## SESSION 5

# Guided Tutorial for Bloomberg and Other Investment Databases



### VISHAL THACKER

Assistant Treasurer/
Chief Investment Officer
County of Alameda

Chief Investment Officer
Office of the Treasurer & Tax Collector
City & County of San Francisco



## **Bloomberg Tutorial**



- BTMM
- FED
- WIRP
- NIM2/NIM3
- DES
  - ✓ INV Parties
  - ✓ALLQ
  - ✓ Trade History
  - √Schedules

- YAS
- 0AS1
- FIT
- BOOM
- BANK
- IMGR
- DCX/CDR
- Launchpad

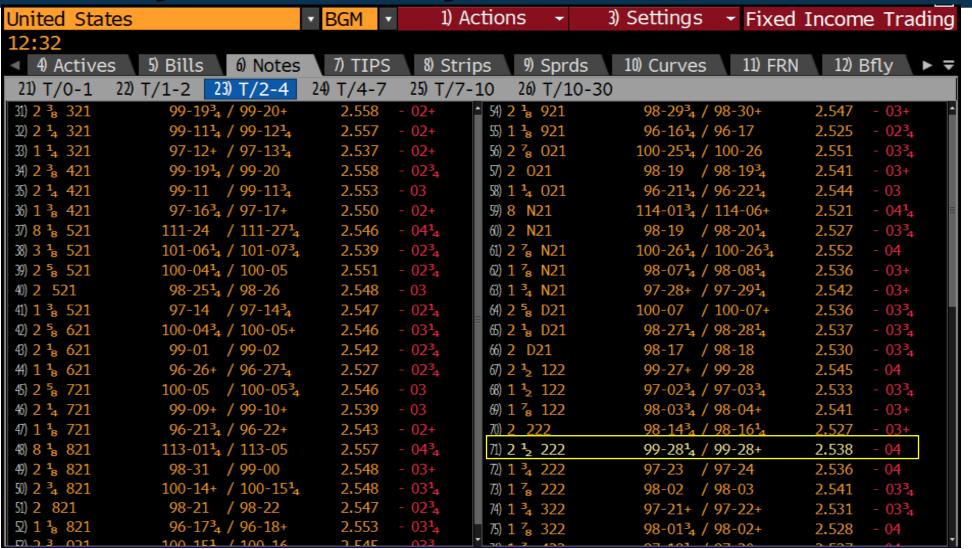
- SPDL
- BXT/SXT
- ADN
- PICK
- TOP
- ECO
- SWPM
- HELP

## **Electronic Trading - Overview**



- Extremely efficient for transacting liquid fixed income instruments such as US Treasuries, Federal Agency bonds, Commercial Paper, Municipal Commercial Paper, and Corporate notes
- Examples of available platforms: Bloomberg FIT and BOOM, TradeWeb, and Market Access
- Increased market transparency
- Ease of best execution

### **Electronic Trading - FIT on Bloomberg**



### Electronic Trading - FIT on Bloomberg (cont. 2 of 3)



### Electronic Trading - FIT on Bloomberg (cont. 3 of 3)

						Page 1/1	Activity Panel
Х		T 2 ½ 02/15/22			1:17	Detail	Pass
	Buy	Dealer	Quantity	Yield	Price		Status
Cusip	9128286C9	DB	25,000,000	2.537	99-28 <sup>5</sup> 8	Lift	Firm 0:01
Settle	03/04/19	CITI	25,000,000	2.540	99-28³ <sub>8</sub>	Lift	Firm 0:01
CBBT Px	99-281/99-28+	RBSM	25,000,000	2.538	99-28+	Lift	Firm 0:04
CBBT Yld	2.541/2.538	MS	25,000,000	2.538	99-28+	Lift	Firm 0:02
		DIWA	25,000,000				Sent Ack

