Enhanced cash and liquidity management

Strategy Spotlight

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The liquidity market backdrop

Following the Global Financial Crisis (GFC) in 2008, short-term bond yields fell to near-zero levels resulting in minimal returns for cash allocations. Yields bottomed in 2009 in the United States (at roughly 0.25% per annum) and remained subdued until 2015 when they slowly started their climb back to relevancy. As of Q1 2019, the overnight USD rate is approximately 2.39% while the one-month and three-month yields are at 2.37% and 2.36%, respectively.[1] The Federal Reserve is expected to continue unwinding its quantitative easing policy, and short-term yields could rise further in 2019. Meanwhile, most capital market strategists are forecasting lower returns given the aging equity bull market. With this tempered outlook, it becomes even more important to ensure that cash is invested in an optimal fashion and that every available basis point is collected. In this Strategy Spotlight, we focus on how to increase returns on cash held in derivative overlays and operational liquidity pools.

Inefficiencies within overnight sweep vehicles

Portfolios utilizing derivative overlays require cash for variation margins (i.e., the daily mark-to-market of derivative instruments such as futures contracts) and for meeting initial margin requirements (IMR) to satisfy collateral levels set by the exchange. Cash held in a client's custodian account that is not pledged to meet IMR can be considered part of a "cash buffer" to support the derivative instruments against adverse market moves. In addition to cash held on hand to meet the liquidity requirements of overlay strategies, pension clients also manage pools of operating cash for their entire plan. This liquidity pool is used for subscriptions and redemptions to managers, fee payments and benefit payments to pensioners. Most clients utilize their custodian bank's short-term investment fund (STIF) to invest this cash. Operating cash requirements can be episodic in nature and larger cash flows tend to be known in advance. In other words, the average maturity of the underlying STIF investments does not often align well with the forecast for future cash needs. To put it more directly, we believe clients are overpaying for liquidity.

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Furthermore, STIF vehicles can encumber the cash in periods of crisis. Specifically, a gate provision allows a fund to restrict redemptions to prevent dramatic drawdowns in times of panic, which is a by-product of episodes during the GFC where STIF vehicles were not able to accommodate the volume of redemption requests from investors. Given that, does it make sense to have the entire liquidity pool invested in a STIF vehicle? Clients are likely sacrificing incremental yield on their cash by being extremely liquid and over-invested at the short end of the interest rate curve. By allocating different tranches of liquidity to varying tenors on the interest rate curve, clients can increase their return and be more efficient with the investment on their cash, both in their liquidity pool and derivative overlay accounts.

While STIF investments are operationally efficient, there is an opportunity to achieve a higher yield through more thoughtful cash investing. Examples of representative STIF vehicles are shown in Exhibit 1. These are merely a subset of funds available and they by no means encompass the entire STIF universe. By comparison, displayed in Exhibit 2 are current T-Bill and T-Bond yields. Notice that even the shortest duration security listed in Exhibit 2 is comparable to, if not greater than, the gross yields offered by typical STIF vehicles.[2]

Exhibit 1: Examples of representative STIF vehicles[1]

FUND	TICKER	YIELD (GROSS)	FEES	YIELD (NET)	DURATION
State Street Institutional U.S. Government Money Market Fund	GVMXX U.S. Equity	2.43%	0.12%	2.31%	0.22
Dreyfus Government Securities Cash Management - Institutional	DIPXX U.S. Equity	2.46%	0.22%	2.24%	0.31
JPMorgan 100% U.S. Treasury Securities Money Market Fund	JTSXX U.S. Equity	2.31%	0.08%	2.23%	0.29

Exhibit 2: Current T-Bill and T-Bond yields

TENOR	YIELD
Current Overnight	2.39%
1 month T-Bill	2.37%
3 month T-Bill	2.36%
6 month T-Bill	2.45%
1 Year T-Bill	2.58%
U.S. 2 Year	2.58%
U.S. 3 Year	2.55%
U.S. 5 Year	2.55%

> *Russell Investments' enhanced cash strategy can serve as a customizable, highly liquid, more efficient (ability to "pledge" securities), and higher-yielding replacement for the custodian's STIF vehicle.*

What solutions does Russell Investments offer?

