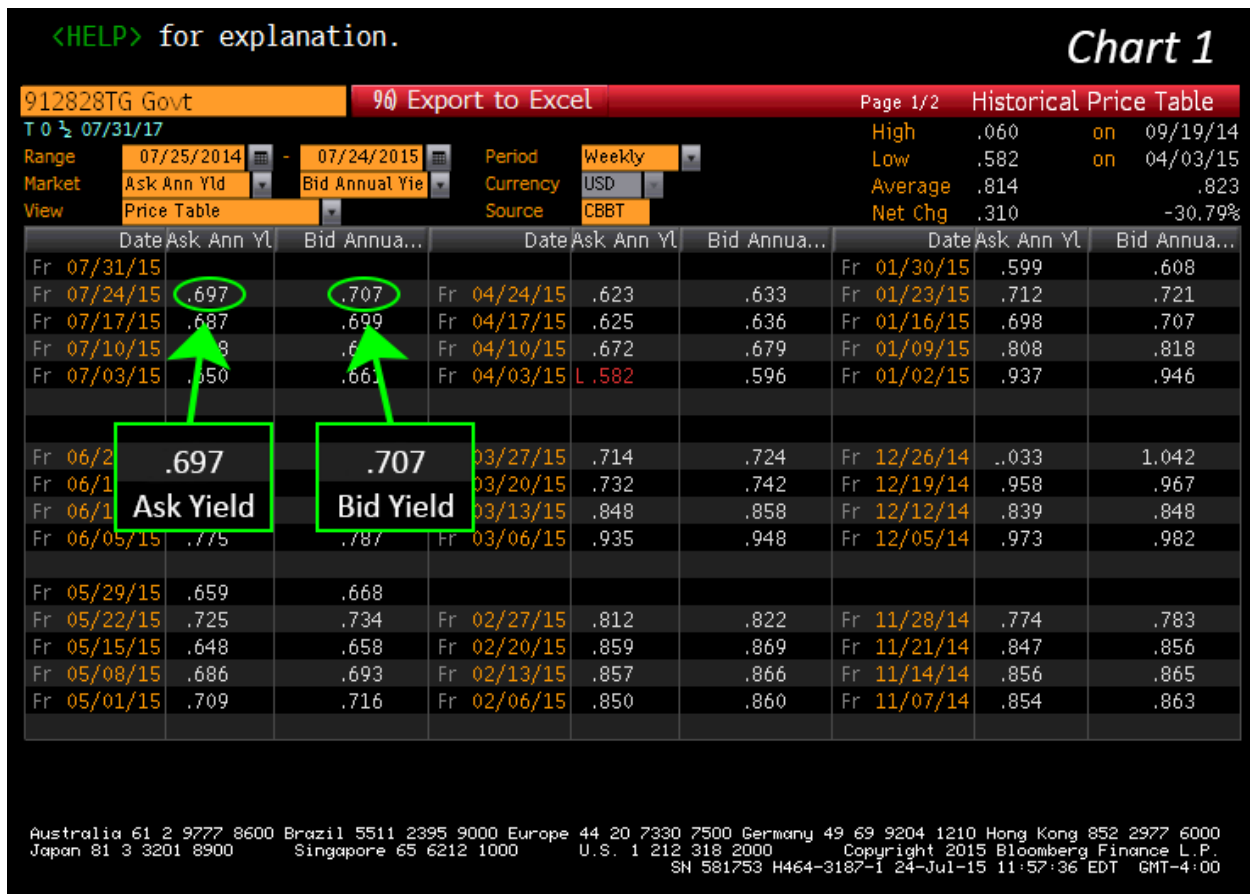
- i. Cash;
- ii. Direct obligations of the U.S. Government;
- iii. Government Securities that are issued by a person controlled or supervised by and acting as an instrumentality of the Government of the United States pursuant to authority granted by the Congress of the United States that:
 - a. Are issued 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 ask yields for two-year Treasury notes for the past eight months, and an average bid-to-ask spread of just one basis point.²

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.

