

利率类

Bond_Generic

Revision: 2

普通债券。

交易参数列表（名称、举例、注释）

ValuationDate	10-Oct-2011	The date when valuation performs.
Currency	USD	The currency name.
Notional	1000000	Contract <u>notional</u> .
CouponRate	0.035	The annualized rate of coupons payment.
CouponBasis	Act/360	The day-count basis of coupon payment.
PayPrincipalAtMaturity	TRUE	Indicate whether ('TRUE') or not ('FALSE') the principal <u>notional</u> is paid at maturity date.
TradeDate	10-Oct-2011	The date of contract trade-in. Set it equal to the 'ValuationDate' by default.
EffectiveDate	12-Apr-2011	The date when the bond starts <u>accrual</u> .
MaturityDate	10-Oct-2030	The date when the bond ends <u>accrual</u> .
FirstCouponDate	9-May-2011	The date of first coupon payment.
PenultimateCouponDate	9-Mar-2030	The date of second-last coupon payment.
PayFreq	6M	The frequency of coupon payment.
CompoundingFreq	6M	The frequency of coupon compounding.
FrontStub	TRUE	Indicates whether the stub is placed at the beginning ('TRUE') or at the end ('FALSE') of the schedule
LongStub	FALSE	Indicates whether the stub is long ('TRUE') or short ('FALSE'); stub length is relative to frequency.
AccrualDateBusAdj	MF	For <u>accrual</u> dates. The business-date-adjustment rule if the target date falls

		on non-business date, e.g. 'F', 'MF', 'P', 'MP'.
PayDateBusAdj	F	For coupon payment dates. The business-date-adjustment rule if the target date falls on non-business date, e.g. 'F', 'MF', 'P', 'MP'.
PrincipalPayDateBusAdj	F	For principal payment date. The business-date-adjustment rule if the target date falls on non-business date, e.g. 'F', 'MF', 'P', 'MP'.
CouponPaymentLag	2bd	The lag between <u>accrual</u> end date and coupon payment date.
SettlementLag	2bd	The lag between contract trade date and settlement date.
YieldToMaturity	0.021	Bond yield to maturity rate.
SolvingYieldByPrice	FALSE	Indicate whether to reversely solve the yield to maturity rate by bond market quoted price.
QuotedPrice	123.0919296	The market quoted price of bond that will be used to solve the yield to maturity rate.
IsDirtyPrice	TRUE	Indicate whether the market quoted price of bond is a clean price ('FALSE') or a dirty price ('TRUE', i.e. includes accrued interest).
IsCallable	FALSE	Indicate whether ('TRUE') or not ('FALSE') the bond has redemption right to call back.
CallDate	8-jun-2021	The date for bond redemption, if the bond is <u>callable</u> .
CallPrice	120	The price for bond redemption, if the bond is <u>callable</u> .

实测案例（交易输入，csv 格式）：

ValuationDate,10-oct-2011
Currency,USD
Notional,1000000
CouponRate,0.035
CouponBasis,Act/360
ExchangePrincipal,true
TradeDate,10-oct-2011
EffectiveDate,12-apr-2011
MaturityDate,10-oct-2030
FirstCouponDate,9-may-2011
PenultimateCouponDate,9-mar-2030
PayFreq,6M
CompoundingFreq,6M
FrontStub,true
LongStub,false
AccrualDateBusAdj,MF
PayDateBusAdj,F
PrincipalPayDateBusAdj,F
CouponPaymentLag,2bd
SettlementLag,2bd
YieldToMaturity,0.021
SolvingYieldByPrice,false
QuotedPrice,123.0919296
IsDirtyPrice,true
IsCallable,false
CallDate,8-jun-2021
CallPrice,120

