

IACO Conference – November 2022

US Treasury Securities – Soup to Nuts

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Illinois Public Funds Investment Act

FINANCE

(30 ILCS 235/) Public Funds Investment Act.

(30 ILCS 235/0.01) (from Ch. 85, par. 900)

Sec. 0.01. Short title. This Act may be cited as the Public Funds Investment Act.

(Source: P.A. 86-1324.)

(30 ILCS 235/1) (from Ch. 85, par. 901)

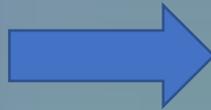
Sec. 1. The words "public funds", as used in this Act, mean current operating funds, special funds, interest and sinking funds, and funds of any kind or character belonging to or in the custody of any public agency.

The words "public agency", as used in this Act, mean the State of Illinois, the various counties, townships, cities, towns, villages, school districts, educational service regions, special road districts, public water supply districts, fire protection districts, drainage districts, levee districts, sewer districts, housing authorities, the Illinois Bank Examiners' Education Foundation, the Chicago Park District, and all other political corporations or subdivisions of the State of Illinois, now or hereafter created, whether herein specifically mentioned or not. This Act does not apply to the Illinois Prepaid Tuition Trust Fund, private funds collected by the Illinois Conservation Foundation, or pension funds or retirement systems established under the Illinois Pension Code, except as otherwise provided in that Code.

The words "governmental unit", as used in this Act, have the same meaning as in the Local Government Debt Reform Act.

(Source: P.A. 98-297, eff. 1-1-14.)

Illinois Public Funds Investment Act – Authorized Investments



(30 ILCS 235/2) (from Ch. 85, par. 902)

Sec. 2. Authorized investments.

(a) Any public agency may invest any public funds as follows:

(1) in bonds, notes, certificates of indebtedness, treasury bills or other securities now or hereafter issued, which are guaranteed by the full faith and credit of the United States of America as to principal and interest;

(2) in bonds, notes, debentures, or other similar obligations of the United States of America, its agencies, and its instrumentalities;

(3) in interest-bearing savings accounts, interest-bearing certificates of deposit or interest-bearing time deposits or any other investments constituting direct obligations of any bank as defined by the Illinois Banking Act;

(4) in short-term obligations of corporations organized in the United States with assets exceeding \$500,000,000 if (i) such obligations are rated at the time of purchase at one of the 3 highest classifications established by at least 2 standard rating services and which mature not later than 270 days from the date of purchase, (ii) such purchases do not exceed 10% of the corporation's outstanding obligations, and (iii) no more than one-third of the public agency's funds may be invested in short-term obligations of corporations under this paragraph (4);

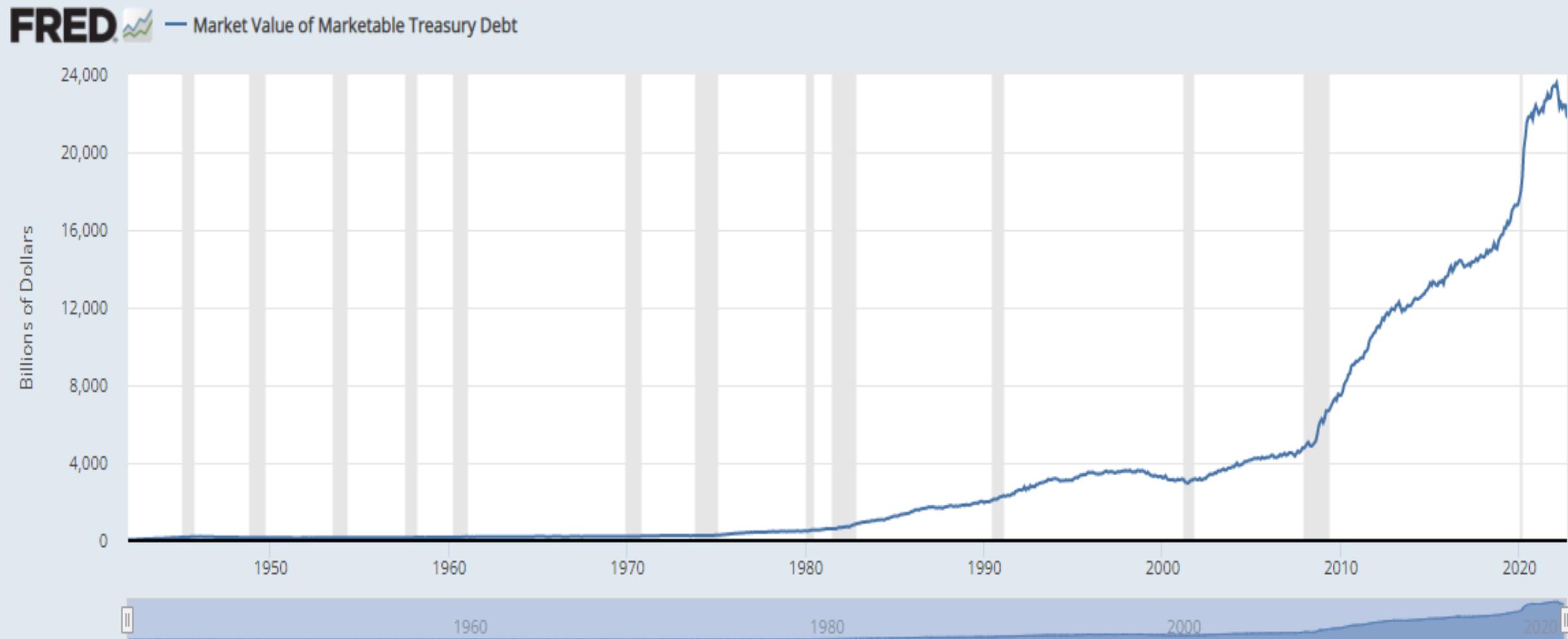
(4.5) in obligations of corporations organized in the United States with assets exceeding \$500,000,000 if (i) such obligations are rated at the time of purchase at one of the 3 highest classifications established by at least 2 standard rating services and which mature more than 270 days but less than 3 years from the date of purchase, (ii) such purchases do not exceed 10% of the corporation's outstanding obligations, and (iii) no more than one-third of the public agency's funds may be invested in obligations of corporations under this paragraph (4.5); or

What Are US Treasury Securities

- U.S. Treasury Securities—such as bills, notes and bonds—are debt obligations of the U.S. government. When you buy a U.S. Treasury security, you are lending money to the federal government for a specified period of time.
- Because these debt obligations are backed by the “full faith and credit” of the government, and thus by its ability to raise tax revenues and print currency, U.S. Treasury securities – or "Treasuries" – are generally considered the safest of all investments.
- They are viewed in the market as having virtually no “credit risk,” meaning that it is highly probable your interest and principal will be paid fully and on time

Source: [Investinginbonds.com](https://www.investinginbonds.com)

Historical Market Value of US Treasury Securities



Shaded areas indicate U.S. recessions.

Source: Federal Reserve Bank of Dallas

fred.stlouisfed.org

US Treasury Statistics

US Treasury Securities Statistics

SIFMA Research tracks U.S. Treasury market issuance (gross and net), average daily trading volume (primary dealer), outstanding and yield data, as well as information on holders of UST. All data is broken out by tenor and is downloadable by monthly, quarterly and annual statistics including trend analysis.