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

² Source: Bloomberg



Clarity from the Fed

The Fed's transparency on future overnight rate expectations affords treasurers a valuable opportunity to extend maturities beyond money market fund averages without credible fears of rapid interest rate increases. While overnight rate targets are likely to rise, the slow pace of future hikes indicated by the Fed suggests that the risk of sharp market value declines remains very low. 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. **Charts 2 & 3** show bid and ask levels for Nestle paper maturing in 6 months. For Nestle paper (a suitable proxy for the universe of the strongest non-financial issuers) the bid-to-ask spread of just one basis point 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

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

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.

GRAB **Chart 2**

95<Go> to Show Dealer List, <Menu> to Display Searches

Commercial Paper | 91) Searches | 92) Settings | 93) Trading Access | Money Market Offerings

Refine Search: DEFAULT | Prim & Sec | Group by: None | Sellback | Chart

AskSz (M)	Issuer	Maturity	SD	Dsc/Cpn	AskYld	S&P	M	F	Reg	Dlr	Pgm	DTH
30,000	NESTLE CAP CORP	02/01 - 02/29		0.290	0.290	A-1+	P-1	F1+	4.2A	CS	CP	181 - 2
30,000	NESTLE CAP CORP	02/01 - 02/29		0.290	0.290	A-1+	P-1	F1+	4.2A	BAML	CP	181 - 2
50,000	NESTLE CAP CORP	02/01 - 02/23		0.290	0.290	A-1+	P-1	F1+	4.2A	CG	CP	181 - 2

0.290
Ask Yield

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P.
SN 598290 G260-5860-0 04-Aug-15 8:56:40 EDT GMT-4:00

GRAB **Chart 3**

Inquiry: 000053 @ 08:55:29 is Client Cancelled

Workflow | Setup | Page 1/1 | Activity Panel

NESCPP CP 02/01/16 | Detail | Pass

	Sell	Dealer	Yield	Discount		Status
Quantity	5,000,000	CS	0.331	0.330	Hit	Passed
Cusip	64105GB11	CG	0.300	0.300	Hit	Passed
Settle	08/05/15	BAML	N/A	N/A	Hit	Client/Canc
Type	Secondary	JPM	N/A	N/A	Hit	Client/Canc
Currency	\$	MS	N/A	N/A	Hit	Rejected

0.300
Bid Yield

Australia 61 2 9777 8600 Brazil 5511 2395 9000 Europe 44 20 7330 7500 Germany 49 69 9204 1210 Hong Kong 852 2977 6000
Japan 81 3 3201 8900 Singapore 65 6212 1000 U.S. 1 212 318 2000 Copyright 2015 Bloomberg Finance L.P.
SN 598290 G260-5860-1 04-Aug-15 8:55:35 EDT GMT-4:00

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 4 shows a bid-ask spread for 3-month Swedbank commercial paper of just one and a half basis points, a degree of secondary market efficiency effectively equal to Treasuries.⁴

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.

Chart 5 suggests an extremely wide bid-to-ask spread for a high-quality TD note maturing in 12 months.

⁴ Source: Bloomberg



This higher bid-to-ask spread shows a typical trading cost and is not indicative of any particular stresses that TD 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

