

# **Liquidity Management Top Ten: Fine-Tuning Cash Portfolios**

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### **Executive Summary**

Effective liquidity management, especially for large cash portfolios with a range of investments, can quickly turn into a larger and more complex task than initially expected. Some financial executives may not have a firm grasp of what liquidity means in a portfolio of individual cash assets. But adhering to some simple guidelines and best practices can help. And a good starting point may be to ask two questions raised by the two main criteria in measuring liquidity:

- 1. How long will it take to convert an asset to cash?
- 2. How much of a price "haircut" might be taken on the sale?

In this article, we begin by providing an overview of liquidity and how to measure it. We then dive deeper into the top 10 liquidity factors which may help guide an investor during the security selection process. We conclude by discussing six steps to help achieve better liquidity which may benefit investors in their portfolio construction decisions.

While no one can pinpoint when the next market liquidity event may occur, liquidity management in times of smooth sailing may certainly be within the control of the cash investor.

# What is Liquidity and How to Measure it?

Liquidity can be different things in different situations. To keep things simple, this article deals with liquid investments that a typical treasury account may hold for planned and unanticipated cash needs. With marketable cash investments, liquidity generally means how easily and quickly one may exchange a security for cash with little price concession from its going rate. Using this definition of liquidity, cash, currency, and demand deposits at financial institutions are certainly liquid. How, then, does one discern other types of cash assets?

The two main criteria in measuring liquidity are:

- 1. How long it takes to convert an asset to cash.
- 2. How much of a price "haircut" will be taken on the sale.

It's important to understand the liquidity characteristics of various cash investments. Sellers of Treasury bills and corporate commercial paper with tier 1 credit ratings typically will receive cash payments on the date of the, and at a price close to the dealer-quoted price. By contrast, bank certificates of deposit (CDs) usually do not qualify as liquid assets. An investor either waits until a CDs maturity date to withdraw funds or may pay a substantial penalty for early withdrawal. The liquidity of other cash instruments falls somewhere in between.



## Why Bother with Liquidity?

This topic is especially important because within the last few decades, we have witnessed the proliferation of new investments specifically catered to cash and short-duration investors. A common feature in many of these instruments is "liquidity transformation," or issuing short-term debt such as commercial paper to finance long-term investments such as mortgages and loans. In exchange for higher yield potential, cash investors are exposed to the liquidity risk of issuers unable to continue this mismatched funding model as the market or credit conditions change. A few examples of such investments that ran into serious trouble in the 2008 financial crisis include collateralized debt obligations (CDOs), auction rate securities (ARSs) and structured investment vehicles (SIVs).

Investors who intend to hold securities to maturity often make the mistake of downplaying the importance of liquidity. To them, the ability to turn short-term financial assets into cash quickly at the lowest cost does not seem relevant if the expectation is to collect bond proceeds at maturity. This assumption does not consider the fact that cash flow forecasting is part science and part art, and an unexpected cash need may force the liquidation of a cash portfolio. Credit or interest rate concerns may also require a sale to avoid future losses.

In addition, liquidity has economic value. In other words, a less liquid investment should fetch a higher price than an otherwise identical, but more liquid security. For example, a two-year floating rate note with three-month interest rate resets may pay a higher annualized yield than three-month commercial paper from the same issuer. The two have essentially the same credit risk exposure, but the former may be less liquid, thus commanding a higher yield in compensation.

## What Factors Influence Liquidity?

Portfolio liquidity is based on the result of many factors, including general financial market conditions and specific security features. Listed below are some of the more prominent factors that may be relevant to treasury cash accounts.

- 1. Size and Breadth of Market Sectors: U.S. Treasury securities are among the most liquid instruments in the world. Aside from strong credit backing from Uncle Sam, they are liquid because they are widely held. Generally speaking, liquidity is better in large market sectors with higher debt outstanding and higher daily trading volume. These sectors include federal agencies and corporate securities. Municipal, asset-backed, and commercial mortgage debt markets may be less liquid by comparison.
- 2. **Market's Risk Appetite:** General market sentiment towards liquidity risk premium can be a significant factor. When interest rates are low, credit is easy, the world is at peace, and investors tend to require a lower premium for liquidity. When central banks embark on tighter monetary policies or when geopolitical risk is on the rise, credit uncertainty increases and investors typically want to stay with more liquid securities. As a result, they may demand a higher yield for owning a less liquid security.
- 3. **Credit Ratings:** Investors often associate credit risk with liquidity. Securities with credit ratings of triple-A, double-A, or single-A are generally very liquid, as investors are more likely to purchase them. Bonds rated BBB or below-investment grade are often progressively less liquid, as there are fewer interested buyers. Similarly, a security that is a downgrade candidate will usually be less liquid than one of the same credit ratings that is on the verge of an upgrade.



