

```
In [ ]: from financepy.utils import *
        from financepy.products.bonds import *
        from financepy.market.curves import *
```

```
#####
# FINANCEPY BETA Version 0.260 - This build: 22 Nov 2022 at 13:42 #
# This software is distributed FREE & WITHOUT ANY WARRANTY #
# Report bugs as issues at https://github.com/domokane/FinancePy #
#####
```

Check US Treasury Coupon Dates and Accrued Interest

25) Bond Description	26) Issuer Description	95) Buy	96) Sell
Pages	Issuer Information	Identifiers	
11) Bond Info	Name US TREASURY N/B	ID Number 91282CFX4	
12) Addtl Info	Industry Treasury (BCLASS)	CUSIP 91282CFX4	
13) Covenants	Security Information		
14) Guarantors	Issue Date 11/30/2022	ISIN US91282CFX48	
15) Bond Ratings	Interest Accrues 11/30/2022	SEDOL 1 BP4XYZ2	
16) Identifiers	1st Coupon Date 05/31/2023	FIGI BBG01BLPJLW3	
17) Exchanges	Maturity Date 11/30/2024	Issuance & Trading	
18) Inv Parties	Floater Formula N.A.	Issue Price 99.990539	
19) Fees, Restrict	Workout Date 11/30/2024	Risk Factor 1.727	
20) Schedules	Coupon 4.500	Amount Issued 46562 (MM)	
21) Coupons	Cpn Frequency S/A	Amount Outstanding 46562 (MM)	
Quick Links	Security Type USN	Minimum Piece 100	
32) ALLQ Pricing	Type FIXED	Minimum Increment 100	
33) QRD Quote Recap	Mty/Refund Type NORMAL	SOMA Holdings 9.81	
34) CACS Corp Action	Series		
35) CN Sec News	Calc Type STREET CONVENTION		
36) HDS Holders	Day Count ACT/ACT		
	Market Sector US GOVT		
	Country/Region US	Currency USD	
60) Send Bond	TENDERS ACCEPTED: \$42000MM.		

```
In [ ]: accrual_type, frequencyType, settlementDays, exDiv, calendar = get_bond_market_conv
```

```
In [ ]: issueDt= Date(30,11,2022)
        settleDt = Date(6,2,2023)
        coupon = 4.5/100
        maturityDt= Date(30,11,2024)

        bond_dict={"issue_date": issueDt,
                  "maturity_date": maturityDt,
                  "coupon": coupon,
                  "freq_type": frequencyType,
                  "accrual_type": accrual_type,
                  "face_amount": 100.0,
                  "calendar_type": calendar}

        #bond = Bond(issueDt, maturityDt, coupon, frequencyType, accrual_type, 100, calendar)
        bond = Bond(**bond_dict)
```

bond

```
Out [ ]: OBJECT TYPE: Bond
ISSUE DATE: 30-NOV-2022
MATURITY DATE: 30-NOV-2024
COUPON (%): 4.5
FREQUENCY: FrequencyTypes.SEMI_ANNUAL
ACCRUAL TYPE: DayCountTypes.ACT_ACT_ICMA
FACE AMOUNT: 100.0
```

Bond Matures on a SATURDAY
T 4 1/2 11/30/24 Govt

100-04 1/8 / 100-04 3/4	4.422/4.411	BGN @ 01:59	No Notes	Buy	Sell
Yield & Spread	Graphs	Pricing	Description	Custom	Yields
T 4 1/2 11/30/24 (91282CFX4)					
Price	100-04+ (100.140625)		Risk		
Settle	02/06/23	Maturity 11/30/2024	Duration	1.748	
			Modified Duration	1.710	
			Risk	1.727	
Street Convention	4.415114		Convexity	0.038	
Treasury Convention	4.411863		DV 01 on 1MM	173	
True Yield	4.402029		YV 0.031	0.01809	
Equiv 1 /Yr Compound	4.463847		Invoice		
Japanese Yield (Simple)	4.416000		Face	1,000 M	
Mmkt (Act/360)	4.466516		Principal	1,001,406.25	
Current Yield	4.494		Accrued (68 Days)	8,406.59	
			Total (USD)	1,009,812.84	
After Tax (Inc 40.800% CG 23.800%)	2.614558				
Issue Price = 99.991. Bond Purchased with Premi...					

From above screen Accrued interest is shown as 8406.59. While below it is calculated as

```
In [ ]: ai=bond.calc_accrued_interest(settleDt)
print(round(ai,3)*10000)
print(ai * 10000)
```

```
8450.0
8453.03867403315
```

T 4 1/2 11/30/24 Govt

100-04 1/8 / 100-04 3/4	4.422/4.411	BGN @ 01:59	Buy	Sell
			BBID	91282CFX4
Cash Flows	Present Values	Distressed Analysis		
Price	100-04 3/4	Settlement 11/30/22	Issue 11/30/2022	Maturity 11/30/2024
Yield	4.421634 to Worst	11/30/24	@ 100.00000	Face Amt 1000 M
Payment Date	Interest	Principal	Total	
05/31/2023	22,500.00	0.00	22,500.00	
11/30/2023	22,500.00	0.00	22,500.00	
05/31/2024	22,500.00	0.00	22,500.00	
11/30/2024	22,500.00	1,000,000.00	1,022,500.00	

From above screen Payment dates in the first column doesn't match Financepy bond class result for US Treasury.

```
In [ ]: bond.print_coupon_dates(issueDt)
```

30-MAY-2023	2.25
30-NOV-2023	2.25
30-MAY-2024	2.25
30-NOV-2024	102.25

```
In [ ]: bond._calculate_payment_dates()  
print(bond._payment_dates)
```

```
[30-NOV-2022, 30-MAY-2023, 30-NOV-2023, 30-MAY-2024, 02-DEC-2024]
```