YTD statistics include:

- Issuance (as of October) \$13.8 trillion, -13.5% Y/Y
- Trading (as of October) \$622.0 billion ADV, +0.4% Y/Y
- Outstanding (as of October) \$23.7 trillion, +7.3% Y/Y

[Download xls](#)

US Treasury Securities Issuance (\$B)

Hover values listed in order of legend labels.



Source: SIFMA

Differences and Pros & Cons of US Treasury Securities vs. CDs

Pros:

- US Treasuries DO NOT NEED COLLATERAL – Only Bank Deposits / CD's Need Collateral
- Therefore, you don't need to worry about staying under \$250,000 - You can buy any Amount of US Treasury
- More Flexible on Maturity Dates than Brokered CDs – Treasuries Have Specific Maturity Dates
- Much More Liquid in Secondary Market

Neutral:

- Yields are Constantly Changing – Intraday/ Daily / Stay in Line with Bond Market Movement

Cons:

- A Little More Complicated from an Accounting Perspective –Accrued Interest, Premiums, Discounts, etc..., but it's also Not Rocket Science
- Fluctuations and Changes in Market Value – Unrealized Gains/Losses
- Need an Investment Partner to Purchase Treasury Bonds – Paperwork – Open up Separate Investment Account

Treasury Securities – Information Needed – How They Work

T-Bills

- Maturities less than 1yr
- Trade using a discount rate – Pay Interest at Maturity (Zero Coupon) – Discounted Price
- Usually mature on Thursdays
- Same or Next Day Settle

Treasury Notes

- Maturities between 1-10 years – Mature on 15th and Last Day of Month
- Coupon Bonds – Prices Paid are Par, Premiums, Discounts
- Pay Interest Semi-Annually (Every 6-months)
- Same or Next Day Settle

Treasury Bonds

- Maturities between 10-30 years - Mature on 15th and Last Day of Month
- Coupon Bonds - Prices Paid are Par, Premiums, Discounts
- Pay Interest Semi-annually
- Same or Next Day Settle

Treasury Strips

- Maturities between 0-30 years
- Zero Coupon Bonds (No Interest Payments) / Bought at a Discounted Price
- Same or Next Day Settle

Treasury Bills (T-Bills) – 11/14/22

United States			1) Actions		3) Settings		Fixed Income Trading		
12:06	Outright	Switch	Bfly						
4) Actives	5) Bills	6) Notes	7) TIPS	8) Strips	9) Sprds	10) Curves	11) FRN	12) Bfly	13) WI
35) 11/29/22		3.498 / 3.445		3.498	-0.015	64) 02/16/23	4.120 / 4.095	4.196	+0.068
36) 12/01/22	▲	3.328 / 3.295		3.346	+0.040	65) 02/21/23	4.118 / 4.057	4.160	+0.017
37) 12/06/22		3.495 / 3.448		3.502	-0.010	66) 02/23/23	4.057 / 4.008	4.109	+0.035
38) 12/08/22		3.350 / 3.257		3.310	+0.037	67) 02/28/23	4.137 / 4.085	4.192	+0.038
39) 12/13/22		3.613 / 3.563		3.622	+0.112	68) 03/02/23	4.175 / 4.078	4.185	+0.008
40) WI 1MTH		/				69) 03/07/23	4.235 / 4.218	4.333	+0.048
41) 1M ROLL		/				70) 03/09/23	4.238 / 4.135	4.248	+0.030
42) 12/15/22		3.365 / 3.273		3.327	+0.040	71) 03/14/23	4.273 / 4.258	4.378	+0.018
43) 12/20/22		3.705 / 3.665		3.729	+0.112	72) WI 4MTH	/		
44) 12/22/22		3.695 / 3.610		3.674	+0.032	73) 4M ROLL	/		
45) 12/27/22		3.745 / 3.703		3.770	+0.010	74) 03/16/23	4.262 / 4.173	4.291	+0.035
46) 12/29/22		3.835 / 3.770		3.840	+0.055	75) 03/23/23	4.273 / 4.177	4.299	-0.015
47) 01/03/23		3.823 / 3.805		3.878	+0.058	76) 03/30/23	4.220 / 4.125	4.248	+0.013
48) 01/05/23		3.730 / 3.648		3.717	+0.015	77) 04/06/23	4.262 / 4.190	4.320	+0.035
49) 01/10/23		3.852 / 3.842		3.919	+0.125	78) 04/13/23	4.323 / 4.278	▲ 4.415	+0.020
50) WI 2MTH		/				79) 04/20/23	4.403 / 4.318	4.461	+0.025
51) 2M ROLL		/				80) 04/27/23	4.395 / 4.363	4.512	+0.045
52) 01/12/23	▲	3.760 / 3.668		3.741	+0.015	81) 05/04/23	▲ 4.405 / 4.373	4.527	+0.033
53) CMB 1/17		3.838 / 3.813		3.891	+0.067	82) 05/11/23	4.427 / 4.390	4.549	+0.020
54) 01/19/23		3.805 / 3.753		3.831	-0.017	83) WI 6MTH	4.460 / 4.430	4.594	+0.035
55) CMB 1/24		3.925 / 3.847		3.930	+0.015	84) 6M ROLL	/		
56) 01/26/23		3.927 / 3.850		3.934	+0.010	85) 05/18/23	4.415 / 4.325	4.483	+0.042
57) CMB 1/31		3.920 / 3.863		3.949	+0.018	86) 06/15/23	4.298 / 4.155	4.305	-0.007
58) 02/02/23		4.012 / 3.990		4.081	+0.042	87) 07/13/23	4.330 / 4.220	4.379	+0.003
59) CMB 2/07		4.083 / 4.023		4.117	+0.040	88) 08/10/23	4.330 / 4.218	▲ 4.384	+0.013
60) 02/09/23		4.095 / 4.088		4.185	+0.028	89) 09/07/23	4.345 / 4.213	▲ 4.387	-0.010
61) WI 3MTH		4.150 / 4.120		4.221	--	90) 10/05/23	4.403 / 4.305	4.497	+0.043
62) 3M ROLL		/				91) 11/02/23	▲ 4.430 / 4.395	4.605	+0.053

Source: Bloomberg

Treasury Bills (T-Bills) – Use Discount Rate

B 05/11/23 Govt		1) Send (VCON)		97) Settings		Ticket	
11/14/2022 12:14:39 Trade Date		11/14/22		12:14:39			
Trade Information							
Trader		JOE PELLEGRINO					
At		FIFTH THIRD SECURITIES, INC				CUSIP 912796ZE2	
						NYSE SYMB N.A.	
9) BUY		1000 M		of B 05/11/23		Issuer TREASURY BILL	
						Dated 11/10/22	
Discount		4.390000		or Yield		4.549162	
Price		97.841583		Round			
Settlement		11/15/22					
Notes							
Trade Numbers							
View Amounts in		USD					
Total Cost		USD		978,415.83			

T-Bill Discount Rate Calculation

T-Bills

- Maturities less than 1yr
- Trade using a discount rate – Pay Interest at Maturity
- Usually mature on Thursdays
- Same or Next Day Settle

Discount Rate Calculation/Formula:

