# **DECISION PAPER**



**Issue:** The Development Fund is now accumulating funds for longer term projects. In accordance with Investment Policy (Board Resolution 2015-5, **Attachment A**), investment in instruments with a term greater than three years require Board review and majority approval.

## **Background:**

Development Fund, year-end balance:

- \$ 499,000 12/31/2016 Actual
- \$ 3,753,000 12/31/2017 Actual
- \$ 4,365,000 12/31/2017 Projected

This fund is accumulating funds for various projects, most notably the identified eventual replacement (or significant remodel) of Downhill Ski Lodge.

Investing a portion in longer term maturies, with the intention of holding to maturity, will improve overal invesment yields.

Investing in short-term instruments produces yields in the 2.0% to 2.5% range currently. Current Federal Treasury yields information can be found in **Attachment C.** Bank certificates of deposits are currently yielding ~2.3% range for 3-year and ~2.6% for 5-year.

The US currently has what is considered a very flat yield curve. The flat yield curve is a yield curve in which there is little difference between short-term and long-term rates for bonds of the same credit quality.

The Development Fund investment brokerage account is with Stifel, Nicolaus & Company. Our account broker, Evan Price, will work with Director of Finance to place \$3.0 of funds in a mix of terms and instruments, with the intent to produce higher yields than Treasuries and bank Certficiates of Deposits.

As of latest proposal 4/15/2018, a mix of corporate, municipal and state bonds produced a blended yield of 2.9%. **Attachment B.** Investment yield options change daily.

50 basis points or ½% improvement in yield on \$3.0 million investment produces an incremental \$15,000 in investment income per year.

The investment risks include interest rates rising and Tahoe Donner need to sell some or a portion of the invested funds, wherein the sale of the investment would be at a small loss due to the interest rate difference between when purchased and when sold. This risk is eliminated by holding investment to maturity.

# DECISION PAPER



The other primary investment risk, primarily with non-governement backed Treasuries and bank insured (FDIC) Certificates of Deposits, is a default on the insturbment by the state, municipality, agency and or corporation issuing the bond. This risk is mitigated by the investment grades/ratings and divisersicaiton required by the Policy.

The Finance Committee has reviewed the proposal and concurs with investing \$3.0 million in longer term (greater than three years) diversified laddered terms investment, all within the paramaters of the Policy. 3/15/2018 FC Minutes:

H. Investments – Longer Term Instrument Options. - With the accumulation of funds for longer-term projects in Development Fund, the committee reviewed a diversified investment recommendation (4-5-year term) of corporate and municipal bonds (all within parameters of Investment Policy) which would improve the fund's investment yields. Committee advised to carve 1/3 of proposal to shorter term to hedge potential rising interest rates. Committee advised proceeding with investment plan as amended.

## **Options:**

- **A.** Resolve to invest \$3.0 million of Development Funds in greater than three year term insturments, all within the constraints & parameter of the Investment Policy, and in accordance with Finance Committee 3/24/2018 meeting guidance.
- **B.** Approve something other as directed by the Board.

#### Recommendation:

## **Option A**

| Prepared By: | Michael R. | Salmon, | Director | of Finance, | 4/20/2018 |
|--------------|------------|---------|----------|-------------|-----------|
|              |            |         |          |             |           |

Board Meeting Date: April 28, 2018

General Manager Approval to Place on the Agenda:



## TAHOE DONNER ASSOCIATION BOARD OF DIRECTORS

## **RESOLUTION 2015-5**

## **INVESTMENT POLICY**

WHEREAS, the Davis-Stirling Common Interest Development Act specifies that the Board shall exercise prudent fiscal management in maintaining the integrity of the Tahoe Donner Association's ("TDA" or "the Association") reserve funds<sup>1</sup>; and,

WHEREAS, subject to corporation law and limitations contained in the governing documents the business and affairs of the Association are vested in the Board of Directors<sup>2</sup>; and,

WHEREAS, the Board has authority to open bank accounts on behalf of the Association and designate signatories<sup>3</sup>; and,

