Managing cash in your portfolio

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Executive summary. Investors may maintain cash in their portfolios for a number of reasons, such as to cover daily living expenses and in case of emergencies. As such, cash should be invested in a manner appropriate to the need. Investors have many options for investing their cash, such as money market funds, Federal Deposit Insurance Corporation (FDIC)-insured accounts, certificates of deposit (CDs), bonds, and short-duration bond funds. The downsides of holding cash in such investments are that the money earns very little yield and that it remains subject to inflation. In addition, when the objective is to protect principal, cash should not be invested in strategies that carry principal risk, such as bonds and bond funds. The decision on what strategy to use should include consideration of possible fees or commissions as well as tax implications. Finally, investors should review their cash management strategy from time to time, to account for their changing personal needs as well as market and regulatory issues. This brief research paper discusses important considerations for managing cash and also outlines key characteristics of different types of cash investments.

Investors may hold cash in their portfolios for various reasons—for example, to meet current living expenses or to have funds readily available for emergencies. Investors should carefully identify their specific cash needs and invest their cash accordingly.

In so doing, investors should be aware of the many strategies available to manage cash, such as money market funds, FDIC-insured accounts or CDs, individual bonds or short-duration bond funds, and the laddering of individual instruments. The type of investment selected will depend on the investor's particular needs, with safety and liquidity the top concerns.

Two often-recognized downsides of holding cash are, first, that the money earns very little yield, and, second, that it remains subject to inflation risk. Investors should also keep in mind that when their objective is to protect principal, cash should not be invested in strategies that carry principal risk (such as bonds or bond funds), because such strategies can run counter to the idea of maintaining safety and liquidity in cash holdings. Bonds and bond funds—which pose duration risk for investors—cannot be considered true cash management vehicles. In addition, because of market and regulatory issues, it is important for investors to understand different cash investments and to review their cash management strategy periodically. Finally, depending on the investor's tax bracket, the instrument selected should be based on whether the cash will be held in a taxable or tax-deferred account. (See the box on page 3 on considerations for investing cash.)

Identifying specific cash needs

When managing cash, investors should first identify their specific needs by assessing their major expenses and determining when those will come due. Investors must then determine what assets they have available to meet those needs. Separately, investors should keep a certain amount of cash for emergencies—typically 3 to 36 months' worth of living expenses. How much cash to keep depends on a number of factors, such as the investor's particular liquidity needs, the dependability of his or her employment or other income sources, and how financially conservative the investor is. Each investor will have unique cash requirements.

Figure 1. Instruments available for investing cash

Immediate needs	Longer-term needs
Money market funds	Longer-maturity T-bills
Checking accounts	Brokered CDs
Savings accounts	U.S. government agency bonds
T-bills	Corporate bonds
	Municipal bonds
	Short-duration bond funds

Source: Vanguard.

An investor should keep in mind two well-known downsides of holding cash: losing the opportunity to invest in higher-yielding instruments, and inflation risk. Also, when the investor's objective is to protect principal, cash should not be invested in strategies that carry principal risk (such as bonds or bond funds), because such an approach would run counter to maintaining safety and liquidity in the cash holdings. Bonds and bond funds are not true cash management vehicles because of the duration risk they pose for investors.

Finally, an investor must choose the cash investment that best meets his or her particular need. For example, money that is required to pay bills in the immediate future (such as 90 days or less) should be placed in readily accessible vehicles such as money market funds, checking or savings accounts, or other very liquid investments (see **Figure 1**). A primary focus for this cash is on protecting principal. Money meant to cover major expenses that are farther in the future could be placed in less readily available investments such as longer-maturity U.S. Treasury bills or CDs. For those expenses that are extremely far in the future and for which principal protection is not a concern, bonds and short-duration bond funds may be considered. These investments may potentially generate higher yield than more readily available ones. Note also that individual instruments such as bonds may be more labor-intensive, because when they mature, the investor may need to reinvest the cash if the liability is not yet due. In addition, individual bonds pose higher risks and offer lower liquidity than funds (Bennyhoff, 2009). (See also **Figure 2**, on pages 6–7, for a comparison of cash management options.)