T-Bill Day Count = ACT/360

Settlement Date = 11/15/22 Maturity Date = 5/11/23

11/15/22 -> 5/11/23 = 177 Actual Days to Maturity

Price = 100 (1 - (dr / 360))

d = Discount Rate = 4.39%

r = Days to Maturity = 177 Days

$P = 100 * (1 - (0.0439 * 177 / 360))$

$P = 100 * (1 - (0.02158417))$

$P = 100 * 0.97841583$

P = Price = \$97.841583 (Rounded to 6 Decimals)

\$1,000,000 Investment Costs \$978,415.83 on 11/15/22

Receive \$1,000,000.00 on 5/11/23 = \$21,584.17 Return

B 05/11/23 Govt	1) Send (VCON)	97) Settings	Ticket
11/14/2022 12:14:39	Trade Date	11/14/22 12:14:39	
Trade Information			
Trader	JOE PELLEGRINO		
At	FIFTH THIRD SECURITIES, INC		
	CUSIP	912796ZE2	
	NYSE SYMB	N.A.	
9) BUY	1000 M	of B 05/11/23	Issuer TREASURY BILL
			Dated 11/10/22
Discount	4.390000	or Yield	4.549162
Price	97.841583	Round	
Settlement	11/15/22		
Notes			
Trade Numbers			
View Amounts in USD			
Total Cost	USD	978,415.83	

T-Bill Yield Calculation

$$\text{Yield} = \frac{100 - \text{price}}{\text{price}} \times 100$$

T-Bill Yield Calculation/Formula:

$$100 - 97.841583 = 2.158417$$

$$2.158417 / 97.841583 * 100 = 2.2060323$$

$$\text{Annualized return} = \text{Yield} \times \frac{365}{\text{Days to maturity}}$$

T-Bill Yield Calculation/Formula:

$$2.2060323 * 365 / 177 = 4.549162\%$$

B 05/11/23 Govt	1) Send (VCON)	97) Settings	Ticket
11/14/2022 12:14:39	Trade Date	11/14/22	12:14:39
Trade Information			
Trader	JOE PELLEGRINO		
At	FIFTH THIRD SECURITIES, INC		
	CUSIP	912796ZE2	
	NYSE SYMB	N.A.	
9) BUY	1000 M	of B 05/11/23	
	Discount	4.390000	or Yield 4.549162
	Price	97.841583	Round
	Settlement	11/15/22	
Notes			
Trade Numbers			
View Amounts in USD			
Total Cost	USD	978,415.83	

Treasury Notes (0-1yr) – 11/14/22

United States			1) Actions			3) Settings			Fixed Income Trading																				
13:11			Outright			Switch			Bfly																				
4) Actives			5) Bills			6) Notes			7) TIPS			8) Strips			9) Sprds			10) Curves			11) FRN			12) Bfly			13) WI		
21) T/0-1			22) T/1-2			23) T/2-4			24) T/4-7			25) T/7-10			26) T/10-30														
31)	7	⁵ / ₈ N22	99-21 ³ / ₄	/	100-11+	-119.658	+	00+	51)	0	¹ / ₈ 323	98-12 ¹ / ₈	/	98-14 ⁵ / ₈	4.321	-	00 ³ / ₈												
32)	1	⁵ / ₈ N22	99-30 ⁵ / ₈	/	100-01 ¹ / ₈	-11.218	--		52)	0	¹ / ₄ 423	98-08 ⁵ / ₈	/	98-11 ¹ / ₄	4.294	+	00 ¹ / ₄												
33)	2	N22	99-28 ³ / ₈	/	99-31 ¹ / ₄	2.549	--		53)	1	⁵ / ₈ 423	98-23	/	98-25 ³ / ₈	4.306	-	00 ¹ / ₄												
34)	0	¹ / ₈ N22	99-26 ¹ / ₄	/	99-28 ⁵ / ₈	2.700	+	00 ¹ / ₄	54)	2	³ / ₄ 423	99-07 ³ / ₈	/	99-09 ⁵ / ₈	4.300	-	00 ¹ / ₄												
35)	1	⁵ / ₈ D22	99-26 ¹ / ₈	/	99-29 ¹ / ₈	2.705	-	00 ¹ / ₈	55)	0	¹ / ₈ 423	98-00 ³ / ₈	/	98-03	4.365	+	00 ¹ / ₈												
36)	2	¹ / ₈ D22	99-22 ¹ / ₄	/	99-25 ³ / ₄	3.665	+	00 ⁵ / ₈	56)	1	³ / ₄ 523	98-21	/	98-23	4.368	--													
37)	0	¹ / ₈ D22	99-15	/	99-17+	3.765	+	00+	57)	0	¹ / ₈ 523	97-26 ³ / ₄	/	97-29+	4.372	+	00 ¹ / ₄												
38)	1	¹ / ₂ 123	99-17 ⁵ / ₈	/	99-21 ³ / ₈	3.497	+	00 ⁵ / ₈	58)	1	⁵ / ₈ 523	98-14 ³ / ₄	/	98-17	4.401	-	00 ¹ / ₄												
39)	1	³ / ₄ 123	99-14 ³ / ₈	/	99-17 ¹ / ₄	3.951	-	00 ¹ / ₈	59)	2	³ / ₄ 523	99-02 ¹ / ₈	/	99-04 ⁵ / ₈	4.365	-	00 ¹ / ₄												
40)	2	³ / ₈ 123	99-18 ⁵ / ₈	/	99-21 ¹ / ₄	3.966	-	00 ⁵ / ₈	60)	0	¹ / ₈ 523	97-19+	/	97-22 ³ / ₈	4.477	-	00 ³ / ₈												
41)	0	¹ / ₈ 123	99-04	/	99-06 ¹ / ₈	4.020	+	00 ¹ / ₈	61)	0	¹ / ₄ 623	97-16+	/	97-19 ¹ / ₄	4.471	-	00 ¹ / ₈												
42)	7	¹ / ₈ 223	100-16 ¹ / ₈	/	101-01+	2.857	+	02 ³ / ₈	62)	1	³ / ₈ 623	98-01+	/	98-04	4.448	-	00 ¹ / ₈												
43)	2	223	99-13 ³ / ₈	/	99-15 ³ / ₄	4.032	-	00 ¹ / ₈	63)	2	⁵ / ₈ 623	98-25 ³ / ₄	/	98-28 ⁵ / ₈	4.433	-	01 ¹ / ₈												
44)	1	³ / ₈ 223	99-08+	/	99-11	4.013	--		64)	0	¹ / ₈ 623	97-07	/	97-09	4.587	-	00+												
45)	2	⁵ / ₈ 223	99-16 ¹ / ₄	/	99-19	4.020	--		65)	0	¹ / ₈ 723	97-00 ⁷ / ₈	/	97-03 ¹ / ₈	4.601	-	00 ¹ / ₄												
46)	0	¹ / ₈ 223	98-24 ³ / ₈	/	98-27	4.158	+	00 ¹ / ₈	66)	1	¹ / ₄ 723	97-18 ⁷ / ₈	/	97-21 ³ / ₈	4.628	-	01												
47)	1	¹ / ₂ 223	99-04 ⁷ / ₈	/	99-07 ⁵ / ₈	4.145	-	00 ¹ / ₈	67)	2	³ / ₄ 723	98-24 ⁷ / ₈	/	98-27 ⁷ / ₈	4.379	-	00 ³ / ₄												
48)	0	¹ / ₂ 323	98-23	/	98-25+	4.176	+	00 ¹ / ₄	68)	0	¹ / ₈ 723	96-26 ¹ / ₈	/	96-28 ¹ / ₄	4.643	-	00+												
49)	1	¹ / ₂ 323	98-28 ³ / ₈	/	98-30 ⁵ / ₈	4.328	--		69)	6	¹ / ₄ 823	100-31 ⁷ / ₈	/	101-15+	4.208	+	01 ¹ / ₄												
50)	2	¹ / ₂ 323	99-09+	/	99-12 ³ / ₈	4.154	+	00 ⁵ / ₈	70)	2	¹ / ₂ 823	98-12+	/	98-15 ¹ / ₄	4.585	-	00+												
									71)	0	¹ / ₈ 823	96-20+	/	96-22+	4.649	-	00 ⁵ / ₈												
									72)	1	³ / ₈ 823	97-13 ¹ / ₈	/	97-16+	4.611	-	00 ¹ / ₈												
									73)	2	³ / ₄ 823	98-16+	/	98-19+	4.557	-	01												
									74)	0	¹ / ₈ 823	96-14 ⁷ / ₈	/	96-17	4.647	-	00 ⁷ / ₈												