WHEREAS, the Board shall maintain other accounts necessary to carry out the business of the Association<sup>4</sup>; and,

WHEREAS, the following constitutes the Investment Policy of TDA and supersedes all previously approved policies and resolutions pertaining to the investment of funds;

**NOW, THEREFORE, BE IT RESOLVED**, that the Board of Directors of TDA approves and adopts the following Investment Policy:

<sup>&</sup>lt;sup>1</sup> Davis-Stirling Common Interest Development Act, Chapter 7, Article 2, Section 5515(e)

<sup>&</sup>lt;sup>2</sup> Restated Bylaw of Tahoe Donner Association, ARTICLE VII, Section 1

<sup>&</sup>lt;sup>3</sup> Restated Bylaws of Tahoe Donner Association, ARTICLE IX, Section IX, Section 1(p)

<sup>&</sup>lt;sup>4</sup> Restated Bylaws of Tahoe Donner Association, ARTICLE XII, Section 4

#### **PURPOSE**

The purpose of this resolution is to establish guidelines to ensure the effective and judicious management of cash and investments of the Association's funds.

#### **INVESTMENT OBJECTIVE**

The funds of the Association shall be invested to achieve the following objectives:

- 1. To protect all principal funds while attempting to maximize the rate of return on investments.
- 2. Investments shall be made in the highest yielding instruments possible, consistent with the cash flow requirements of the Association and the restrictions listed below.
- 3. When making investment decisions, the factors of opportunity cost, risk vs. reward, diversification, scheduling and monitoring shall all be considered.

#### **AUTHORIZED INVESTMENT INSTRUMENTS**

Authorized investments are specifically limited to the following categories for funds of TDA:

- 1. Obligations backed by the full faith and credit of the United States Government, with a maximum maturity term of 10 years.
- 2. Checking or savings accounts at Banks and Savings and Loan institutions. Accounts must be insured by the FDIC.
- 3. Certificates of Deposit of Banks and Savings and Loan institutions. Certificates of Deposit must be insured by the FDIC.
- 4. Corporate Bonds of New York Stock Exchange listed United States corporations, rated "A" or higher by two of the following three rating services: Moody, Fitch, or Standard and Poor's. Should either service's rating fall below "A", the bonds shall be sold as soon as practicable. The maximum maturity term on these bonds will be 5 years.
  - 5. Money market accounts with TDA's Board approved financial institutions.
- 6. Municipal Bonds rated "A" or higher with a maturity term not to exceed 5 years. As described above, similar rating protections and procedures shall apply.
- 7. State of California insured debt instruments or California State debt rated "AA" or higher. Maturity term on California debt is not to exceed 7 years. As described above, similar rating protections and procedures shall apply.

#### INSTRUMENT LIMITATIONS

Limits on the above authorized investment instruments are as follows:

1. Cash and cash equivalent funds held in brokerage and bank accounts should be held at or below SIPC and FDIC insurance limits to the greatest extent possible. Liquidity needs for operating and capital expenditures may at times necessitate cash and cash equivalent balances in a particular account to exceed FDIC insurance limits. This risk shall be minimized by the Director of Finance and Accounting ("DFA").

- 2. Investments in each of the following investment categories are limited to no more than 20% of the individual fund balances (i.e. operations, development, replacement reserve and NMEFF) at the time the investment is made:
  - a. Corporate Bonds
  - b. U.S. Government Securities, with a maturity term of more than 3 years
  - c. State of California debt
  - d. Municipal Bonds

## 3. Approval Levels:

- a. Investments in instruments listed in item 2, above, with maturity terms of greater than one (1) year, require the concurrence of the Treasurer (or in the Treasurer's absence, the President) and one of the following: General Manager (GM), DFA, or another member of the Board.
- b. Investments in instruments listed in item 2, above, with maturity terms of greater than three (3) years, require the approval of three Board members.
- c. The concurrences required by this paragraph must be received BEFORE the investments in item 2, above, are consummated and notification of all Board members must occur within 10 days after the investment is made.
  - d. The GM or DFA may authorize all other investment transactions.
- 4. Long-term investments shall be made with the intent of holding them until maturity. Sales prior to the maturity date will require approval from the Treasurer.