实测案例（交易输出，csv 格式）：

```
1 Gui_Temp_Trade_3
2 Time calculate: 26.31ms
3 [Rate]Coupon,0.035
4 [Rate]Yield To Maturity,0.021
5 Time To Maturity (in years),19.0
6 Modified Duration,14.3416222184357
7 Macaulay Duration,14.4922092517293
8 Convexity,252.399401772661
9 Delta,-1.76513308155778E7
10 Gamma,3106472.38540153
11 [USD]DV01,1765.13308155778
12 [USD]DV01 100,null
13 [Date]First Coupon Date,11-may-2011
14 [Date]Last Coupon Date,15-oct-2030
15 [Date]Penultimate Coupon Date,13-mar-2030
16 [Date]Maturity,10-oct-2030
17 [Date]Ex-Coupon Date,9-nov-2011
18 [Date]Next Ex-Coupon Date,9-may-2012
19 [USD]PV,1230776.44542104
20 [USD]Accrued,14972.2222222223
21 [USD]Clean,1215804.22319882
22 [USD]Dirty 100,123.077644542104
23 [USD]Clean 100,121.580422319882
24 [USD]Accrued 100,1.49722222222223
25 Accrued Daycount,154.0
26 [USD]All-In Consideration,1230776.45
27 [USD]Interest Consideration,14972.22
28 [USD]Clean Consideration,1215804.23
29 [Rate]Current Yield,0.0287875295480665
30 Wal (Principal),19.2916666666667
31 Wal (Balance),19.2916666666667
```

32	Payment Schedule: ,						
33	ACCRUAL START	EX DATE	ACCRUAL END	PAY DATE	COUPON	PRINCIPAL PAYMENT	
34	12-apr-2011	9-may-2011	9-may-2011	11-may-2011	2625.0000000001	0	
35	9-may-2011	9-nov-2011	9-nov-2011	14-nov-2011	17500.0000000001	0	
36	9-nov-2011	9-may-2012	9-may-2012	11-may-2012	17500.0000000001	0	
37	9-may-2012	9-nov-2012	9-nov-2012	14-nov-2012	17500.0000000001	0	
38	9-nov-2012	9-may-2013	9-may-2013	13-may-2013	17500.0000000001	0	
39	9-may-2013	12-nov-2013	12-nov-2013	14-nov-2013	17500.0000000001	0	
40	12-nov-2013	9-may-2014	9-may-2014	13-may-2014	17500.0000000001	0	
41	9-may-2014	10-nov-2014	10-nov-2014	13-nov-2014	17500.0000000001	0	
42	10-nov-2014	11-may-2015	11-may-2015	13-may-2015	17500.0000000001	0	
43	11-may-2015	9-nov-2015	9-nov-2015	12-nov-2015	17500.0000000001	0	
44	9-nov-2015	9-may-2016	9-may-2016	11-may-2016	17500.0000000001	0	
45	9-may-2016	9-nov-2016	9-nov-2016	14-nov-2016	17500.0000000001	0	
46	9-nov-2016	9-may-2017	9-may-2017	11-may-2017	17500.0000000001	0	
47	9-may-2017	9-nov-2017	9-nov-2017	13-nov-2017	17500.0000000001	0	
48	9-nov-2017	9-may-2018	9-may-2018	11-may-2018	17500.0000000001	0	
49	9-may-2018	9-nov-2018	9-nov-2018	14-nov-2018	17500.0000000001	0	
50	9-nov-2018	9-may-2019	9-may-2019	13-may-2019	17500.0000000001	0	
51	9-may-2019	12-nov-2019	12-nov-2019	14-nov-2019	17500.0000000001	0	
52	12-nov-2019	11-may-2020	11-may-2020	13-may-2020	17500.0000000001	0	
53	11-may-2020	9-nov-2020	9-nov-2020	12-nov-2020	17500.0000000001	0	
54	9-nov-2020	10-may-2021	10-may-2021	12-may-2021	17500.0000000001	0	
55	10-may-2021	9-nov-2021	9-nov-2021	12-nov-2021	17500.0000000001	0	
56	9-nov-2021	9-may-2022	9-may-2022	11-may-2022	17500.0000000001	0	
57	9-may-2022	9-nov-2022	9-nov-2022	14-nov-2022	17500.0000000001	0	
58	9-nov-2022	9-may-2023	9-may-2023	11-may-2023	17500.0000000001	0	
59	9-may-2023	9-nov-2023	9-nov-2023	13-nov-2023	17500.0000000001	0	
60	9-nov-2023	9-may-2024	9-may-2024	13-may-2024	17500.0000000001	0	
61	9-may-2024	12-nov-2024	12-nov-2024	14-nov-2024	17500.0000000001	0	
62	12-nov-2024	9-may-2025	9-may-2025	13-may-2025	17500.0000000001	0	
63	9-may-2025	10-nov-2025	10-nov-2025	13-nov-2025	17500.0000000001	0	
64	10-nov-2025	11-may-2026	11-may-2026	13-may-2026	17500.0000000001	0	
65	11-may-2026	9-nov-2026	9-nov-2026	12-nov-2026	17500.0000000001	0	
66	9-nov-2026	10-may-2027	10-may-2027	12-may-2027	17500.0000000001	0	
67	10-may-2027	9-nov-2027	9-nov-2027	12-nov-2027	17500.0000000001	0	
68	9-nov-2027	9-may-2028	9-may-2028	11-may-2028	17500.0000000001	0	
69	9-may-2028	9-nov-2028	9-nov-2028	13-nov-2028	17500.0000000001	0	
70	9-nov-2028	9-may-2029	9-may-2029	11-may-2029	17500.0000000001	0	
71	9-may-2029	9-nov-2029	9-nov-2029	14-nov-2029	17500.0000000001	0	
72	9-nov-2029	11-mar-2030	11-mar-2030	13-mar-2030	11861.1111111111	0	
73	11-mar-2030	10-oct-2030	10-oct-2030	15-oct-2030	20708.3333333333	1000000	