Treasury Notes (1-2yr) – 11/14/22

United States		1) Actions		3) Settings		Fixed Income Trading			
13:18		Outright	Switch	Bfly					
4) Actives	5) Bills	6) Notes	7) TIPS	8) Strips	9) Sprds	10) Curves	11) FRN	12) Bfly	13) WI
21) T/0-1	22) T/1-2	23) T/2-4	24) T/4-7	25) T/7-10	26) T/10-30				
31) 0 1/8 923	96-09 3/4 / 96-12 3/4	4.589	- 01 1/8	50) 1 1/2 224	96-02 3/4 / 96-05 5/8	4.585	- 02 1/4		
32) 1 3/8 923	97-07 3/8 / 97-09 3/8	4.569	- 01 1/4	57) 0 1/4 324	94-10 1/4 / 94-13	4.630	- 02 1/4		
33) 2 7/8 923	98-17 5/8 / 98-20	4.494	- 01+	58) 2 1/8 324	96-21 3/4 / 96-24 3/8	AXX	4.583	- 02 3/8	
34) 0 1/4 923	96-07 1/8 / 96-09+	4.623	- 00 5/8	59) 2 1/4 324	96-26 5/8 / 96-29	AXX	4.598	- 02 7/8	
35) 0 1/8 023	95-29 7/8 / 96-00+	4.623	- 00 5/8	60) 0 3/8 424	94-06+ / 94-09		4.596	- 02+	
36) 1 5/8 023	97-04 3/4 / 97-07 1/4	4.615	- 01 1/8	61) 2 424	96-09 1/8 / 96-11 3/4		4.603	- 02 7/8	
37) 2 7/8 023	98-10+ / 98-12 7/8	4.596	- 01 3/4	62) 2 1/4 424	96-21 1/8 / 96-23 7/8		4.581	- 02 5/8	
38) 0 3/8 023	95-31 3/4 / 96-01 7/8	4.626	- 00 3/4	63) 2 1/2 424	AXX	97-00 3/8 / 97-02 5/8	4.590	- 02 7/8	
39) 2 3/4 N23	98-05 1/4 / 98-07 3/4	4.568	- 00 7/8	64) 2 1/2 524		96-29 1/4 / 97-00 1/8	4.590	- 03 3/8	
40) 0 1/4 N23	95-23 / 95-25 1/4	4.607	- 00 7/8	65) 0 1/4 524		93-22 3/8 / 93-24 5/8	4.596	- 03 1/8	
41) 2 1/8 N23	97-13 7/8 / 97-15 7/8	4.615	- 01 1/8	66) 2 524	AXX	96-03 5/8 / 96-06 3/8	4.582	- 03	
42) 2 7/8 N23	98-06 1/8 / 98-08 3/8	4.603	- 02	67) 2 1/2 524		96-27 5/8 / 96-29+	4.591	- 03 3/8	
43) 0 1/2 N23	95-25 1/4 / 95-27 3/8	4.624	- 01 1/4	68) 0 1/4 624		93-12+ / 93-15 1/8	4.574	- 03	
44) 0 1/8 D23	95-09 5/8 / 95-12 7/8	4.527	- 01 3/4	69) 2 624		95-31 3/8 / 96-01 7/8	AXX	4.542	- 03 3/8
45) 2 1/4 D23	97-12 / 97-16 1/8	AXX	4.549	- 01	70) 1 3/4 624	95-18 5/8 / 95-21		4.552	- 03+
46) 2 5/8 D23	97-25 3/8 / 97-27 5/8	4.593	- 03 3/8	71) 3 624		97-16 7/8 / 97-18 3/8	AXX	4.564	- 03+
47) 0 3/4 D23	95-23 5/8 / 95-26 5/8	4.593	- 02 1/8	72) 0 3/8 724		93-10 1/8 / 93-12 3/8		4.542	- 03 3/8
48) 0 1/8 124	94-27 7/8 / 94-31+	4.593	- 01+	73) 3 724		97-15 1/8 / 97-15 7/8		4.536	- 03 7/8
49) 2 1/4 124	97-06 3/8 / 97-09 3/4	4.564	- 02 1/8	74) 2 1/8 724		95-30 3/4 / 96-01 1/8	AXX	4.561	- 04 1/4
50) 2 1/2 124	97-15 1/4 / 97-18 1/4	4.585	- 02 3/8	75) 1 3/4 724		95-11 5/8 / 95-13 7/8		4.556	- 04
51) 0 7/8 124	95-18 1/4 / 95-21 3/8	4.598	- 02	76) 3 1/4 824	AXX	97-27 / 97-27 5/8		4.503	- 04
52) 2 3/4 224	97-21 3/4 / 97-25	AXX	4.593	- 02	77) 2 3/8 824	96-08+ / 96-11 1/8		4.568	- 04 3/4
53) 0 1/8 224	94-17 5/8 / 94-20 7/8	4.575	- 01 7/8	78) 0 3/8 824		92-31 1/4 / 93-01+	AXX	4.553	- 04
54) 2 1/8 224	96-27 / 96-29 7/8	4.598	- 02 3/8	79) 1 7/8 824		95-11 7/8 / 95-13 7/8	AXX	4.559	- 05
				80) 1 1/4 824		94-11 3/8 / 94-13 3/8	AXX	4.531	- 04 1/4
				81) 4 1/4 924	AXX	99-19 1/4 / 99-19 3/4		4.463	- 04 3/8
				82) 4 3/8 024		99-29 5/8 / 99-29 7/8		4.410	- 04 5/8