Russell Investments offers short-term cash mandates that aim to provide a cash equivalent return but are separately managed. These are not one-size-fits-all funds like STIF vehicles; they can be customized to meet a client's risk tolerance and liquidity needs. Russell Investments has a 25-year history of managing cash investment funds. Unlike STIF vehicles that can contain gate provisions, separate account assignments are extremely liquid, even in periods of crisis. This allows clients to invest cash that won't be required immediately into higher-yielding securities. Russell Investments' standard cash fund can serve as a higher-yielding replacement for the custodian's STIF vehicle. The Enhanced Cash program can be tailored to meet a client's short-term liquidity needs, *while also* providing incremental yield by investing further out on the yield curve. Two portfolio examples are displayed in Exhibit 3.[3] Our standard cash investment strategy has a duration of 0.5 years and a yield of 2.5%, whereas the Enhanced Cash strategy has a duration of 2.2 years and a yield of 2.7%. By altering the allocation between sectors, the Enhanced Cash portfolio picks up an additional 20 basis points of yield. A cash pool of $100 million would benefit from an additional $200,000 per year due to this increase in yield.

Exhibit 3: Portfolio examples

Custodial STIF

AVERAGE	DURATION	AVERAGE YIELD (GROSS)
STIF	0.27	2.4%

Russell Investments Cash "Standard"

SECTOR	ALLOCATION	CONTRIBUTION TO DURATION	CONTRIBUTION TO YIELD
Treasury	0.55	0.34	1.37
Agency	0.35	0.10	0.84
Credit	0.10	0.05	0.27
Portfolio	**100%**	**0.50**	**2.50**

Russell Investments Enhanced Cash

SECTOR	ALLOCATION	CONTRIBUTION TO DURATION	CONTRIBUTION TO YIELD
Treasury	64%	1.42	1.64
Agency	16%	0.34	0.41
Credit	20%	0.45	0.61
Portfolio	**100%**	**2.20**	**2.70**

Provided for illustrative purposes only. Actual results may vary.

Operational considerations

Operationally, all cash flows (e.g., variation margins, subscriptions, redemptions, collateral requirements) are communicated daily to Russell Investments' Direct Fixed Income Investment (DFII) team via an automated process, and it raises or spends cash as appropriate to meet the liquidity needs, using same-day settlement as necessary. Daily inflows are invested per the investment guidelines, and securities are sold if there are outflows where cash is required. It is best practice to align any cash requirements with a security of a similar settlement or maturity. For example, it would not be best practice to sell a one-year T-Bill to meet a short-term cash requirement (e.g., a daily margin wire), unless circumstances required it. In general, transaction costs tend to be quite low for short-term cash management programs.[4] A portfolio can reduce transaction costs if the cash requirements are met with daily or weekly maturing securities. A similar concept exists for liability-driven investing whereby cash flows are matched with maturing investments. Regardless, we recommend a thoughtful approach to diversifying the maturities based on the client's liquidity profile.