### **Electronic Trading - BOOM on Bloomberg**

Discount Notes Trading	Access Searches	→ Export	Setting	s <b>▼</b> Money	Market Offerings
93) Refine Search DEFAULT	Prim & Sec	√ Group	by None	▼ 88)	Sellback 89) Chart
<ul><li>Table</li><li>RateRun</li></ul>					
AskSz (M) Issuer	Maturity SD	Dsc/Cpn	AskYld Dlr	Pgm Ticker	DTM Time •
				•	<b>▼</b>
3,000,000 FHLB DISC CORP	03/04/19	2.300	2.300 SUN	AGD FHDN	3 05:25
999,999 FHLB DISC CORP	03/04/19	2.300	2.300 CITI	AGD FHDN	3 12:11
100,000 INTL FINANCE	03/05/19	2.320	2.353 UBS	AGD IFCD	4 05:16
1,000,000 FNMA DISCOUNT	03/05/19 1	2.280	2.312 UBS	AGD FNDN	4 05:15
500,000 INTL FINANCE	03/05/19 - 03/07/19	2.310	2.311 JPM	AGD IFCD	4 - 6 07:04
50,000 INTL FINANCE	03/05/19	2.310	2.310 BARC	AGD IFCD	4 12:32
800,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 WLMS	AGD FNDN	4 07:00
100,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 SNC	AGD FNDN	4 07:00
100,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 LOOP	AGD FNDN	4 07:00
500,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 WFS	AGD FNDN	4 07:00
» 500,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 TD	AGD FNDN	4 07:00
500,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 PIPJ	AGD FNDN	4 07:00
500,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 JPM	AGD FNDN	4 07:00
850,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 JEFF	AGD FNDN	4 07:00
500,000 FNMA DISCOUNT	03/05/19 1	2.280	2.280 DIWA	AGD FNDN	4 07:00
25,000 IADB DISCOUNT	03/07/19 1	2.330	2.330 BARC	AGD IADN	6 12:32
25,000 IADB DISCOUNT	03/08/19 - 03/15/19	2.310	2.311 TD	AGD IADN	7 - 14 06:28
75,000 FHLB DISC CORP	03/14/19	2.360	2.362 CITI	AGD FHDN	13 12:23
100,000 INTL FINANCE	03/18/19	2.330	2.365 UBS	AGD IFCD	17 05:16
25,000 IADB DISCOUNT	03/18/19 - 03/22/19	2.320	2.323 TD	AGD IADN	17 - 21 06:28
500,000 INTL FINANCE	03/18/19 - 03/19/19	2.320	2.323 JPM	AGD IFCD	17 - 18 07:04
50,000 INTL FINANCE	03/18/19	2.320	2.320 BARC	AGD IFCD	17 12:32
245 000 FHIR DISC CORP	03/21/19	2 340	2 376 HRS	AGD FHDN	20 10.44

### Electronic Trading - BOOM on Bloomberg (cont. 2 of 2)



## FINRA - Financial Industry Regulatory Authority

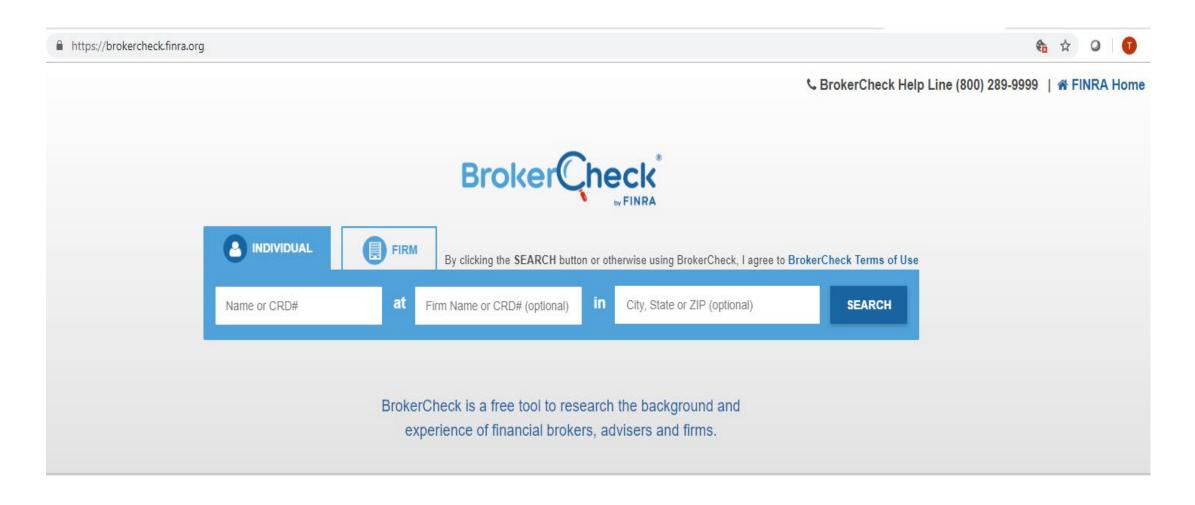


- www.finra.org
- Dedicated to investor protection and market integrity through effective regulation of broker-dealers
- A not-for-profit authorized by Congress
- Great resource for market and broker-dealer information
- Has authority to fine, suspend, or bar brokers for rule infractions