Source: Bloomberg

Treasury Notes (2-4yr) – 11/14/22

United States			1) Actions		3) Settings		Fixed Income Trading	
13:20			Outright		Switch		Bfly	
4) Actives			5) Bills		6) Notes		7) TIPS	
21) T/0-1			22) T/1-2		23) T/2-4		24) T/4-7	
25) T/7-10			26) T/10-30		8) Strips		9) Sprds	
10) Curves			11) FRN		12) Bfly		13) WI	
43) 2 1/4 D24	AXE	95-19+ / 95-22+	4.389	- 05 1/4	78) 3 025	AXE	96-17+ / 96-20 1/4	4.222 - 05 1/4
44) 1 3/4 D24	AXE	94-22 1/4 / 94-24+	4.355	- 04+	79) 0 1/4 025		89-01 / 89-03 1/4	4.206 - 04+
45) 1 1/8 125		93-08 / 93-10 3/4	4.383	- 04 3/4	80) 2 1/4 N25		94-12+ / 94-15	4.233 - 05 1/4
46) 2 1/2 125	AXE	96-00+ / 96-03	4.373	- 04 3/4	81) 4 1/2 N25		100-22 3/4 / 100-23	4.242 - 05
47) 1 3/8 125	AXE	93-23 3/4 / 93-26 3/4	4.330	- 04 1/4	82) 2 7/8 N25	AXE	96-04 3/4 / 96-07 1/4	4.210 - 05 1/4
48) 7 5/8 225		106-19 1/4 / 107-04 3/4	4.255	- 03+	83) 0 3/8 N25		89-02 / 89-04	4.223 - 04 3/4
49) 2 225		94-30 / 95-01	4.341	- 04 1/4	84) 2 5/8 D25		95-11 1/4 / 95-14	4.197 - 05 1/4
50) 1 1/2 225		93-25 3/4 / 93-28 1/4	4.384	- 04 3/4	85) 0 3/8 D25		88-28 1/4 / 88-30+	4.183 - 05
51) 2 3/4 225		96-16 1/4 / 96-19	4.327	- 04 3/4	86) 2 5/8 126	AXE	95-06 3/4 / 95-09 1/4	4.209 - 05+
52) 1 1/8 225		92-31 3/4 / 93-02+	4.332	- 04+	87) 0 3/8 126	AXE	88-17 / 88-19 1/4	4.209 - 05
53) 1 3/4 325		94-08 / 94-10 1/4	4.337	- 05 3/4	88) 6 226		105-02 3/4 / 105-23+	4.095 - 02+
54) 2 5/8 325		96-07+ / 96-10	4.274	- 05+	89) 1 5/8 226		92-04 3/4 / 92-07+	4.206 - 05 3/4
55) 0 1/2 325		91-15 3/4 / 91-18 3/4	4.265	- 04 3/4	90) 2 1/2 226		94-23 3/4 / 94-26	4.204 - 05 3/4
56) 2 5/8 425		96-01 3/4 / 96-04	4.331	- 05 1/4	91) 0 1/2 226		88-21 / 88-23 1/4	4.205 - 05 3/4
57) 2 7/8 425		96-19 / 96-21 3/4	4.312	- 05+	92) 2 1/4 326		93-31 3/4 / 94-02	4.154 - 06
58) 0 3/8 425		90-29+ / 91-00+	4.263	- 04 3/4	93) 0 3/4 326		89-07 3/4 / 89-09 3/4	4.182 - 05+
59) 2 1/8 525		94-25 / 94-27 3/4	4.313	- 05 3/4	94) 2 3/8 426		94-08 / 94-10 1/4	4.155 - 05 3/4
60) 2 3/4 525		96-08 3/4 / 96-10 3/4	4.312	- 04 1/4	95) 0 3/4 426		89-00 1/4 / 89-02	4.179 - 05 3/4
61) 2 7/8 525		96-17+ / 96-19 3/4	4.294	- 05	96) 1 5/8 526		91-24 / 91-26	4.163 - 06 1/4
62) 0 1/4 525		90-08+ / 90-11	4.302	- 05 1/4	97) 2 1/8 526		93-09 1/4 / 93-11+	4.161 - 06 1/4
63) 2 7/8 625		96-18 1/4 / 96-19 1/4	4.278	- 04+	98) 0 3/4 526		88-24 3/4 / 88-26+	4.177 - 06
64) 2 3/4 625		96-08 1/4 / 96-10+	4.242	- 05	99) 1 7/8 626		92-13 3/4 / 92-16	4.123 - 06 1/4
65) 0 1/4 625		90-06 3/4 / 90-09 1/4	4.195	- 04 1/4	100) 0 7/8 626		88-31 3/4 / 89-01+	4.161 - 06 1/4
66) 3 725		96-24+ / 96-25+	4.283	- 04+	101) 1 7/8 726		92-07 1/4 / 92-09 1/4	4.138 - 06+
67) 2 7/8 725	AXE	96-13 3/4 / 96-16 1/4	4.252	- 05 3/4	102) 0 5/8 726	AXE	87-29 1/4 / 87-31	4.158 - 06+
68) 0 1/4 725		89-28 1/4 / 89-30 1/4	4.216	- 04 1/4	103) 6 3/4 826		108-20 1/4 / 109-10 1/4	4.044 - 05
69) 6 7/8 825		106-04+ / 107-01+	4.134	- 01 1/4	104) 1 1/2 826		90-26 / 90-28+	4.147 - 06 1/4