## GENERAL ADMINISTRATION RESPONSIBILITIES

The DFA shall prepare annual forecasts of cash flow requirements for all the Association's funds. In addition, the DFA shall also prepare a cash flow forecast for the Reserve and Development Funds covering a period of not less than five years.

The Finance Committee and DFA shall meet quarterly to review investments, strategy, cash flow and the results of the TDA financial management. In addition, the Treasurer shall review and initial the monthly investment account reconciliations and report quarterly to the Board.

Services provided by banks, brokerage firms or Savings and Loans that provide required levels of insurance coverage for investor accounts, shall be utilized in administering this Policy.

Any changes to this policy or authorized signatories shall be sent to the appropriate brokerage firms immediately. Any brokerage firm holding funds and/or other investments of TDA, shall send (paper or digital), investment and deposit confirmations and complete monthly statements to BOTH the Treasurer and the DFA.

## **APPROVAL**

Approval of the Investment Policy and any changes, amendments, or modifications thereafter, may only be accomplished at a properly noticed meeting of the Board.

COURTNEY MURRELL Secretary

ACCEPTED AND DATED: November 20, 2015

STEVE MILLER, President

JEFF BONZON, Treasurer

RON WULFF, Director

# STIFEL

## **Fixed Income Bond Ladder**

Prepared For

## **Tahoe Donner Association**

April 16, 2018

Prepared By

**Evan Price** 

Phone: (205)226-3240

Email: eprice@stifel.com



## Attachment B Laddered Portfolio

## April 16, 2018

04:41:20 PM EDT

| Qty<br>(000) | Cusip     | Rating / FDIC<br>IDC Rank |  | Type<br>State | Coupon | Maturity   | Price     | YTW<br>YTM       | DTW<br>DTM   | Accrued<br>Interest | Principal    | Net Amount   |
|--------------|-----------|---------------------------|--|---------------|--------|------------|-----------|------------------|--------------|---------------------|--------------|--------------|
| 200          | 924397DD1 | A2/AA                     | Vernon Calif Elec Sys Rev Make Whole<br>Call Only - OID - Make Whole Call Exp<br>08/2022 - TAXABLE - AGMC insured  | Muni<br>CA    | 4.500% | 08/01/2022 | \$106.069 | 2.980%<br>2.980% | 3.87<br>3.87 | \$1,925.00          | \$212,138.00 | \$214,063.00 |
| 200          | 432275AE5 | A3/A-                     | Hillsborough Cnty Fla Aviation Auth<br>Customer Fac Charge Rev - Tampa Intl<br>Arpt TAXABLE - Material Events  | Muni<br>FL    | 3.549% | 10/01/2022 | \$102.515 | 2.942%<br>2.942% | 4.10<br>4.10 | \$335.18            | \$205,030.00 | \$205,365.18 |
| 200          | 64971M5G3 | Aa1/AAA                   | New York N Y City Transitional Fin Auth<br>Rev Make Whole Call Only - Make Whole<br>Call Exp 11/2022 - Extraordinary Calls -<br>Gen Purp/Pub Impt Use - TAXABLE -<br>(Build America Bond) - Material Events          | Muni<br>NY    | 4.525% | 11/01/2022 | \$106.355 | 3.015%<br>3.015% | 4.02<br>4.02 | \$4,198.19          | \$212,710.00 | \$216,908.19 |
| 200          | 20772G4X3 | A1/A                      | Connecticut St Make Whole Call Only -<br>Make Whole Call Exp 12/2022 -<br>Extraordinary Calls -<br>Gen Purp/Pub Impt Use - TAXABLE -<br>(Build America Bond) - Material Events                                       | Muni<br>CT    | 5.200% | 12/01/2022 | \$108.219 | 3.268%<br>3.268% | 4.05<br>4.05 | \$3,957.78          | \$216,438.00 | \$220,395.78 |
| 200          | 49127KBY5 | A2/AA                     | Kentucky Economic Dev Fin Auth<br>Louisville Arena Proj - Louisville Arena<br>Make Whole Call Only - Make Whole Call<br>Exp 12/2022 - TAXABLE - Material Events<br>- AGMC insured                                    | Muni<br>KY    | 3.217% | 12/01/2022 | \$101.291 | 2.916%<br>2.916% | 4.23<br>4.23 | \$2,108.92          | \$202,582.00 | \$204,690.92 |
| 200          | 649902P56 | Aa1/AAA                   | New York St Dorm Auth St Persincome<br>Tax Rev Make Whole Call Only - Make<br>Whole Call Exp 02/2023 - Extraordinary<br>Calls - Public Higher Education Use -<br>TAXABLE - (Build America Bond) -<br>Material Events | Muni<br>NY    | 4.904% | 02/15/2023 | \$108.522 | 2.993%<br>2.993% | 4.28<br>4.28 | \$1,716.40          | \$217,044.00 | \$218,760.40 |
| 200          | 91412GWZ4 | Aa2/AA                    | University Calif Revs For Previous Issues<br>See 91412f Make Whole Call Only - Make<br>Whole Call Exp 05/2023 - TAXABLE -<br>Material Events   | Muni<br>CA    | 2.909% | 05/15/2023 | \$100.523 | 2.797%<br>2.797% | 4.63<br>4.63 | \$2,472.65          | \$201,046.00 | \$203,518.65 |
| 200          | 91412GVA0 | Aa2/AA                    | University Calif Revs For Previous Issues<br>See 91412f Make Whole Call Only - Make<br>Whole Call Exp 05/2023 - TAXABLE -<br>Material Events   | Muni<br>CA    | 3.538% | 05/15/2023 | \$103.851 | 2.720%<br>2.720% | 4.57<br>4.57 | \$3,007.30          | \$207,702.00 | \$210,709.30 |



