Understanding Model CD Ladders

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Fidelity's Model CD Ladders provide a quick and easy way to implement a CD ladder strategy for a portion of your portfolio. Brokered CDs are time deposit instruments issued by banks with a range of available maturities and can be bought and sold in a brokerage account. The intent behind offering the Model CD Ladders is to show how simple combinations of CDs can be modeled and then built or modified to suit an investor's specific requirements.

Introducing Fidelity's Model CD Ladders

Fidelity displays three Model CD Ladders to educate investors with varying needs for liquidity and yield or return:

- 1 Year Ladder: Composed of four maturity "rungs" 3-month, 6-month, 9-month, and 12-month
- 2 Year Ladder: Composed of four maturity "rungs" 6-month, 12-month, 18-month, and 24-month
- 5 year Ladder: Composed of five maturity "rungs" 1,2,3,4, and 5-years to maturity

The Model CD Ladder logic scans Fidelity's new issue CD inventory every 15 minutes and displays the highest- yielding CDs in each of the three sample Model CD Ladders shown on the "CDs & Ladders" tab. The time stamp below the Model CD Ladders denotes the last update. Prior to completing an investment, please consider FDIC coverage limitations and evaluate the creditworthiness of both the CD and the underlying institution.

How the CD maturity dates are defined

The CDs that are displayed within the Model CD Ladders are selected according to their time to maturity (TTM). These TTMs range from 3 months (3MO) to 5 years (5YR). Each TTM represents a range of days, and conforms to the same ranges used in the Fidelity Yield Table, as follows:

CD Maturity Date	Range of days considered for the CD Maturity Date
3MO	60 to 120
6MO	150 to 210
9MO	240 to 300
1YR	315 to 405
18MO	495 to 585
2YR	675 to 765
3YR	1020 to 1140
4YR	1380 to 1500
5YR	1710 to 1860

How the Model CD Ladders are Constructed

The three Model CD Ladders shown on Fidelity.com are designed to provide investors with an indication of the kinds of rates that might be available if they were to build a CD ladder at that point in time. However, if an investor builds a current CD ladder, rates and availability may differ from the Model CD Ladders displayed depending on several factors including the size of the Model CD Ladder, the highest CD rates available in Fidelity's inventory at that point in time, and the CD issuers already in the account. The following logic is deployed during the construction of the investor's specific Model CD Ladder:

The selection of CDs begins by selecting the highest-yielding new issue CD available for the rung closest to maturity, assuming there is still sufficient quantity available to satisfy the requirements of the ladder. Next, the second rung is populated using the same logic.

The Model CD Ladder logic will take existing positions of an issuer into consideration in only the account you identified for your ladder. For example, if an account already includes \$100K of CDs from a given issuer the Model CD Ladder logic will consider CDs from the same issuer providing that the aggregate exposure of the two positions does not exceed the \$250K FDIC insurance guarantee. Similarly, the Model CD Ladder logic will allow the CD ladder proposal to contain more than one rung of the same issuer only up to the point that the combined exposure from existing positions in the account, when added to the sum of all displayed positions, remains under \$250K overall. The CD ladder tool limits purchases to a maximum of \$250,000 per account per institution, regardless of account type. Some account types, including joint accounts and trusts, may have potential for higher coverage limits. You should consider the extent to which other accounts, account holders and beneficiaries, deposits, accrued interest, or CDs offered through separate branches of the same banking institution, may exceed applicable FDIC limits. For details on FDIC insurance limits, see www.fdic.gov.

- For investors seeking to invest over \$1 million in a Model CD Ladder the logic takes the FDIC insurance limits of \$250K into consideration: If for example an investor seeks to invest \$1.5million in a 1-year Model CD Ladder then this would exceed the \$250K FDIC coverage because \$1.5M divided by 4 rungs = \$375K per rung. In such circumstances the Model CD Ladder would seek to build an 8-rung ladder, ie 2 rungs per TTM bucket, in an attempt to keep the exposure to any one CD issuer at or below \$250K. For each rung of the ladder (eg: the 3- month rung or the 6-month rung) the logic suggests purchasing up to the full \$250K FDIC coverage at the best rate available for that TTM. The remainder of the rung's investment is then allocated to the next-best CD rate for that maturity rung. In some cases the second highest rate might be equal to the highest rate available in Fidelity's inventory since the same rates are frequently found offered across different issuers.
- Model CD Ladders will also exclude from their consideration zero coupon CDs, CDs that are callable, and CDs that are subject to any Blue Sky restrictions for the specific state in which the account is registered. For further information on the specifics of the CDs suggested in your ladder, please click on the CD Description link within each rung of the CD Ladder and you will be taken to the CD Details page.
- Model CD Ladders will not duplicate an order in the same account for the same CD (same CUSIP). For example, if you have an open order for a 6-month CD as part of a 1yr ladder and attempt to purchase a 2yr ladder, the Model CD Ladder will exclude the original 6-month CD from consideration, even if it is the highest rate. Investors should be aware of any open orders for CDs before purchasing a Model CD Ladder.