### FINRA - BrokerCheck

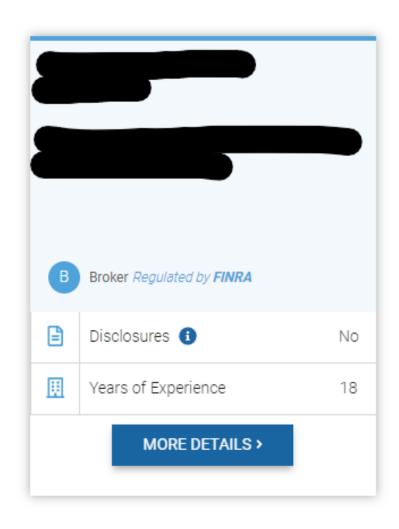


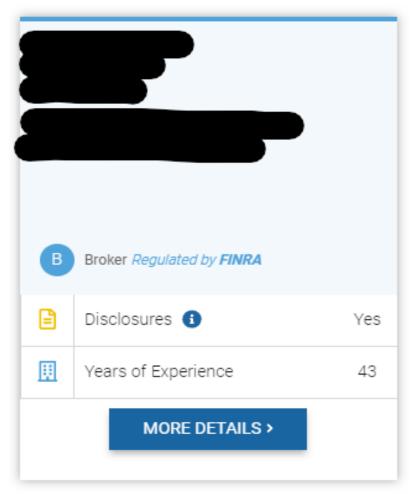
### https://brokercheck.finra.org



## FINRA - Broker Check (cont. 2 of 2)







## **Understanding and Evaluating Trading Costs**



- It is part of a public funds manager's fiduciary duty to understand and control trading costs
- Broker/Dealers typically work for a predetermined concession on new bullet issues
- Trades should be done on a competitive basis
- Trading costs are typically the difference between the bid/ask spread on secondary issues
- Costs are a function of trade size, issue's liquidity, and trade type (broker vs dealer)
- Pricing supplements and TRACE are good sources
- No rule on just asking

## **Considerations in Evaluating Trade Opportunities**



- Relative value the spread over the risk-free rate to compensate for additional risks of the investment opportunity
- MMT = matched maturity treasury
- G-spread intended to reflect MMT spread but often not a true representation due to interpolation issues
- Yield comparisons understand the differences due to differences in day count conventions
- The offering spread is not necessarily the MMT
- Bad Day Consideration

## Trading off the Treasury On-the-Run Curve



## Offering Example - MMT .008

IJJUL	C///	TIAT .	JIZE	SPALAD	nZ)	III		COSIF	
FFCB	3.500	12/23/26	15MM+	-2.50	2YR	MTN	3133	ERUE9	
FFCB	3.500	9/10/29	51MM+	+4.00	5YR	MTN	3133	ERSP7	
FFCB 3 <sup>1</sup>	<sup>1</sup> <sub>2</sub> 09/10/2	9 \$ <b>†99.822</b>	030	99.735/9	99.909	3.559/	3.520		
<b>€T</b> ∋		At 8:15		-	- X	Sourc	ce BVAL		
FFCB 3 <sup>1</sup> <sub>2</sub>	09/10/29	Corp Setting	js ∗			Yield a	and Spre	ead Analysi	S
				D	Notes	95)	Buy	96) Sell	
1) Yield &	Spread	2) Graphs 3) Pricin	ng 4) Descr			6) Yields			
		( 3133ERSP7 )		Risk					
Spread	4.00 bp		/31/29			Wor	kout	O	AS
Price	99.804735		7+ 08:47:52	<ul><li>M.Dur</li></ul>	<ul><li>Dur</li></ul>	4	.522	4.5	14
Yield	3.543	Wst 3.5032	41 S/A 🔻	Risk		4	.517	4.5	10
Wkout 0	9/10/2029	@ 100.00 Conse	nsus Yld 3 6	Convexity		0	.237	0.2	36
Settle	09/20/24	09/20/2	<u>'</u> 4	DV - 01	on 51MM	23	,039	23,0	00
				Benchmark	Risk	4	.519	4.5	11
				Risk Hedge	:	50,9	984 M	50,983	M
				Proceeds H	ledge	50,5	72 M		
Spread	ls Yi	eld Calculations		Invoice					
11) G-Spr	3.8 St	reet Convention	3.543	Face				51,000	M
12) I-Sprd	35.6 <b>E</b>	įuiv <mark>1 →</mark> /Yr	3.574	Principal			50,	900,414.71	
13) Basis	7.3 M	mkt (Act/ <mark>360 - )</mark>		Accrued (1	0 Days)			49,583.33	
14) Z-Spro	30.7 Tr	ue Yield	3.543	Total (USD	9)		50,9	949,998.04	
15) ASW	31.0 Ct	urrent Yield	3.507						
16) OAS	3.8								
		% CG 23.800 %)	2.105						
Tecus Drie	$c_0 = 99.582$	OID Bond with A	cauisition						