#### Attachment B Laddered Portfolio

## **April 16, 2018**

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| Qty<br>(000) | Cusip                                     | Rating / FDIC<br>IDC Rank                                 | #<br>Issue   | Type<br>State | Coupon | Maturity   | Price     | YTW<br>YTM    | DTW<br>DTM       | Accrued<br>Interest | Principal      | Net Amount     |
|--------------|---|---|--|---------------|--------|------------|-----------|---------------|------------------|---------------------|----------------|----------------|
| 200          | 13034PYP6                                 | A1/AA-  | California Hsg Fin Agy Rev Extraordinary   | Muni          | 2.975% | 08/01/2023 | \$102.034 | 2.561%        | 4.84             | \$1,272.64          | \$204,068.00   | \$205,340.64   |
|              | Calls - Single-Fam Hsg<br>Material Events | Calls - Single-Fam Hsg Use - TAXABLE -<br>Material Events | CA   |               |        |            | 2.561%    | 4.84          |                  |                     |                |                |
| 200          | 200 13067WPF3 Aa1//                       | Aa1/AAA   | California St Dept Wtr Res Cent Vy Proj  | Muni          | 2.601% | 12/01/2023 | \$99.185  | 2.758%        | 5.15             | \$1,719.55          | \$198,370.00   | \$200,089.55   |
|              |   |   | Rev Make Whole Call Only - Make Whole<br>Call Exp 12/2023 - TAXABLE -<br>Material Events | CA            |        |            |           | 2.758%        | 5.15             |                     |                |                |
|              |   |   | Weighted Averages and Totals   |               | 3.792% | 4.84       | \$103.856 | 2.899%        | 4.37             | \$22,713.62         | \$2,077,128.00 | \$2,099,841.62 |
|              |   |   |  |               | Avg    | Avg Yrs    | _Avg      | 2.899%        | 4.37             | Total               | Total          | Total          |
|              |   |   |  |               | Coupon | Maturity   | Price     | Avg<br>Yields | Avg<br>Durations | Accrued<br>Interest | Principal      | Investment     |