Source: Bloomberg

Treasury Notes (4-7yr) – 11/14/22

United States			1) Actions		3) Settings		Fixed Income Trading		
13:23			Outright		Switch		Bfly		
4) Actives			5) Bills		6) Notes		7) TIPS		
8) Strips			9) Sprds		10) Curves		11) FRN		
12) Bfly			13) WI						
21) T/0-1			22) T/1-2		23) T/2-4		24) T/4-7		
25) T/7-10			26) T/10-30						
38) 1 1/4 N26	89-12 3/4 / 89-14 1/4	AXI	4.111	- 07	75) 1 1/4 528	86-09 / 86-11 1/4	4.022	- 09	
39) 1 3/4 D26	91-06 3/4 / 91-08+		4.071	- 07	76) 1 1/4 628	86-04 / 86-06	4.018	- 09 1/4	
40) 1 1/4 D26	89-08 / 89-09 1/4		4.098	- 07 1/4	77) 1 7/8	84-22+ / 84-24+	AXI	4.012 - 09 3/4	
41) 1 1/2 127	90-00+ / 90-02		4.094	- 07+	78) 5 1/2 828	AXI	107-03 3/4 / 107-15+	4.027 - 09 3/4	
42) 6 5/8 227	AXI	109-10 3/4 / 109-28+	4.065	- 06 1/4	79) 2 7/8 828	AXI	94-01+ / 94-04	4.029 - 09 3/4	
43) 2 1/4 227	92-26 3/4 / 92-29 1/4		4.082	- 07+	80) 1 1/8 828	AXI	85-04 / 85-05 3/4	4.019 - 09 1/4	
44) 1 1/8 227	88-17 / 88-19		4.048	- 06 3/4	81) 1 1/4 928	AXI	85-19 / 85-21	4.015 - 09 3/4	
45) 1 7/8 227	AXI	91-13 / 91-14	AXI	4.070 - 07+	82) 1 3/8 028	AXI	86-01 3/4 / 86-03 3/4	4.018 - 09 3/4	
46) 0 5/8 327	86-10 1/4 / 86-12 1/4		4.054	- 07	83) 5 1/4 N28	105-31 1/4 / 106-11	AXI	4.048 - 10+	
47) 2 1/2 327	93-23+ / 93-25		4.066	- 07+	84) 3 1/8 N28	AXI	95-05 1/4 / 95-07+	4.027 - 10 3/4	
48) 0 1/2 427	85-21 / 85-22 3/4		4.034	- 07	85) 1 1/2 N28	AXI	86-18 / 86-20	4.015 - 10	
49) 2 3/4 427	94-22 / 94-23 1/4	AXI	4.055	- 07+	86) 1 3/8 D28	AXI	85-29 3/4 / 85-31+	3.975 - 10 3/4	
50) 2 3/8 527	93-02 / 93-04+	AXI	4.058	- 08	87) 1 3/4 129	87-19 1/4 / 87-21 1/4		4.014 - 11	
51) 0 1/2 527	85-12+ / 85-14 1/4		4.040	- 07 3/4	88) 5 1/4 229	106-07 3/4 / 106-21	AXI	4.033 - 10+	
52) 2 5/8 527	94-06+ / 94-07+	AXI	4.027	- 07 3/4	89) 2 5/8 229	AXI	92-09 3/4 / 92-12	4.016 - 11	
53) 0 1/2 627	85-05 3/4 / 85-08	AXI	4.027	- 07 1/4	90) 1 7/8 229	AXI	88-06 / 88-08 1/4	4.005 - 11	
54) 3 1/4 627	96-22 1/4 / 96-23		4.034	- 08	91) 2 3/8 329	90-26 3/4 / 90-28 1/4		4.010 - 11 3/4	
55) 0 3/8 727	84-17+ / 84-19 1/4		3.994	- 07+	92) 2 7/8 429	93-18 1/4 / 93-19 3/4	AXI	4.006 - 11 3/4	
56) 2 3/4 727	94-16 3/4 / 94-17+	AXI	4.032	- 08+	93) 2 3/8 529	90-22+ / 90-24 3/4		4.001 - 11 3/4	
57) 6 3/8 827	109-18 1/4 / 110-01		4.031	- 09	94) 2 3/4 529	92-26+ / 92-28	AXI	3.999 - 11+	
58) 2 1/4 827	AXI	92-09 / 92-11 1/4	4.035	- 08 3/4	95) 3 1/4 629	95-21 / 95-22		3.997 - 13	
59) 0 1/2 827	84-23 1/4 / 84-25+		4.021	- 07 3/4	96) 2 5/8 729	92-00+ / 92-01+		3.987 - 12	
60) 3 1/8 827	96-07 / 96-07 3/4		3.994	- 08+	97) 3 1/8 829	94-30 / 94-31		3.977 - 12+	
61) 0 3/8 927	84-00 1/4 / 84-02		4.007	- 07 3/4	98) 6 1/8 829	112-04 / 112-16		3.993 - 13	
62) 4 1/8 927	AXI	100-16+ / 100-17	AXI	4.003 - 08 3/4	99) 1 5/8 829	AXI	86-14 / 86-16	3.920 - 12	
63) 0 1/2 027	84-08 / 84-10		4.021	- 08	100) 3 7/8 929	AXI	99-14+ / 99-15+	AXI	3.961 - 13
64) 4 1/8 027	100-17+ / 100-17 3/4		4.000	- 09	101) 4 029	100-10 / 100-10+		3.945 - 13+	

Source: Bloomberg

Treasury Notes (7-10yr) – 11/14/22

United States		1) Actions		3) Settings		Fixed Income Trading													
13:25		Outright		Switch		Bfly													
4) Actives		5) Bills		6) Notes		7) TIPS		8) Strips		9) Sprds		10) Curves		11) FRN		12) Bfly		13) WI	
21) T/0-1		22) T/1-2		23) T/2-4		24) T/4-7		25) T/7-10		26) T/10-30									
31)	1 $\frac{3}{4}$	N29	87-04+	/	87-06+	3.853	-	11+	43)	2 $\frac{7}{8}$	532	92-00	/	92-01	▲	3.886	-	14+	
32)	1 $\frac{1}{2}$	230	85-00+	/	85-02+	3.881	-	12+	44)	2 $\frac{3}{4}$	832	▲	90-26+	/	90-27+	▲	3.885	-	15
33)	6 $\frac{1}{4}$	530	114-12	/	115-00	▲	3.922	-	13	45)	4 $\frac{1}{8}$	N32	102-02	/	102-02+	3.872	-	16	
34)	0 $\frac{5}{8}$	530	78-31+	/	79-01+	3.871	-	11											
35)	0 $\frac{5}{8}$	830	78-16	/	78-18	3.851	-	12											
36)	0 $\frac{7}{8}$	N30	79-26+	/	79-29	3.813	-	12+											
37)	5 $\frac{3}{8}$	231	109-26	/	110-13	▲	3.888	-	11										
38)	1 $\frac{1}{8}$	231	81-05	/	81-07+	3.795	-	12+											
39)	1 $\frac{5}{8}$	531	83-30	/	84-00	3.850	-	13											
40)	1 $\frac{1}{4}$	831	80-24	/	80-26+	3.852	-	13											
41)	1 $\frac{3}{8}$	N31	81-03+	/	81-05	▲	3.875	-	13+										
42)	1 $\frac{7}{8}$	232	84-16	/	84-17	▲	3.881	-	14										