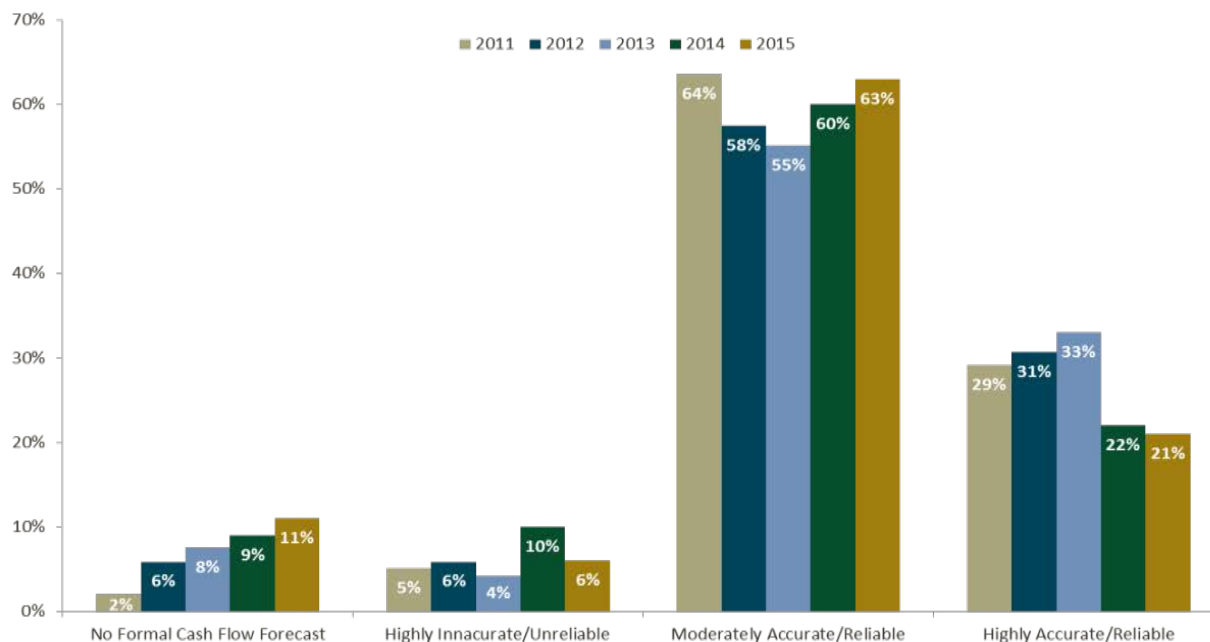
As you would expect, bid-to-ask spreads widen considerably as we move down the spectrum to issuers for which Moody's or Standard & Poor's assign lower ratings, or to those financial issuers with weaker underlying asset quality or weaker access to capital markets during periods of stress. A careful credit 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 or payable 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 60% of respondents indicated that their cash forecasts are moderately accurate/reliable and more than 20% indicated that forecasts are highly accurate or reliable, which leaves nearly 20% of those surveyed who have forecasts that are something other than reliable:⁵



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.

⁵ Source: Joint CAG and Strategic Treasurer 2015 Liquidity Risk Survey

Example 1: Cash Forecasts Moderately Accurate/Reliable⁶

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
LIQUIDITY FORECASTING ANALYSIS
7/31/2015