| Monthly Coupon Payments                     | Apr/18 | May/18   | Jun/18   | Jul/18 | Aug/18   | Sep/18 | Oct/18  | Nov/18   | Dec/18   | Jan/19 | Feb/19   | Mar/19 | Apr/19  | Total    |
|---|--------|----------|----------|--------|----------|--------|---------|----------|----------|--------|----------|--------|---------|----------|
| California Hsg Fin Agy Rev                  |        |          |          |        | \$2,975  |        |         |          |          | ·      | \$2,975  |        |         | \$5,950  |
| California St Dept Wtr Res Cent Vy Proj Rev |        |          | \$2,341  |        |          |        |         |          | \$2,601  |        |          |        |         | \$4,942  |
| Connecticut St                              |        |          | \$5,200  |        |          |        |         |          | \$5,200  |        |          |        |         | \$10,400 |
| Hillsborough Cnty Fla Aviation Auth         |        |          |          |        |          |        | \$3,549 |          |          |        |          |        | \$3,549 | \$7,098  |
| Kentucky Economic Dev Fin Auth Louisville   |        |          | \$2,877  |        |          |        |         |          | \$3,217  |        |          |        |         | \$6,094  |
| New York N Y City Transitional Fin Auth Rev |        | \$4,525  |          |        |          |        |         | \$4,525  |          |        |          |        |         | \$9,050  |
| New York St Dorm Auth St Persincome Tax     |        |          |          |        | \$4,904  |        |         |          |          |        | \$4,904  |        |         | \$9,808  |
| University Calif Revs For Previous Issues   |        | \$2,909  |          |        |          |        |         | \$2,909  |          |        |          |        |         | \$5,818  |
| University Calif Revs For Previous Issues   |        | \$3,538  |          |        |          |        |         | \$3,538  |          |        |          |        | ,       | \$7,076  |
| Vernon Calif Elec Sys Rev                   |        |          |          |        | \$4,500  |        |         |          |          |        | \$4,500  |        |         | \$9,000  |
| Total                                       | \$0    | \$10,972 | \$10,418 | \$0    | \$12,379 | \$0    | \$3,549 | \$10,972 | \$11,018 | \$0    | \$12,379 | \$0    | \$3,549 | \$75,236 |

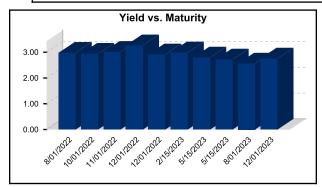
The coupon payment in Apr/18 represents tomorrow to the end of the month, and the payment in Apr/19 represent the first of the month to this day next year.



## **April 16, 2018**

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| Total Principal Total Accrued Interest Total Investment Next 12mo Cpn Cash Flow Maturity Value |             | Average Coupon Average Maturity Average Price Average Current Yield Average Yield to Maturity Average Yield to Worst Average Duration to Worst Average Duration to Maturity | 3.792%<br>4.84yr(s)<br>\$103.856<br>3.630%<br>2.899%<br>2.899%<br>4.37<br>4.37 | Tax Equivalent Yield<br>Federal Tax Rate<br>State Tax Rate | 2.856%<br>0.000%<br>5.000% |
|--|-------------|---|--|--|----------------------------|
|  | Average Dur | ation to Earliest Redemption  | 4.37   |  |                            |







## Attachment B Laddered Portfolio

## April 16, 2018 04:41:20 PM EDT

Additional information available upon request.

Securities identified herein are subject to availability and changes in price/yield.

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Zero coupon securities and municipal securities have unique tax consequences that should be considered before making investment decisions. Tax consequences of these securities may differ between non-taxable (e.g., retirement) accounts and taxable accounts. As with any transaction having tax implications, investors should consult with their tax advisor before making investment decisions designed to generate tax benefits.