## FINRA - Trade and Price Discovery (TRACE)



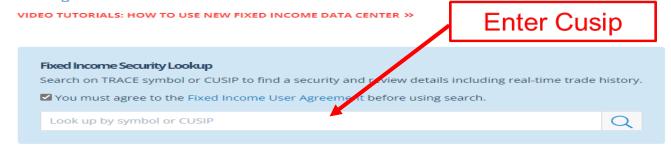


FINRA – www.finra.org, For Investors, Tools & Calculators, FINRA Fixed Income Data

> FINRA DATA

#### Fixed Income Data

FINRA provides comprehensive, real-time access to fixed income security and trade information compiled from multiple sources, including but not limited to TRACE, Refinitiv, S&P, Moody's, and Black Knight Technologies. FINRA and its information providers do not guarantee the accuracy, completeness or timeliness of the data. Individuals should not make investment or other financial decisions solely on the basis of this data. Use of this site is subject to the Fixed Income Data User Agreement.



#### **About Investing**

- Basics To Know About Investing in Bonds
- BrokerCheck
- Investor Tools, Calculators, and Quizzes

#### Fixed Income Securities and Trade Activity

Fixed income security and trade activity data. Learn more about Types of Bonds.

#### **Corporate and Agency Bond Data**

Corporate and agency bonds are investor loans to corporations or government-sponsored enterprises other than US treasury. View end-of-day data for multiple bonds in a grid view.

- Browse Bonds
- View Bond Trade Activity

#### **Treasuries and US Savings Bonds**

Treasuries and US Savings Bonds are backed and issued by the US government.

- Browse Treasury Securities
- View Treasury Trade Activity

#### Asset-Backed Securities (ABS)

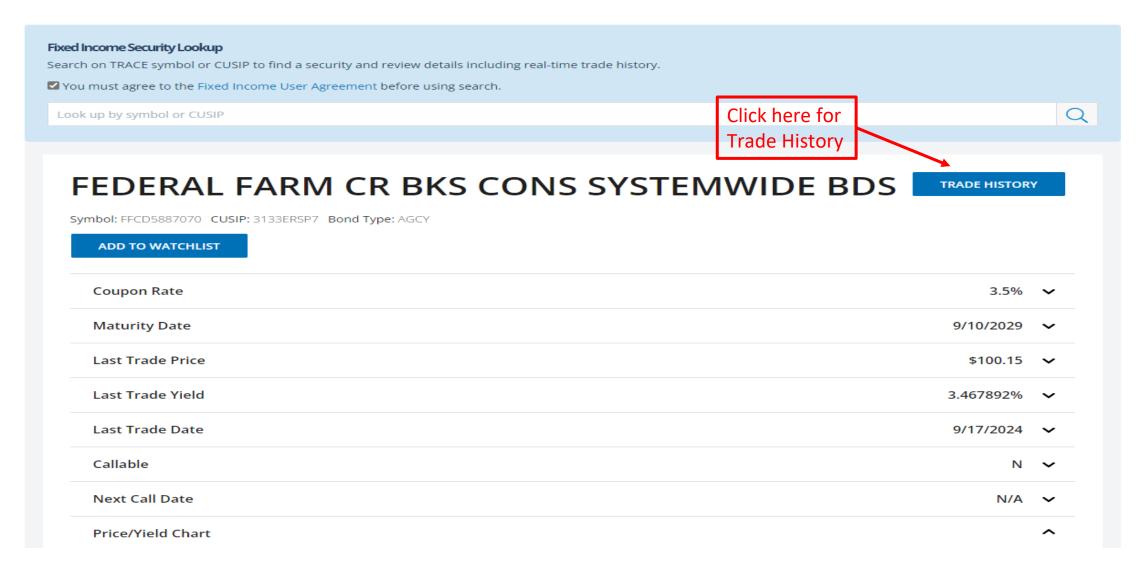
An ABS offers returns based on the repayment of debt owed by a pool of consumers.