SAMPLE PORTFOLIO							
TYPE	% OF HOLDINGS	INSTRUMENT	INVESTMENT COST	YIELD TO MATURITY	MATURITY DATE	SETTLEMENT DATE	DAYS TO MATURITY
Govt MMF	6.00%	Treasury Money Market Fund	\$6,000,000	0.01%	N/A	N/A	OVERNIGHT
Govt	17.00%	Treasury / Agency Repurchase Agreement	\$17,000,000	0.19%	8/1/2015	7/31/2015	1
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.25%	8/5/2015	7/31/2015	5
Non-Finance	4.00%	Non-Financial Corporate/CP Issuer	\$4,000,000	0.21%	9/1/2015	7/31/2015	32
Non-Finance	4.00%	Non-Financial Corporate/CP Issuer	\$4,000,000	0.24%	9/1/2015	7/31/2015	32
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.28%	9/22/2015	7/31/2015	53
Non-Finance	5.00%	Non-Financial Corporate/CP Issuer	\$5,000,000	0.29%	10/9/2015	7/31/2015	70
Bank	4.50%	Global Bank Corporate/CP Issuer	\$4,500,000	0.29%	10/9/2015	7/31/2015	70
Bank	4.50%	Global Bank Corporate/CP Issuer	\$4,500,000	0.31%	10/9/2015	7/31/2015	70
Bank	4.50%	Global Bank Corporate/CP Issuer	\$4,500,000	0.35%	11/13/2015	7/31/2015	105
Bank	4.50%	Global Bank Corporate/CP Issuer	\$4,500,000	0.39%	11/13/2015	7/31/2015	105
Govt	2.00%	Government Agency Note	\$2,000,000	0.17%	11/20/2015	7/31/2015	112
Non-Finance	5.00%	Non-Financial Corporate/CP Issuer	\$5,000,000	0.27%	11/27/2015	7/31/2015	119
Non-Finance	5.00%	Non-Financial Corporate/CP Issuer	\$5,000,000	0.33%	12/4/2015	7/31/2015	126
Govt	3.00%	Government Agency Note	\$3,000,000	0.18%	12/21/2015	7/31/2015	143
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.32%	12/22/2015	7/31/2015	144
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.46%	1/15/2016	7/31/2015	168
Bank	3.00%	Global Bank Corporate/CP Issuer	\$3,000,000	0.50%	2/25/2016	7/31/2015	209
Bank	3.00%	Global Bank Corporate/CP Issuer	\$3,000,000	0.64%	3/30/2016	7/31/2015	243
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.60%	4/1/2016	7/31/2015	245
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.53%	5/20/2016	7/31/2015	294
Bank	2.00%	Global Bank Corporate/CP Issuer	\$2,000,000	0.70%	6/15/2016	7/31/2015	320
Non-Finance	2.00%	Non-Financial Corporate/CP Issuer	\$2,000,000	0.63%	7/15/2016	7/31/2015	350
Govt	3.00%	Government Agency Note (Callable)	\$3,000,000	0.50%	8/15/2016	7/31/2015	381
TOTAL			\$100,000,000	0.32%			106

Recommended 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 7/24/15 and may not reflect your account's results were CAG actually managing your money. Account structure may differ from the recommended structure above. All information is subject to change without notice.

PORTFOLIO CHARACTERISTICS		CASH FLOW PROJECTION PLANNER			
<p>Issuer Types</p> <p>Liquidity Types</p>	<p>Maturity Distribution</p>				
DATE	BALANCE	BURN RATES	RECOMMENDED PURCHASES	EXCESS LIQUIDITY	REPOSITION AVAILABILITY
Aug-15	\$100,000,000			\$6,000,000	
Sep-15	\$97,000,000	(\$3,000,000)	\$20,000,000	\$23,000,000	23.71%
Oct-15	\$95,000,000	(\$2,000,000)	\$14,000,000	\$44,000,000	47.31%
Nov-15	\$93,000,000	(\$3,000,000)	\$16,000,000	\$57,000,000	63.33%
Dec-15	\$90,000,000	(\$2,000,000)	\$11,000,000	\$66,000,000	75.00%
Jan-16	\$88,000,000	(\$2,000,000)	\$3,000,000	\$67,000,000	77.91%
Feb-16	\$86,000,000	(\$3,000,000)	\$3,000,000	\$67,000,000	80.72%
Mar-16	\$83,000,000	(\$2,000,000)	\$3,000,000	\$68,000,000	83.95%
Apr-16	\$81,000,000	(\$2,000,000)	\$3,000,000	\$69,000,000	87.34%
May-16	\$79,000,000	(\$3,000,000)	\$3,000,000	\$69,000,000	90.79%
Jun-16	\$76,000,000	(\$2,000,000)	\$2,000,000	\$69,000,000	93.24%
Jul-16	\$74,000,000	(\$2,000,000)	\$2,000,000	\$69,000,000	95.83%
Aug-16	\$72,000,000	(\$3,000,000)	\$3,000,000	\$69,000,000	100.00%
Sep-16	\$69,000,000	(\$2,000,000)		\$67,000,000	100.00%
Oct-16	\$67,000,000	(\$2,000,000)		\$65,000,000	100.00%
Nov-16	\$65,000,000	(\$3,000,000)		\$62,000,000	100.00%
Dec-16	\$62,000,000	(\$2,000,000)		\$60,000,000	100.00%
Jan-17	\$60,000,000	(\$2,000,000)		\$58,000,000	100.00%
Feb-17	\$58,000,000	(\$3,000,000)		\$55,000,000	100.00%
Mar-17	\$55,000,000	(\$2,000,000)		\$53,000,000	100.00%
Apr-17	\$53,000,000	(\$2,000,000)		\$51,000,000	100.00%
May-17	\$51,000,000	(\$2,000,000)		\$49,000,000	100.00%
Jun-17	\$49,000,000	(\$2,000,000)		\$47,000,000	100.00%
Jul-17	\$47,000,000	(\$2,000,000)		\$45,000,000	