Securities identified herein may contain early redemption features, such as a call at issuer's option, which may change the characteristics of the security. If securities are sold prior to maturity, you may receive more or less than your initial investment. When investing in bonds, it is important to note that as interest rates rise, bond prices fall.

Yield and average life information shown for Collateralized Mortgage Obligations are based on prepayment assumptions that may or may not be met. Changes in payments may significantly affect yield and average life. Contact your Financial Advisor for information on CMOs and how they react to different market conditions.

Credit Ratings are provided by Moody's Investor Services and Standard & Poor's. High yield fixed income securities, or fixed income securities that do not have credit ratings from the nationally recognized statistical rating organizations may be subject to greater fluctuations in price and greater risk of loss of income and principal.

Insurance, if specified, relates to the timely payment of principal and interest, and does not guarantee market value or protect against fluctuations in prices resulting from general market volatility. No representation is made as to the insurer's ability to meet its financial commitments.

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For additional information regarding the investments herein and any associated risks (including but not limited to market/credit risks, credit ratings, and specific securities provisions), please contact your Stifel Financial Advisor and/or, if applicable, the prospectus, official statement, or other offering materials for the subject securities.

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## Daily Treasury Yield Curve Rates attachment C

## U.S. DEPARTMENT OF THE TREASURY

#### **Resource Center**

## **Daily Treasury Yield Curve Rates**

Get updates to this content.

04/20/18

1.65

1.81

2.01

2.22

2.46

2.62

These data are also available in XML format by clicking on the XML icon.

The schema for the XML is available in XSD format by clicking on the XSD icon.

If you are having trouble viewing the above XML in your browser, click here.

To access interest rate data in the legacy XML format and the corresponding XSD schema, click here.

| Select type of Interest Rate Data |               |      |             |      |      |      |      |      |       |       |       |  |
|-----------------------------------|---------------|------|-------------|------|------|------|------|------|-------|-------|-------|--|
|                                   | ury Yield Cur |      | <b>▽</b> Go |      |      |      |      |      |       |       |       |  |
| Select Time                       |               |      |             | _    |      |      |      |      |       |       |       |  |
| Current Mo                        | nth           |      | <u> </u>    | Go   |      |      |      |      |       |       |       |  |
| Date                              | 1 Mo          | 3 Mo | 6 Mo        | 1 Yr | 2 Yr | 3 Yr | 5 Yr | 7 Yr | 10 Yr | 20 Yr | 30 Yr |  |
| 04/02/18                          | 1.68          | 1.77 | 1.92        | 2.08 | 2.25 | 2.37 | 2.55 | 2.67 | 2.73  | 2.85  | 2.97  |  |
| 04/03/18                          | 1.70          | 1.75 | 1.92        | 2.09 | 2.28 | 2.41 | 2.60 | 2.73 | 2.79  | 2.90  | 3.02  |  |
| 04/04/18                          | 1.67          | 1.71 | 1.90        | 2.07 | 2.28 | 2.42 | 2.61 | 2.73 | 2.79  | 2.91  | 3.03  |  |
| 04/05/18                          | 1.67          | 1.72 | 1.93        | 2.07 | 2.30 | 2.45 | 2.64 | 2.76 | 2.83  | 2.95  | 3.07  |  |
| 04/06/18                          | 1.68          | 1.73 | 1.91        | 2.06 | 2.27 | 2.40 | 2.58 | 2.70 | 2.77  | 2.89  | 3.01  |  |
| 04/09/18                          | 1.67          | 1.76 | 1.93        | 2.08 | 2.29 | 2.43 | 2.60 | 2.72 | 2.78  | 2.89  | 3.02  |  |
| 04/10/18                          | 1.63          | 1.74 | 1.93        | 2.09 | 2.32 | 2.45 | 2.62 | 2.74 | 2.80  | 2.89  | 3.02  |  |
| 04/11/18                          | 1.64          | 1.73 | 1.95        | 2.09 | 2.32 | 2.45 | 2.62 | 2.72 | 2.79  | 2.87  | 2.99  |  |
| 04/12/18                          | 1.65          | 1.75 | 1.95        | 2.11 | 2.34 | 2.49 | 2.67 | 2.78 | 2.83  | 2.92  | 3.05  |  |
| 04/13/18                          | 1.64          | 1.76 | 1.97        | 2.12 | 2.37 | 2.51 | 2.67 | 2.77 | 2.82  | 2.91  | 3.03  |  |
| 04/16/18                          | 1.64          | 1.79 | 1.98        | 2.12 | 2.39 | 2.52 | 2.69 | 2.78 | 2.83  | 2.91  | 3.03  |  |
| 04/17/18                          | 1.68          | 1.80 | 2.02        | 2.16 | 2.41 | 2.52 | 2.68 | 2.77 | 2.82  | 2.89  | 3.00  |  |
| 04/18/18                          | 1.67          | 1.81 | 2.01        | 2.17 | 2.42 | 2.57 | 2.73 | 2.83 | 2.87  | 2.95  | 3.06  |  |
| 04/19/18                          | 1.67          | 1.82 | 2.01        | 2.21 | 2.44 | 2.58 | 2.77 | 2.87 | 2.92  | 3.01  | 3.11  |  |
|                                   |               |      |             |      |      |      |      |      |       |       |       |  |