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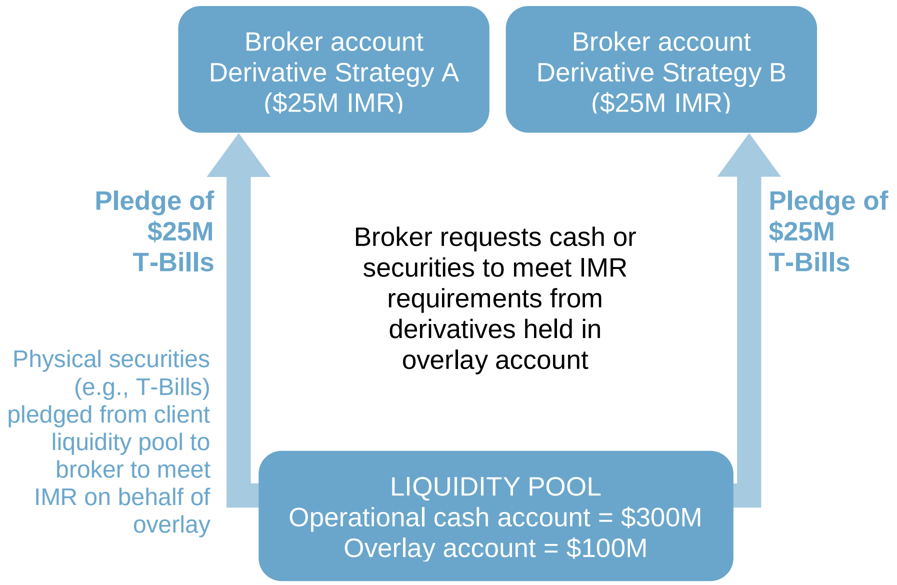
A secondary benefit of this arrangement is "dual-purpose pledging" in which a security like a T-Bill or T-Bond can serve as both an investment that earns a yield while simultaneously being pledged to the overlay account to satisfy the margin requirements for derivatives. This is shown in Exhibit 4. Using an investment for multiple purposes is an excellent strategy for improving the efficiency of your cash. A metric of measuring efficiency gains from this benefit is to simply divide IMR by the combined total of overlay cash and the liquidity pool. For example, consider a client with a combined IMR of $50 million across multiple brokerage accounts, an overlay account value of $100 million and a separate liquidity pool of $300 million. If the IMR of $50 million was met using securities purchased in the liquidity pool, then the client would be using its cash 12.5% more efficiently.[5] Pledging securities to meet IMR (versus using cash) will free up $50 million to be used elsewhere in the plan.

Exhibit 4: Dual purpose pledging

Purchase securities in client's Liquidity Pool as part of cash management program and pledged to the Broker



Options for implementation

There are several methods or variations in which cash management can be added to a client's portfolio.

- Utilize Russell Investments' DFII team to manage the cash balance in the applicable overlay account(s) with the goal of increasing the yield on cash and allocating a portion of the securities to meet IMR.
- Utilize Russell Investments' DFII team to manage the overlay account(s) *and* the client's operational cash account(s) to earn more yield on a larger sum of cash and to be more efficient with the pledging of securities to meet IMR for derivative strategies.
- Special customizations can be incorporated into any assignment, such as leaving a fixed dollar amount uninvested, portfolio weighted average maturity restrictions, single security max duration restrictions, sector restrictions and currency restrictions.

An overlay is a powerful and flexible tool on its own and adding cash management into the mix makes it even more valuable and efficient.

Conclusion

Cash returns have increased to the point where being passive can be a detriment to investment results. An active approach to managing cash can increase yields and create efficiencies from a collateral management standpoint. Often, clients utilize multiple strategies spanning various custodian and broker accounts, all of which require unique initial margin requirements. An efficient method of meeting these margin requirements would be pledging government securities directly from the liquidity pool being managed by Russell Investments. Our cash management platform is flexible and can accommodate many different methods of implementation that are outlined above. An overlay is a powerful and flexible tool on its own and adding cash management into the mix makes it even more valuable and efficient.

[1] As of January 29, 2019.
[2] STIF funds may not be able to invest all their cash on hand, making it difficult to achieve their maximum yield. Additionally, not all STIF funds are alike in terms of risk (duration). Each fund determines the risk level it will take, which may be greater than or less than the benchmark they are targeting. Finally, a cash market index such as a 3-month T-Bill index is not actually investible and thus the exact yield is not attainable directly.
[3] The custodial STIF section of this exhibit displays the averages of the data in Exhibit 1.
[4] As an example, a 3-month T-bill bid/ask spread is roughly 0.2 basis points, and a 1-year maturity is about 0.7 basis points.
[5] $50 / ($100+$300) = 12.5%

About Russell Investments

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For more information

Call Russell Investments at **800-426-8506** or

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