- ABS Securities
- ABS Trade Activity

## FINRA - Trade and Price Discovery (TRACE) (cont. 2 of 3)



FINRA DATA > FIXED INCOME DATA



## FINRA - Trade and Price Discovery (TRACE) (cont. 3 of 3)



### **Trade History**

Real-time trade history for up to three calendar years. For up to 10 years of end of day pricing, see Trade Activity.

Symbol: FFCD5887070 Issuer Name: FEDERAL FARM CR BKS CONS SYSTEMWIDE BDS Coupon Rate: 3.5

SHOW RESULTS

Total Count: 87 □ Columns ▼ Filter

Symbol	Issuer Name	Date ↓	Quantity	Price	Yield	Time ↓	Side	Contra Party Type
FFCD5887070	FEDERAL FARM CR	2024-09-17	1000000	100.145	3.467892	13:44:45	s	С
FFCD5887070	FEDERAL FARM CR	2024-09-17	800000	100.5901	3.370019	13:43:22	S	С
FFCD5887070	FEDERAL FARM CR	2024-09-17	250000	100.0923	3.479504	13:42:36	s	D
FFCD5887070	FEDERAL FARM CR	2024-09-17	800000	100.0958	3.478705	13:41:38	S	D
FFCD5887070	FEDERAL FARM CR	2024-09-17	1000000	100.0802	3.482171	13:41:10	s	D
FFCD5887070	FEDERAL FARM CR	2024-09-17	5000000	100.063	3.485963	11:55:04	S	С
FFCD5887070	FEDERAL FARM CR	2024-09-17	5000000	100.0997	3.477873	11:14:53	s	С
FFCD5887070	FEDERAL FARM CR	2024-09-17	53000	100.063	3.485963	10:16:52	S	c 18
FFCD5887070	FEDERAL FARM CR	2024-09-17	1000000	100.03	3.49324	10:10:20	s	D

Maturity Date: 9/10/2029

## FINRA – Excessive Commission Execution Example



#### **Bond Trade Activity Search Results**

ssue: UBS4	1154104	De	escriptio	n: UBS AC	STAMF	ORD B	RH MEDIUM TE	RM S	R DEP N	Cou	pon Rate	2.375		Maturi	ty Date: 08/14/201
	Execution														
Date 🕶	Time	Settlement	Status	Quantity	Price	Yield	Remuneration	ATS	Modifier	2nd Modifier	Special	As-Of	Side	Reporting Party Type	Contra Party Typ
1/13/2017	16:36:00	11/15/2017	Т	1150000	100.463	2.103	М		_	_	-	_	В	D	
1/13/2017	13:48:32	11/15/2017	т	2000000	100.590	2.029	М		_	_	-	-	s	D	
1/13/2017	13:40:37	11/15/2017	т	2000000	100.504	2.079			_	_	-	-	s	D	
1/13/2017	13:29:17	11/15/2017	т	351000	100.418	2.129			_	_	-	-	s	D	ı
1/13/2017	13:15:19	11/15/2017	Т	250000	100.393	2.144	N		_	_	_	-	s	D	
1/10/2017	16:00:46	11/14/2017	Т	250000	100.535	2.061	M		_	_	_	-	s	D	
1/10/2017	15:00:50	11/14/2017	Т	300000	100.503	2.08	N		_	_	_	-	s	D	
1/10/2017	12:01:38	11/14/2017	т	250000	100.489	2.088			_	_	-	_	s	D	
1/10/2017	09:21:12	11/14/2017	Т	5000000	100.947	1.822	<u> </u>		_		-	-	s	D	
1/10/2017	09:02:00	11/14/2017	Т	5000000	100.507	2.078			_	_	-	-	S	D	
1/10/2017	09:01:00	11/14/2017	Т	5000000	100.527	2.066			_	_	_	-	s	D	
1/9/2017	13:41:51	11/13/2017	т	700000	100.620	2.012	М		_	_	-	-	s	D	
1/9/2017	13:41:00	11/13/2017	Т	700000	100.569	2.042			_	_	_	_	s	D	I
1/9/2017	13:09:33	11/13/2017	Т	5000000	100.528	2.066			_	_	-	-	s	D	ı
1/9/2017	12:04:00	11/13/2017	т	5MM+	100.554	2.051	M		_	_	-	-	В	D	
1/8/2017	15:47:24	11/10/2017	т	1200000	100.566	2.045	М		_	_	-	_	s	D	
1/8/2017	15:01:43	11/13/2017	т	300000	100.547	2.055	М		_	_	_	_	В	D	
1/8/2017	14:41:39	11/10/2017	т	100000	100.568	2.044	М		Z	_	-	-	s	D	
1/7/2017	12:06:19	11/9/2017	т	5MM+	100.592	2.031	М		_	_	_	-	s	D	
1/7/2017	10:55:46	11/9/2017	т	350000	100.579	2.038	N		_	_	_	_	В	D	