Source: Bloomberg

Treasury Bonds (10-30yr) – 11/14/22

United States			1) Actions		3) Settings		Fixed Income Trading												
13:26			Outright		Switch		Bfly												
4) Actives		5) Bills		6) Notes		7) TIPS		8) Strips		9) Sprds		10) Curves		11) FRN		12) Bfly		13) WI	
21) T/0-1		22) T/1-2		23) T/2-4		24) T/4-7		25) T/7-10		26) T/10-30									
38) 4 1/2	839	104-24+ / 105-05		AXE	4.072	-	13+	77) 2 1/2	546	AXE	72-19+ / 72-26+	4.359	-	21+					
39) 4 3/8	N39	102-31 / 103-11+			4.099	-	12	78) 2 1/4	846		68-27 / 69-01+	4.354	-	21+					
40) 4 5/8	240	106-03+ / 106-16			4.095	-	13+	79) 2 7/8	N46		78-06+ / 78-13	4.331	-	22+					
41) 4 3/8	540	102-21+ / 103-00+			4.131	-	14	80) 3	247		79-31 / 80-04+	4.331	-	22					
42) 1 1/8	540	61-05 / 61-14			4.278	-	15	81) 3	547		80-00 / 80-05	4.321	-	21+					
43) 3 7/8	840	95-27+ / 96-06		AXE	4.182	-	15+	82) 2 3/4	847	AXE	76-08+ / 76-13	4.309	-	21+					
44) 1 1/8	840	AXE	60-20 / 60-28	AXE	4.298	-	17+	83) 2 3/4	N47	AXE	76-09 / 76-13	4.299	-	21+					
45) 4 1/4	N40	100-20 / 100-30			4.175	-	17	84) 3	248	AXE	80-04+ / 80-08	AXE	4.288	-	22+				
46) 1 3/8	N40	63-11+ / 63-19+			4.300	-	16+	85) 3 1/8	548		82-09 / 82-13	AXE	4.263	-	22+				
47) 1 7/8	241	AXE	69-06+ / 69-14+		4.309	-	18+	86) 3	848		80-16+ / 80-20+	4.243	-	22+					
48) 4 3/4	241	107-06 / 107-16		AXE	4.159	-	19+	87) 3 3/8	N48		86-19+ / 86-23+	AXE	4.220	-	25				
49) 2 1/4	541	73-17+ / 73-25+		AXE	4.322	-	18	88) 3	249		80-28+ / 81-00+	AXE	4.200	-	25+				
50) 4 3/8	541	102-03 / 102-12+			4.188	-	19	89) 2 7/8	549		78-31+ / 79-03	AXE	4.189	-	24				
51) 1 3/4	841	66-18+ / 66-25+			4.360	-	16+	90) 2 1/4	849		69-00 / 69-03+	AXE	4.179	-	23+				
52) 3 3/4	841	AXE	93-12+ / 93-21+		4.242	-	20+	91) 2 3/8	N49		70-31 / 71-02+	AXE	4.170	-	22+				
53) 3 1/8	N41	AXE	84-22+ / 84-31+		4.289	-	19	92) 2	250	AXE	64-23 / 64-27	4.171	-	21					
54) 2	N41	69-17 / 69-22+			4.362	-	18	93) 1 1/4	550	AXE	52-13 / 52-16+	4.167	-	19					
55) 3 1/8	242	84-22 / 84-29+			4.283	-	22	94) 1 3/8	850	AXE	54-07 / 54-10+	4.167	-	19+					
56) 2 3/8	242	74-14 / 74-18+			4.336	-	19	95) 1 5/8	N50	AXE	58-08+ / 58-12	4.154	-	19+					
57) 3	542	AXE	82-20+ / 82-28		4.307	-	22+	96) 1 7/8	251		62-11 / 62-14	4.143	-	20+					
58) 3 1/4	542	86-04 / 86-07			4.301	-	21	97) 2 3/8	551		70-13 / 70-16	4.150	-	23+					
59) 2 3/4	842	78-27 / 79-02			4.339	-	21	98) 2	851		64-03+ / 64-06+	AXE	4.141	-	19+				
60) 3 3/8	842	87-27+ / 87-29+			4.287	-	22	99) 1 7/8	N51		62-00+ / 62-03+	AXE	4.128	-	20				
61) WI 20YR		4.265 / 4.260					+0.055	100) 2 1/4	252	AXE	68-07 / 68-09+	AXE	4.126	-	20+				
62) 20Y Roll		/						101) 2 7/8	552		78-24 / 78-25+	AXE	4.124	-	23+				
63) 2 3/4	N42	78-18 / 78-24+			4.351	-	20+	102) 3	852	AXE	81-05 / 81-07	4.098	-	22+					
64) 3 1/8	243	AXE	83-16+ / 83-24+		4.337	-	20	103) 4	N52		98-28 / 98-29+	4.063	-	26					

Source: Bloomberg

Treasury Yield Curve – Current Rates – 11/18/22

4) Actives	5) Bills	6) Notes	7) TIPS	8) Stri
Bills				
31)	12/20/22	3.750 / 3.648		3.709
32)	01/17/23	3.950 / 3.895		3.974
33)	02/16/23	4.150 / 4.128		4.227
34)	03/21/23	4.340 / 4.323		4.446
35)	05/18/23	4.480 / 4.455		4.619
36)	11/02/23	4.533 / 4.485		4.700
Notes & Bonds				
37)	4 ¹ / ₄ 924	99-13 ⁷ / ₈ / 14 ³ / ₈		4.560
38)	4 ³ / ₈ 024 2YR	99-22 ³ / ₄ / 23		4.527
39)	WI 2YR	4.510 / 4.500		
40)	3 ¹ / ₂ 925	97-27 / 27 ³ / ₄		4.311
41)	4 ¹ / ₄ 025	99-26 ³ / ₄ / 27 ¹ / ₄		4.304
42)	4 ¹ / ₂ N25 3YR	100-18 / 18 ¹ / ₄		4.294
43)	4 ¹ / ₈ 927	100-15 / 15+		4.013
44)	4 ¹ / ₈ 027 5YR	100-16 ¹ / ₄ / 16+		4.008
45)	WI 5YR	3.980 / 3.965		
46)	4 029 7YR	100-13 / 14		3.927
47)	WI 7YR	3.920 / 3.915		
48)	2 ⁷ / ₈ 532	92-12+ / 13+		3.836
49)	2 ³ / ₄ 832	91-07 / 08		3.835
50)	4 ¹ / ₈ N32 10YR	102-14+ / 15		3.825
51)	3 ³ / ₈ 842	89-09 / 11		4.172
52)	4 N42 20YR	97-30+ / 00+		4.147

Source: Bloomberg

Treasury Yield Curve – Investment Strategy – Why Ladder?

Historical Spreads - Why Ladder?



US Treasury Yields - 5 Year Lookback



Source: Bloomberg

Sample Investment Comparison – Which One is Better

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%

Sample Investment Comparison – Which One is Better

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%
Price	\$97.00	\$100.00	\$103.00

Sample Investment Comparison – Which One is Better

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%
Price	\$97.00	\$100.00	\$103.00

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%
Price	\$97.00	\$100.00	\$103.00
Yield	2.00%	2.00%	2.00%

Sample Investment Comparison – Which One is Better

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%
Discount / Par/ Premium Price	\$97.00	\$100.00	\$103.00
Yield	2.00%	2.00%	2.00%
Dollars Spent (Cost)	\$970,000	\$1,000,000	\$1,030,000
Annual Interest Earned (Par Amount x Coupon)	\$10,000	\$20,000	\$30,000
Six Semi-Annual Interest Payments (3yrs)	\$5,000 x 6	\$10,000 x 6	\$15,000 x 6
Total Interet Earned Over 3 Years	\$30,000	\$60,000	\$90,000

You can't just look at the Coupon or the Interest Earned

Sample Investment Comparison – Which One is Better

Option	#1	#2	#3
Term	3yr	3yr	3yr
Issuer	T-Note	T-Note	T-Note
Par Amount	\$1,000,000	\$1,000,000	\$1,000,000
Coupon	1.00%	2.00%	3.00%
Discount / Par/ Premium Price	\$97.00	\$100.00	\$103.00
Yield	2.00%	2.00%	2.00%
Dollars Spent (Cost)	\$970,000	\$1,000,000	\$1,030,000
Annual Interest Earned (Par Amount x Coupon)	\$10,000	\$20,000	\$30,000
Six Semi-Annual Interest Payments (3yrs)	\$5,000 x 6	\$10,000 x 6	\$15,000 x 6
Total Interest Earned	\$30,000	\$60,000	\$90,000
Overall Net Interest Earned	\$60,000	\$60,000	\$60,000

You need to look at BOTH Interest Earned (derived from the Coupon) AND the Price Appreciation/Depreciation.