Building the Model CD Ladder: A 4-Step Process

Once an investor selects a one, two, or five-year CD Ladder to build, there follows a simple 4-step process in which the investor may review their CD ladder:

Step 1 – Select an Account. First, please check that the account selected is a brokerage account or an individual retirement account (IRA), capable of holding CDs. Remember to choose an account with sufficient funds to purchase the number of CDs identified for your ladder.

Step 2 – Enter an Amount. You will next be prompted to enter the total Dollar amount to invest in the Model CD Ladder. The logic will then divide this amount evenly across the rungs of the ladder chosen. If a 1 or 2-year Model CD Ladder is chosen then the minimum investable amount for the ladder strategy is \$4,000 and higher amounts need to be divisible by 4. This is because of the four-rung structure of these ladders. If the investor has chosen a 5-year Model CD Ladder then the minimum is \$5,000 for the ladder strategy and higher amounts must be divisible by 5.

This is because a 5-year CD Ladder strategy has five rungs.

Step 3 – Decide whether to allow maturing CD positions to mature or be reinvested through the Fidelity Auto Roll Service.

Step 4 - Review and Buy. The ladder will search for the highest available CD rates for each of the rungs, subject to the logic described in the prior section. The results of this Fidelity inventory scan and selection will be presented on a page titled "Choose CDs" that provides a preview of the identified CDs and their quantities to be purchased.

Below the Rung grid you will also see a set of portfolio totals and averages that provide information such as the total cost and par-weighted average yield of the Model CD Ladder if purchased with the inventory and quantities as listed on the page. At the bottom of the "Choose CDs" page, you will see the "Annual Cash Distribution" and "Monthly Cash Distribution" which illustrate in a graphical format estimated cash flows for your CD ladder using the investment amounts you identified and current annual percentage yield (APY) for each individual CD. The charts provide the calculated hypothetical future amount of interest and principal to be paid from the ladder's positions.

*Note on interest rate calculations:

- In the Payment Schedule section, the interest payments are calculated as follows:
 - o (number of interest days / 365) * (par value * coupon rate / 100)
- In the Summary Calculations section, Annual Interest, is calculated as follows:
 - o If less than 12 months: (number of interest days / 365) * (par value * coupon rate / 100)
 - o If more than 12 months: (Par value * Coupon Rate / 100)
 - A CD with a maturity date that is >11 months is rounded to 12 months and can thus cause a difference between the payment schedule and the next 12 month's interest calculation

Before purchasing, be sure to check that the CDs and quantities suggested are not issuers you may already own in the same account registration type and could thus exceed your aggregated FDIC insurance. The context of the Model CD Ladder is account-specific and does not compare with CD positions held in other accounts of the same registration type held either at Fidelity or elsewhere. Also, give a final consideration that the maturities of the CDs, the CD ladder, and the total amount you are investing align with your overall financial situation and goals. Positions enabled with the Auto Roll feature will be marked with an "AR" next to the CUSIP description. Assuming the ladder is satisfactory to the investor, the CDs may be added to the Cart by clicking the green "Add to cart" button located below the portfolio totals and averages.

Once on the cart page, you can review the quantity, description, mark-up and total cost of your pending CD orders. PLEASE NOTE, you must click the "Purchase ladder" button to place the orders. Once placed, you will receive a "Success" message to notify you that the orders have been successfully placed.

Editing the Model CD Ladder

Although the Model CD Ladder is designed to quickly provide an investor with a simple and straightforward process towards building a short-term CD ladder, it is possible to edit or customize the initial individual CDs identified during Step # 4, "Review and Buy". From the Choose CDs page it is possible to change the quantities of each rung. To do this, edit the number in the "QTY" column and then click anywhere outside the box as this will update the cash distribution charts, portfolio averages and totals. Note that changes to quantities will change the initial investment amount or "Principal Cost" and most likely change the "Average yield to worst" as a result. Subject to availability, investors also have the ability to select an entirely different CD from the one initially identified at the level of each rung. To do this, simply click on the "Choose CDs" button displayed at each rung and, in the page that follows, click the radio button against the CD you wish to select, then click the green "Add CDs" button to swap the initially identified CD for your newly selected one and return to the Choose CDs Page.