### FINRA – Excessive Commission Execution Example (cont. 2 of 2)

THE ASURIER AS

Last Updated: 03/06/2019

#### **Bond Trade Activity Search Results**

From 03/0	06/2018	to 03/06	/2019	GO	Glo	ossary	of Terms								
Issue: FHL	N4465601					Descri	ption: FEDERAL	номі	E LN BKS	Co	upon Rate	e: <b>1.375</b>		Maturi	ty Date: 03/18/2019
	Execution														
Date 🕶	Time	Settlement	Status	Quantity	Price	Yield	Remuneration	ATS	Modifier	2nd Modifier	Special	As-Of	Side	Reporting Party Type	Contra Party Type
3/6/2019	09:29:03	3/7/2019	т	225000	99.965	2.505	M		_	_	-	-	В	D	С
3/6/2019	09:11:21	3/7/2019	т	225000	99.965	2.505			_	_	_	_	s	D	D
3/6/2019	09:09:30	3/7/2019	Cancel	225000	99.965	2.505	М		_	_	-	-	В	D	С
3/6/2019	09:09:30	3/7/2019	Cancel	225000	99.965	2.505	М		_	_	_	-	В	D	С
3/4/2019	13:33:45	3/6/2019	т	300000	99.966	2.381	М		_	_	-	-	В	D	С
3/4/2019	12:24:11	3/4/2019	т	1000000	99.961	2.364	М		_	_	-	-	В	D	С
3/1/2019	12:48:07	3/4/2019	т	2540000	99.960	2.402	М		_	_	-	-	s	D	С
2/28/2019	10:25:03	2/28/2019	т	750000	99.955	2.178	М		_	_	_	_	В	D	С
2/27/2019	16:28:07	2/28/2019	т	5MM+	99.955	2.173	М		_	_	-	-	В	D	С
2/27/2019	16:24:29	2/28/2019	т	400000	99.950	2.262	N		_	_	-	-	s	D	С
2/27/2019	16:24:29	2/28/2019	т	95000	99.950	2.262	N		_	_	-	-	s	D	С
2/27/2019	16:24:29	2/28/2019	т	30000	99.950	2.262	N		_	_	-	-	s	D	С
2/27/2019	16:23:23	2/28/2019	т	525000	99.950	2.262			_	_	_	-	s	D	D
2/27/2019	15:22:25	2/28/2019	т	1740000	99.957	2.137	м		_	_	_	-	В	D	С
2/27/2019	12:40:00	2/28/2019	т	250000	99.956	2.155					_	_	s	D	D
2/27/2019	12:40:00	2/28/2019	т	250000	100.073	0.061	<del>"</del>		_	_	_	-	s	D	С
2/27/2019	12:40:00	2/28/2019	Т	250000	99.956	2.155		Y	_	_	-	-	S	D	D
2/26/2019	15:40:08	2/27/2019	т	300000	99.954	2.151		Y	_	_	-	-	s	D	D
2/26/2019	15:40:08	2/27/2019	т	300000	99.954	2.151	N		_	_	_	-	s	D	С
2/26/2019	14:31:58	2/28/2019	т	5MM+	99.957	2.137	М		_	_	_	-	В	D	С