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Example 3: Cash Forecasts Highly Accurate/Reliable⁷

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.



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Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	1.02%	8/15/2016	7/31/2015	381
Bank	3.00%	Global Bank Corporate/CP Issuer	\$3,000,000	0.75%	9/15/2016	7/31/2015	412
Non-Finance	3.00%	Non-Financial Corporate/CP Issuer	\$3,000,000	0.85%	10/15/2016	7/31/2015	442
Bank	3.00%	Global Bank Corporate/CP Issuer	\$3,000,000	1.00%	11/15/2016	7/31/2015	473
Bank	3.00%	Global Bank Corporate/CP Issuer	\$3,000,000	1.15%	12/15/2016	7/31/2015	503
TOTAL			\$100,000,000	0.43%			161

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Nov-15	\$95,000,000	(\$2,000,000)	\$13,000,000	\$35,000,000	37.63%
Dec-15	\$93,000,000	(\$3,000,000)	\$13,000,000	\$45,000,000	50.00%
Jan-16	\$90,000,000	(\$2,000,000)	\$8,000,000	\$51,000,000	57.95%
Feb-16	\$88,000,000	(\$2,000,000)	\$4,000,000	\$53,000,000	61.63%
Mar-16	\$86,000,000	(\$3,000,000)	\$3,000,000	\$53,000,000	63.86%
Apr-16	\$83,000,000	(\$2,000,000)	\$3,000,000	\$54,000,000	66.67%
May-16	\$81,000,000	(\$2,000,000)	\$3,000,000	\$55,000,000	69.62%
Jun-16	\$79,000,000	(\$3,000,000)	\$3,000,000	\$55,000,000	72.37%
Jul-16	\$76,000,000	(\$2,000,000)	\$3,000,000	\$56,000,000	75.68%
Aug-16	\$74,000,000	(\$2,000,000)	\$3,000,000	\$57,000,000	79.17%
Sep-16	\$72,000,000	(\$3,000,000)	\$3,000,000	\$57,000,000	82.61%
Oct-16	\$69,000,000	(\$2,000,000)	\$3,000,000	\$58,000,000	86.57%
Nov-16	\$67,000,000	(\$2,000,000)	\$3,000,000	\$59,000,000	90.77%
Dec-16	\$65,000,000	(\$3,000,000)	\$3,000,000	\$59,000,000	95.16%
Jan-17	\$62,000,000	(\$2,000,000)	\$3,000,000	\$60,000,000	100.00%
Feb-17	\$60,000,000	(\$2,000,000)	\$58,000,000	\$58,000,000	100.00%
Mar-17	\$58,000,000	(\$3,000,000)	\$55,000,000	\$55,000,000	100.00%
Apr-17	\$55,000,000	(\$2,000,000)	\$53,000,000	\$53,000,000	100.00%
May-17	\$53,000,000	(\$2,000,000)	\$51,000,000	\$51,000,000	100.00%
Jun-17	\$51,000,000	(\$2,000,000)	\$49,000,000	\$49,000,000	100.00%
Jul-17	\$49,000,000	(\$2,000,000)	\$47,000,000	\$47,000,000	100.00%
Jul-17	\$47,000,000	(\$2,000,000)	\$45,000,000	\$45,000,000	

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⁷ 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 7/24/15 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.

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.

About Us

Capital Advisors Group, Inc. is an independent investment advisor specializing in institutional cash investments, risk management, and debt financing.

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

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

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

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