- 4. **Round Lots:** Institutional bond traders often speak of and prefer to trade in "round lots". Although no industry standard exists, these are the preferred minimum trading units that range from \$1 million to \$5 million. Bonds can be bought and sold in any increments of \$25,000, but such "odd lot" transactions are often more difficult to complete.
- 5. **Issuance and Outstanding Size:** The issuance size is a relevant factor since the larger the size, the more likely investors are to trade the securities. For commercial paper issuance, it is the total outstanding balance. In recent years, issuers, including the Federal Home Loan Banks, issued deals in the billions of dollars, which greatly improved the liquidity of these securities. By contrast, the same issuers' medium-term note (MTN) programs, or bonds issued on an as-needed basis from a shelf registration, are much smaller and usually less liquid.
- 6. **Inclusion in a Market Index:** Just as stocks in major equity indices tend to have heavier trading volume, securities in a bond index tend to have better liquidity. For many total-return oriented managers, securities not in a relevant index may introduce "out-of-index" return variances that are sometimes less desirable or even prohibited by their investment guidelines. Index providers, such as Bloomberg (formerly Barclays) and ICE (formerly Merrill Lynch), regularly revise their index criteria, which can influence the liquidity of bonds affected.
- 7. **Bond Structure:** In bond parlance, bonds with fixed coupon rates and fixed maturity dates are "plain vanilla" bonds. This is the most liquid of all bond structures. Securities with a floating-rate feature tend to be less liquid as their coupon rates float with market rates and are less certain. Callable bonds may also be less liquid due to their cash flow uncertainty and reinvestment risk. The call feature allows issuers to retire bonds at face value prior to maturity.
- 8. **Country of Origin:** No, it's not that obvious. U.S. dollar-denomination does not indicate a country of origin. Country of origin refers to the location where the securities were initially sold. If a U.K. subsidiary of a U.S.-based firm chooses to issue dollar debt in Luxemburg, the country of origin is Luxemburg. A trade may take place in New York, but international regulations for cross-border transactions may delay settlement by several days to even weeks. Multinational corporations such as AIG and General Electric issue debt in many countries. Investors should be cognizant of the liquidity constraints potentially associated with country of origin.
- 9. Coupon Rate Preference: The coupon rate may influence a bond's liquidity. Bonds are "fixed income" securities, as investors expect to receive fixed future payments. In general, bonds with coupon rates close to the prevailing market rates, or "current coupon" bonds, tend to be more liquid than those with rates that are either higher ("premium") or lower ("discount") than the market rates. A premium bond requires one to pay more than the face amount at purchase, and gradually receive the extra payment back at coupon payment dates. Conversely, investors relying on steady income payments may not desire discount securities that pay coupons that are less than the market rate.
- 10. **On-the-Run Benchmarks:** This is a technical market factor that influences bond liquidity. Treasury notes and bonds of 2, 3, 5, 7, 10, 20 and 30-year maturities that are most recently issued are "on-the-run" bonds, while all other Treasury securities are considered "off-the-run". On-the-run bonds are typically more liquid as they have the highest trading volumes, tend to be easier to price, and act as benchmarks for other bonds. Dealers may use on-the-run Treasuries to hedge their interest rate risk. Non-Treasury bonds with comparable maturities to on-the-run Treasury bonds tend to be more liquid. For example, when the Treasury Department reintroduced the 3-year note, liquidity of other bonds maturing in three years immediately improved.



### **How Best to Manage Liquidity**

So, how can treasury professionals better manage liquidity risk in their portfolios? In addition to paying attention to the Top 10 liquidity factors above, the following is a sample of measures that may help to improve a portfolio's liquidity profile.

**Decide on a Maturity Structure:** Bond maturities often represent the most predictable and least costly sources of liquidity. When possible, treasury managers may want to consider buying bonds with maturity dates that correspond to the dates of major cash disbursements. Money market funds, while providing the convenience of daily liquidity, often have a yield disadvantage relative to other investments.

**Comparison Shop:** A rule of thumb to owning marketable securities is to ensure that multiple dealers are "making a market" in those securities (buying and selling those securities regularly). Liquid securities generally have support from at least three dealers. Investors should be skeptical of proprietary brokerage or bank products that do not have the support of other dealers.

**Do Your Homework and Delegate:** The proliferation of new cash products with special features requires more due diligence. Many new products have derivative, leverage, or extension features that affect liquidity. Investors who desire higher yield potential may want to delegate the task of managing non-traditional investments to an outside manager with experience in these investments.

**Get Paid for Taking on Liquidity Risk:** Liquidity has its price. When treasury managers don't need immediate liquidity, they may want to invest in less liquid instruments that compensate them with a higher yield. Assessing liquidity premia may be more art than science and may require experience and understanding of how particular market sectors operate.

**Establish a Liquidity Budget:** Investors may also improve liquidity by designating a portion of their portfolio to securities that may be less liquid, "an illiquid basket." For example, money market fund managers may place up to 5% of their holdings in illiquid securities. The liquidity of the other 95% of the portfolio may often sufficiently protect against unexpected cash needs.

**Beware of Over-diversification**: Finally, a word of caution. It is prudent to reduce risk by diversifying holdings, but treasury professionals may want to avoid over-diversification in owning old-lot positions that reduce liquidity. For example, requiring a 2% issuer concentration limit in a \$10 million portfolio will limit each holding to \$200,000, which is less than the trading size preferred by many investors.

#### **Conclusion**

Liquidity management in buy-and-hold cash portfolios is often not regarded as a top priority. One reason is that the role is difficult to investigate empirically. And liquidity supply and demand are not always observable. But in a liquidity-based market crisis, it is important to understand a portfolio's liquidity profile, because price behavior often depends on who holds what and who must liquidate. While no one can pinpoint when the next market liquidity event may occur, portfolio liquidity management in times of smooth sailing may certainly be within the control of the cash investor.



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