What to consider when investing cash

Investors should take several considerations into account when deciding how much cash to hold and where to invest it:

- What are my specific cash needs, and when will they come due?
- How much of my portfolio do I plan to allocate to cash?
- What fees are associated with the cash investment?
- What is the reputation and financial stability of the firm offering the investment?
- What is the relative safety of the investment, and are investment protections such as insurance available for it?
- What options will I have to access my cash, such as checks, wire transfers, ATM withdrawals, and online banking?
- Are there tax considerations that favor a particular investment?

Other key considerations

Cash should generally be thought of as separate from the rest of the investor's portfolio, since its purpose differs from that of long-term investment assets such as stocks and bonds, and should be invested in the vehicle that best matches the need. Investors must also be careful to evaluate other considerations for investing cash. First, the investor should be aware of any fees associated with the cash investment, such as fund management fees or commissions on the purchase of individual instruments such as a CD. Because keeping cash safe is important, the investor should also consider the reputation and financial stability of the firm offering the investment. Money market funds, for example, are actively managed, and thus each fund advisor determines which securities to purchase for the portfolio (Glocke, Hammer, and Ameriks, 2012). Investors should also know how to access the cash when they need it, such as through a checking account or ATM withdrawals. Investors should furthermore be alert to tax considerations related to their cash investment, since some cash instruments are taxable while others are not. For example, investors in a high tax bracket may prefer to choose a tax-exempt money market fund instead of holding their cash in a taxable account. Finally, it is important for investors to understand the operation and structure of their cash instruments and to periodically review their cash strategy.

Building a fixed income ladder

Investors who choose individual instruments, such as CDs, over a money market fund or short-duration bond fund may need to build and maintain a "fixed income ladder"—a portfolio of fixed income securities that have sequential maturity dates. When one security matures, the proceeds are used to buy another security with a maturity that continues the sequence. A fixed income ladder—and the maturity of each "rung"—can be as long or as short as the investor likes.

For example, an investor with $25,000 who wished to build a five-year CD ladder would invest $5,000 in each rung of the ladder.[1] So $5,000 each would be invested in a 1-year, 2-year, 3-year, 4-year, and 5-year CD. After a year, the 1-year CD on the first rung would mature, and each of the other CDs would "move down" one year. So the 2-year CD would now mature in one year, the 3-year CD would now mature in two years, and so on. The money from the just-matured 1-year CD is "rolled over" and invested in a new five-year rung. As each rung matures, a fixed income ladder allows the investor to reinvest cash at the prevailing interest rate, while ensuring that a portion of cash will be available for use.

An investor should be aware of several considerations when using fixed income ladders. First, the ladders require some effort to build and maintain, because the investor must choose the length of each rung, the individual instrument for investment, and the reinvestment method. Investors also need to be sure that the maturities of the securities fit with their own cash needs. Cashing in a CD or selling a bond before maturity may be costly, should the investor need the cash. Finally, investors may consider a money market fund more convenient, because it provides daily liquidity, broad diversification, and the expertise of professional management. Also, transaction costs for money market funds are often lower because the investors do not have to pay a bid-ask spread on their own individual securities.

1 We use a five-year ladder here with one-year "rungs" for illustrative purposes only.

Conclusion

Investors may choose to maintain cash in their portfolios for many reasons, including for living expenses and emergencies. Once the need for cash is identified, investors should match the need with an appropriate investment. Options include money market funds, FDIC-insured accounts and CDs, individual bonds, and short-duration bond funds. The decision about which investment to choose should be based on how readily available the cash must be for an investor and the convenience and safety features of the investment. Investors should keep in mind that when the objective is to protect principal, cash should not be invested in strategies that carry principal risk (such as bonds or bond funds), since that runs counter to the idea of maintaining safety and liquidity in the cash holdings. Bonds and bond funds are not true cash management vehicles, because they pose duration risk. Investors should also keep in mind that some cash investment vehicles may involve fees or commissions or have tax implications. Because personal needs may change, along with the market and regulatory environment, it is important for investors to review their cash management strategy periodically.

References

Bennyhoff, Donald G., 2009. *Municipal Bond Funds and Individual Bonds*. Valley Forge, Pa.: The Vanguard Group.

Glocke, David R., Sarah D. Hammer, and John Ameriks, 2012. *The Buck Stops Here: Vanguard Money Market Funds*. Valley Forge, Pa.: The Vanguard Group.