Decision Needs to Be Based On YIELD, Not Coupon or Price

Yield = Net Interest Earned +/- Price Appreciation/Depreciation

T-Note Calculation

80) 2 1/4 N25 94-12 / 94-14 3/4 4.236
 81) 4 1/2 N25 100-22 1/4 / 100-22+ 4.248

T 2 1/4 11/15/25 Govt 1) Send (VCON) 97) Settings Ticket

11/14/2022 15:14:24 Trade Date 11/14/22 15:14:24

Trade Information
 Trader JOE PELLEGRINO
 At FIFTH THIRD SECURITIES, INC CUSIP 912828M56
 NYSE SYMB N.A.
 Issuer US TREASURY N/...
 Dated 11/16/15

BUY 1000 M of T 2 1/4 11/15/25
 Price 94-14 5/8 Yield 4.250000
 94.45703125 (Decimal Equivalent) Round Price
 Settlement 11/22/22

Notes

Trade Numbers
 View Amounts in USD

Principal USD 944,570.31
 Accrued (7 days) 435.08
 Total USD 945,005.39

T 4 1/2 11/15/25 Govt 1) Send (VCON) 97) Settings Ticket

11/14/2022 15:01:50 Trade Date 11/14/22 15:01:50

Trade Information
 Trader JOE PELLEGRINO
 At FIFTH THIRD SECURITIES, INC CUSIP 91282CFW6
 NYSE SYMB N.A.
 Issuer US TREASURY N/...
 Dated 11/15/22

BUY 1000 M of T 4 1/2 11/15/25
 Price 100-22 1/8 Yield 4.250000
 100.69140625 (Decimal Equivalent) Round Price
 Settlement 11/22/22

Notes

Trade Numbers
 View Amounts in USD

Principal USD 1,006,914.06
 Accrued (7 days) 870.17
 Total USD 1,007,784.23

Price 94-13+ Settlement 11/15/22 Issue 11/16/2015 Maturity 11/15/2025
 Yield 4.250000 to Worst 11/15/25 @ 100.000000 Face Amt 1000 M

Payment Date	Interest	Principal	Total
05/15/2023	11,250.00	0.00	11,250.00
11/15/2023	11,250.00	0.00	11,250.00
05/15/2024	11,250.00	0.00	11,250.00
11/15/2024	11,250.00	0.00	11,250.00
05/15/2025	11,250.00	0.00	11,250.00
11/15/2025	11,250.00	1,000,000.00	1,011,250.00

2) Cash Flows 3) Present Values 4) Distressed Analysis

Price 100-22 1/4 Settlement 11/15/22 Issue 11/15/2022 Maturity 11/15/2025
 Yield 4.250000 to Worst 11/15/25 @ 100.000000 Face Amt 1000 M

Payment Date	Interest	Principal	Total
05/15/2023	22,500.00	0.00	22,500.00
11/15/2023	22,500.00	0.00	22,500.00
05/15/2024	22,500.00	0.00	22,500.00
11/15/2024	22,500.00	0.00	22,500.00
05/15/2025	22,500.00	0.00	22,500.00
11/15/2025	22,500.00	1,000,000.00	1,022,500.00

T-Note - Principal & Accrued Interest Calculation

T 2 1/4 11/15/25 Govt		Send (VCON)	97 Settings	Ticket
11/14/2022 15:14:24 Trade Date 11/14/22 15:14:24				
Trade Information				
Trader	JOE PELLEGRINO			
At	FIFTH THIRD SECURITIES, INC			
		CUSIP	912828M56	
		NYSE SYMB	N.A.	
9 BUY	1000 M	of T 2 1/4 11/15/25		
		Issuer	US TREASURY N/...	
		Dated	11/16/15	
Price	94-14 5/8	Yield	4.250000	
	94.45703125	(Decimal Equivalent) <input checked="" type="checkbox"/> Round Price		
Settlement	11/22/22			
Notes				
Trade Numbers				
View Amounts in USD				
Principal	USD	944,570.31		
Accrued (7 days)		435.08		
Total	USD	945,005.39		

Price	94-13+	Settlement	11/15/22	Issue	11/16/2015	Maturity	11/15/2025
Yield	4.250000	to Worst	11/15/25	@ 100.000000	Face Amt	1000M	
Payment Date	Interest	Principal	Total				
05/15/2023	11,250.00	0.00	11,250.00				
11/15/2023	11,250.00	0.00	11,250.00				
05/15/2024	11,250.00	0.00	11,250.00				
11/15/2024	11,250.00	0.00	11,250.00				
05/15/2025	11,250.00	0.00	11,250.00				
11/15/2025	11,250.00	1,000,000.00	1,011,250.00				

Principal Amount

- Principal = Par Amount x Price / 100
- Principal = \$1,000,000 x \$94.45703125 / 100 = \$944,570.31

Accrued Interest for T-Notes = ACT/ACT

- Interest Payment Dates on 11/15 and 5/15
- Example # - 181 Actual Days in Payment Period 11/15/22 -> 5/15/23
- \$11,250 * 7 Days / 181 Days = \$435.08 Accrued Interest Paid
- Regardless of what day you bought bond – Receive Full Payment of \$11,250 on 5/15 & 11/15

What Did We Learn Today – US Treasuries

- **Considered Safest Investment in the World - Full Faith and Credit of US Government**
 - No Collateral Needed for US Treasuries
 - We Can Buy Whatever Amount We Want
 - Many Maturity Date/Options
 - Yields Constantly Changing/Fluctuating and Will Move With the Market
- **A Little More Complicated than CDs**
 - T-Bills are Bought Using a Discounted Rate (Under \$100) = Get Exact 1mm Amount back at Maturity
 - Treasury Bonds have Coupon Rates and Semi-Annual Interest Payments
 - Must Pay Discounts/Premiums at Times along with Accrued Interest
 - Market Value will Change
- **Don't Need be Afraid to Learn About New Investments – Broaden Your Horizons**

What Did We Learn Today

Evaluating Bonds

- **You Can't Just Look at Coupon**
 - Higher Coupon Does Not Always = Higher Yield
 - Lower Coupon Does Not Always = Lower Yield
- **Dollar Price Paid also affects Yield**
 - Discounted Price (Under \$100) = Yield Higher than Coupon Rate
 - Par Price (\$100) = Coupon Rate and Yield the Same
 - Premium Price (Over \$100) = Yield less than Coupon Rate
- **Yield = Coupon Payments +/- Price Appreciation/Depreciation Over Time**
- **Yield is the Way to Evaluate Different Bonds**

Fixed Income Product Offerings – 5 Different Asset Classes

- ✓ CDs
- ✓ Treasury Bonds
- ✓ Government Agency Bonds
- ✓ Municipal Bonds
- ✓ Commercial Paper / Corporate Bonds

Rely on Your Professional Partners More in This Area

- ✓ **Days of just using CDs and Money Market Funds are in the Past**
- ✓ **Days of just using Local Banks in the County should be in the Past**
- ✓ **Educate Yourselves More – Stay in Tune with Market**
- ✓ **Utilize/Lean on knowledge from Experts**
- ✓ **Add Diversification / Increase Yield Without Adding Much Incremental Risk**
- ✓ **Update/Amend Policies – Stay Current**
- ✓ **Ask Questions / Understand Better / Ignorance is Not Bliss**
- ✓ **Investment Opportunities Exist to Help Increase Your Bottom Line**

Why Do We Do All of This – To Increase Your Bottom Line



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