Owning a CD Ladder

As the CDs used in the Model CD Ladders are new issue CDs investors should be aware of the fact that the actual trade and settlement of any given CD in the ladder may vary from a few days to a week or more into the future. But once the trades have executed and settled, investors may view their CD purchases in one of two ways:

- 1) Account Position page, which shows each CD as a separate position.
- 2) The Purchased Ladders Cards, which shows the CDs grouped by the ladder name. To access your purchased ladders go to the Ladders Landing page on the Fixed Income Dashboard. From there, you can view your ladders in the "Purchased Ladders" section of the page. You may need to use the right arrow to toggle between all your purchased ladders.

Reinvest maturing positions automatically with Auto Roll

During the CD Ladder construction process you will be asked to choose whether to have future maturing CD positions return principal to your core account or to select the Auto Roll Service to have future maturing principal automatically reinvested in another CD position equal to the longest maturity of the ladder. For example, in the case of a five year CD ladder with the Auto Roll feature enabled, each maturing CD will be reinvested in CDs that mature in five years. If you select to have your CD Ladder constructed with the Auto Roll Service enabled you will be asked to agree to the terms of the Auto Roll Service Agreement and sign up for the Auto Roll Alerts Service. When CD rungs mature, the Auto Roll Service will automatically search the Fidelity new issue CD inventory for the highest yielding new issue CD meeting your criteria at the time of the search, with a settlement date within twelve calendar days following the stated maturity date of the Maturing Position, and with sufficient quantity available.

For more detail on the Auto Roll Service click here.

- For more information on Model CD Ladders please see our <u>educational page</u> on Fidelity.com
- To watch a video on CD Ladder Strategies <u>click here</u>
- For further assistance please contact one of our specialists in fixed income who will be happy to assist you: 800- 544-5372

In general the bond market is volatile, and fixed income securities carry interest rate risk. (As interest rates rise, bond prices usually fall, and vice versa. This effect is usually more pronounced for longer-term securities.) Fixed income securities also carry inflation risk, liquidity risk, call risk, and credit and default risks for both issuers and counterparties.

The CDs displayed on the Search Results page shall not be considered an offer to buy or sell, a solicitation of an offer to buy, or a recommendation for any securities, but rather the outcome of an objective sort of our CD inventory based on your provided criteria and the stated methodology. The CDs in the CD Ladder Search Results page are displayed on the basis of them offering the highest yields available given certain the selected criteria. You acknowledge that your requests for information are unsolicited and shall neither constitute, nor be considered as investment advice by Fidelity Brokerage Services LLC, or its affiliates (collectively, "Fidelity").

A CD ladder, depending on the types and amount of securities within it, may not ensure adequate diversification of your investment portfolio. While diversification does not ensure a profit or guarantee against loss, a lack of diversification may result in heightened volatility of your portfolio value. You must perform your own evaluation as to whether a CD ladder and the CDs held within it are consistent with your investment objectives, risk tolerance, and financial circumstances. To learn more about diversification and its effects on your portfolio, contact a representative.

Any fixed income security sold or redeemed prior to maturity may be subject to a substantial gain or loss. Your ability to sell a CD on the secondary market is subject to market conditions. If your CD has a step rate, the interest rate may be higher or lower than prevailing market rates. The initial rate on a step-rate CD is not the yield to maturity. If your CD has a call provision, which many step-rate CDs do, the decision to call the CD is at the issuer's sole discretion. Also, if the issuer calls the CD, you may obtain a less favorable interest rate upon reinvestment your funds. Fidelity makes no judgment as to the creditworthiness of the issuing institution.

For the purposes of FDIC insurance coverage limits, all depository assets of the account holder at the institution issuing the CD will generally be counted toward the aggregate limit (usually \$250,000) for each applicable category of account. FDIC insurance does not cover market losses. All the new-issue brokered CDs Fidelity offers are FDIC insured. In some cases, CDs may be purchased on the secondary market at a price that reflects a premium to their principal value. This premium is ineligible for FDIC insurance. For details on FDIC insurance limits, visit FDIC.gov.

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