Figure 2. Comparing various cash management options

Investment	Liquidity	Market value	Credit quality	Regulatory considerations
Money market funds (sweep)	Daily.	Stable.	Credit quality is subject to U.S. Securities and Exchange Commission (SEC) Rule 2a-7.[a]	Regulated by SEC.
Bank deposits (demand deposits or savings accounts)	Immediate.	Not applicable.	Credit quality is concentrated in the credit of the bank that holds the deposit.	Regulated by Federal Reserve, FDIC, or Office of the Comptroller of the Currency (OCC).
Individual U.S. Treasuries	Day after sale; secondary market available; no dollar limit for secondary market.	Fixed coupon and maturity; market value fluctuates prior to maturity.	Backed by U.S. Treasury.	
Brokered CDs	May be thinly traded on secondary market; therefore difficult for individuals to buy and sell at current yield.	Fixed coupon and maturity.	Depends on issuer; rates generally higher than those of U.S. Treasuries.	May be FDIC-insured ($250,000 maximum); various banking regulators oversee the particular issuers; CD deposit brokers are not required to be licensed or certified.
Individual agency bonds	Access to secondary market.	Fixed coupon and maturity; market value fluctuates.	Credit backing of agency; rates generally higher than those of U.S. Treasuries.	
Individual corporate bonds	Access to secondary market, but generally not liquid; therefore difficult for individuals to buy and sell at current yield.	Fixed coupon and maturity; market value fluctuates.	Credit backing of the corporation; rates generally higher than those of U.S. Treasuries, CDs, and agencies.	
Individual municipal bonds	Access to secondary market, but generally not liquid; therefore difficult for individuals to buy and sell at current yield.	Fixed coupon and maturity; market value fluctuates.	Credit backing of the municipality depends on type; rates generally higher than those of U.S. Treasuries, CDs, and agencies.	Municipal Securities Rulemaking Board (MSRB) regulates securities firms and banks involved in trading and selling municipal bonds.
Short-duration bond funds	Generally available day after fund redemption.	Fluctuates.	Varies by fund.	Mutual funds are regulated by the SEC.

a SEC Rule 2a-7 regulates the quality, maturity, and diversity of investments by money market funds.

Note: There may be other material differences between products that must be considered prior to investing.

Source: Vanguard.

(continued on page 7)

Figure 2. Comparing various cash management options *(continued)*

Investment	Positives	Negatives	Tax treatment (consult your tax advisor)	Other considerations
Money market funds (sweep)	Expertise of professional manager; broad diversification; ease of accessing secondary markets.	Not insured by Federal Deposit Insurance Corporation.	Depends on type of fund (taxable or tax-exempt).	
Bank deposits (demand deposits or savings accounts)	FDIC-insured up to $250,000 per FDIC-insured institution, per depositor.[b]	Credit and liquidity are concentrated in the bank that holds the deposit; may be less convenient than money market sweep funds (e.g., if savings account).	Interest on savings accounts is taxable.	
Individual U.S. Treasuries	Backed by full faith and credit of U.S. government.	Bid-ask spread; lower yield than other instruments.	Interest is exempt from state and local income taxes.	$5 million household limit for auctions; market value fluctuation prior to maturity; bid-ask spread.
Brokered CDs	Generally higher yield than those of U.S. Treasuries.	May incur penalties for early withdrawal; may be callable; possibility of bank default.	Interest is taxable.	Single account access to multiple banks; bid-ask spread.
Individual agency bonds	Higher yield than those of U.S. Treasuries.	Credit risk of agency; may be callable; limited diversification; duration risk.	Tax status varies by type of bond; state and local exemptions may apply.	Bid-ask spread.
Individual corporate bonds	Higher yield than those of U.S. Treasuries or agency bonds.	Credit risk of corporation; may be callable; limited diversification; limited liquidity; duration risk.	Interest is taxable at all levels (federal, state, and local); gains may be subject to capital gains tax.	Bid-ask spread.
Individual municipal bonds	Higher yield than those of U.S. Treasuries.	Credit analysis is complex; limited diversification; limited liquidity; duration risk.	Interest may be tax-free at federal, state, and local levels if investor resides in same state or municipality as the issuer; however, gains on purchase/sale in secondary market may be taxable at capital gains rates.	
Short-duration bond funds	Broadly diversified.	Market value can fluctuate; duration risk.	Depends on type of fund.	

b See fdic.gov for detailed information.

Note: There may be other material differences between products that must be considered prior to investing.

Source: Vanguard.

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