<sup>\* 30-</sup>year Treasury constant maturity series was discontinued on February 18, 2002 and reintroduced on February 9, 2006. From February 18, 2002 to February 8, 2006, Treasury published alternatives to a 30-year rate. See Long-Term Average Rate for more information.

2.91

2.96

3.04

3.14

2.80

Treasury discontinued the 20-year constant maturity series at the end of calendar year 1986 and reinstated that series on October 1, 1993. As a result, there are no 20-year rates available for the time period January 1, 1987 through September 30, 1993.

Treasury Yield Curve Rates. These rates are commonly referred to as "Constant Maturity Treasury" rates, or CMTs. Yields are interpolated by the Treasury from the daily yield curve. This curve, which relates the yield on a security to its time to maturity is based on the closing market bid yields on actively traded Treasury securities in the over-the-counter market. These market yields are calculated from composites of quotations obtained by the Federal Reserve Bank of New York. The yield values are read from the yield curve at fixed maturities, currently 1, 3 and 6 months and 1, 2, 3, 5, 7, 10, 20, and 30 years. This method provides a yield for a 10 year maturity, for example, even if no outstanding security has exactly 10 years remaining to maturity.

Treasury Yield Curve Methodology. The Treasury yield curve is estimated daily using a cubic spline model. Inputs to the model are primarily bid-side yields for on-the-run Treasury securities. See our Treasury Yield Curve Methodology page for details.

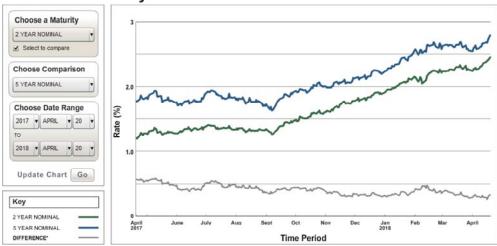
Negative Yields and Nominal Constant Maturity Treasury Series Rates (CMTs). Current financial market conditions, in conjunction with extraordinary low levels of interest rates, have resulted in negative yields for some Treasury securities trading in the secondary market. Negative yields for Treasury securities most often reflect highly technical factors in Treasury markets related to the cash and repurchase agreement markets, and are at times unrelated to the time value of money.

https://www.treasury.gov/resource-center/data-chart-center/intere... 4/20/2018

## U.S. DEPARTMENT OF THE TREASURY

## **Resource Center**

**Historical Treasury Rates** 



View Text Version of Historical Treasury Rates

\*This is the difference between the longer maturity rate and the shorter one included in the comparison. If both a nominal and real maturity are selected, then this is the difference between the nominal maturity and the real.