## **Treasury Curve Resources (No cost)**



www.cnbc.com/bonds/

U.S. Treasurys		
SYMBOL ‡	YIELD ‡	CHANGE ‡
US 1-MO	4.928	-0.064 ▼
US 2-MO	4.936	-0.052 ▼
US 3-MO	4.869	+0.006 🛦
US 4-MO	4.795	-0.006 ▼
US 6-MO	4.581	+0.026
US 1-YR	4.02	+0.043 🛦
US 2-YR	3.599	+0.044 🛦
US 3-YR	3.458	+0.043 🛦
US 5-YR	3.438	+0.033 🛦
US 7-YR	3.53	+0.028
US 10-YR	3.644	+0.023 🛦
US 20-YR	4.028	+0.025 🛦
US 30-YR	3.957	+0.02 🛦

## Treasury Curve Resources (No cost) (cont. 2 of 2)



# www.bloomberg.com/markets/rates-bonds/government-bonds/us

Treasury Yi	ields					
NAME	COUPON	PRICE	YIELD	1 MONTH	1 YEAR	TIME (EDT)
GB3:GOV 3 Month	0.00	4.71	4.83%	-38	-62	4:12 PM
GB6:GOV 6 Month	0.00	4.43	4.52%	-43	-97	4:12 PM
GB12:GOV 12 Month	0.00	3.83	4.00%	-48	-142	4:12 PM
GT2:GOV 2 Year	3.75	100.28	3.60%	-45	-144	4:12 PM
GT5:GOV 5 Year	3.63	100.84	3.44%	-32	-103	4:12 PM
GT10:GOV 10 Year	3.88	101.89	3.65%	-24	-69	4:12 PM
GT30:GOV 30 Year	4.25	105.08	3.96%	-18	-46	4:12 PM

## SOURCES FOR ECONOMIC DATA: FEDERAL RESERVE BANK OF NEW YORK WWW.NEWYORKFED.ORG/RESEARCH/DATA\_INDICATORS



FEDERAL RESERVE BANK of NEW YORK Serving the Second District and the Nation

About the New York Fed Markets & Policy Implementation Economic Research Financial Institution Supervision Financial Services & Infrastructure Outreach & Education

home > economic research >

### **Data and Indicators**

The Research and Statistics Group provides the following links to online sources of economic data produced by the New York Fed and other Reserve Banks.

#### KEY DATA FROM THE NEW YORK FED



**Business Leaders Survey** 

A monthly survey of service firms in New York State, northern New Jersey and southwestern Connecticut, conducted by the New York Fed.



Empire State Manufacturing Survey

A monthly survey of manufacturers in New York State, conducted by the New York Fed.

#### Supplemental Survey Report

Summary of responses to topical questions from the *Empire State Manufacturing Survey* and the

#### DYNAMIC DATA AND MAPS FROM THE NEW YORK FED

#### Eight Different Faces of the Labor Market

New monthly release provides timely updates on national labor market conditions. Dynamic charts depict trends in eight key categories: unemployment, employment, hours, labor demand, job availability, job loss rate, wages, and mismatch.



#### The Labor Market for Recent College Graduates

This interactive web feature presents a wide range of job market metrics for recent college graduates, including trends in unemployment rates, underemployment rates, and wages. Data are updated regularly and available for download.

#### For-Profits in the Higher Education Landscape

Interactive maps and charts shed light on the unprecedented growth, market share, student loans, tuition pricing, federal grants, and more for for-profit

#### TOOLS AND INDICATORS FROM THE NEW YORK FED



#### Economic Indicators Calendar

A calendar showing the date and time of key economic data releases. Links to data sources are provided when available.



#### Underlying Inflation Gauge (UIG)

The New York Fed Staff UIG measures capture sustained movements in inflation from information contained in a broad set of price, real activity, and financial data. We share estimates and downloadable data on a monthly basis.

#### FROM OTHER RESERVE BANKS

#### FRED (Federal Reserve Economic Data) OFFSITE

A database developed by the St. Louis Fed that consists of more than 213,000 U.S. and international economic time series. Users can download and interact with the data.

#### Real-Time Data Set for Macroeconomists

A data set developed by the Philadelphia Fed that consists of vintages, or snapshots, of time series of major macroeconomic variables.

### SOURCES FOR ECONOMIC DATA: FEDERAL RESERVE BANK OF ST LOUIS WWW.STLOIUSFED.ORG FRED ECONOMIC DATA



# QUESTIONS?



VISHAL THACKER

Assistant Treasurer/
Chief Investment Officer
County of Alameda

HUBIE WHITE, CFA, CTP

Chief Investment Officer

Office of the Treasurer & Tax Collector

City & County of San Francisco