75	Cash Flow Table:,					
76	PAY DATE	COUPON ACTUAL	COUPON PV	PRINCIPAL PAYMENT ACTUAL	PRINCIPAL PAYMENT PV	
77	11-may-2011	2625.0000000001	0	0	0	
78	14-nov-2011	17500.0000000001	17469.5611673794	0	0	
79	11-may-2012	17500.0000000001	17288.036781177	0	0	
80	14-nov-2012	17500.0000000001	17108.3985959198	0	0	
81	13-may-2013	17500.0000000001	16930.6270122908	0	0	
82	14-nov-2013	17500.0000000001	16754.7026346272	0	0	
83	13-may-2014	17500.0000000001	16580.6062688047	0	0	
84	13-nov-2014	17500.0000000001	16408.3189201432	0	0	
85	13-may-2015	17500.0000000001	16237.8217913342	0	0	
86	12-nov-2015	17500.0000000001	16069.0962803901	0	0	
87	11-may-2016	17500.0000000001	15902.1239786147	0	0	
88	14-nov-2016	17500.0000000001	15736.8866685944	0	0	
89	11-may-2017	17500.0000000001	15573.3663222112	0	0	
90	13-nov-2017	17500.0000000001	15411.5450986751	0	0	
91	11-may-2018	17500.0000000001	15251.4053425781	0	0	
92	14-nov-2018	17500.0000000001	15092.9295819674	0	0	
93	13-may-2019	17500.0000000001	14936.1005264398	0	0	
94	14-nov-2019	17500.0000000001	14780.9010652546	0	0	
95	13-may-2020	17500.0000000001	14627.3142654672	0	0	
96	12-nov-2020	17500.0000000001	14475.3233700814	0	0	
97	12-may-2021	17500.0000000001	14324.911796221	0	0	
98	12-nov-2021	17500.0000000001	14176.0631333212	0	0	
99	11-may-2022	17500.0000000001	14028.7611413371	0	0	
100	14-nov-2022	17500.0000000001	13882.9897489729	0	0	
101	11-may-2023	17500.0000000001	13738.7330519277	0	0	
102	13-nov-2023	17500.0000000001	13595.9753111605	0	0	
103	13-may-2024	17500.0000000001	13454.7009511732	0	0	
104	14-nov-2024	17500.0000000001	13314.8945583109	0	0	
105	13-may-2025	17500.0000000001	13176.5408790806	0	0	
106	13-nov-2025	17500.0000000001	13039.6248184865	0	0	
107	13-may-2026	17500.0000000001	12904.1314383834	0	0	
108	12-nov-2026	17500.0000000001	12770.045955847	0	0	
109	12-may-2027	17500.0000000001	12637.3537415607	0	0	
110	12-nov-2027	17500.0000000001	12506.0403182194	0	0	
111	11-may-2028	17500.0000000001	12376.0913589504	0	0	
112	13-nov-2028	17500.0000000001	12247.49268575	0	0	
113	11-may-2029	17500.0000000001	12120.2302679367	0	0	
114	14-nov-2029	17500.0000000001	11994.2902206202	0	0	
115	13-mar-2030	11861.1111111111	8044.99096660427	0	0	
116	15-oct-2030	20708.3333333333	13873.2226864677	1000000	669934.29471876	
117						