利率类

OISSwap_Generic

Revision: 1

隔夜利率互换，核心特征在于 float leg rate 通过高频复利叠加计息（如：美元 USD FedFunds OIS Swap 采用 Float Leg Accrual Frequency = 1bd，人民币 CNY 7D-Repo OIS Swap 采用 Float Leg Accrual Frequency = 1w 来复利叠加计息）。

提供一些列 convention 输入项，控制对应计息惯例细则。

支持 Fixed Leg 和 Float Leg 分别独立配置 Schedule。

交易参数列表（名称、USD OIS Swap 举例、CNY 7D-Repo Swap 举例、注释）

ValuationDate	18-Jun-19	18-Jun-19	The date when valuation performs.
Currency	USD	CNY	The currency name.
Notional	1000000	1000000	Contract notional. • When contract holder Pay Fixed leg and Receive Float leg, give a positive notional. • When contract holder Receive Fixed leg and Pay Float leg, give a negative notional.
EffectiveDate	27-Mar-18	27-Mar-18	The date when swap starts.
MaturityDate	27-Mar-23	27-Mar-23	The date when swap ends.
FixedLegCouponRate	0.035	0.035	The coupon rate of fixed leg.

FixedLegPayFreq	3M	3M	The pay frequency of fixed leg.
FixedLegDayCount	ACT/365	ACT/365	The day-count basis of fixed leg.
FixedLegPayLag	2bd	0bd	The delay in fixed leg payment.
FixedLegPayBusAdj	F	MF	The business day adjustment of fixed leg.
FloatLegPayFreq	3M	3M	The pay frequency of float leg.
FloatLegDayCount	ACT/360	ACT/360	The day-count basis of float leg.
FloatLegPayLag	2bd	0bd	The delay in float leg payment.
FloatLegPayBusAdj	F	F	The business day adjustment of float leg.
FloatLegAccrualFreq	1bd	1w	The float leg reset frequency for compounding accrual.
FloatLegAccrualBusAdj	F	MF	The business day adjustment of accrual dates.
FloatLegFixingLag	0bd	1bd	The delay in float leg fixing process.
FloatLegEndOfMonthRule	FALSE	TRUE	Indicate whether ('TRUE') or not ('FALSE') to apply end-of-month rule.
FloatLegSpread	0	0	The spread added to float leg rate. Default set to 0 if no spread.
SettlementLag	2bd	1bd	The delay of settlement.
FloatLegIndexCurve	CURVE_USD_OIS#BLOOMBERG#MID	CURVE_CNY_REPO7D#BLOOMBERG#MID	Module ID of the float leg index curve.

FloatLegIndexFixings	FEDL01#BLOOMBERG#1	CNRR007#BLOOMBERG#1	Module ID of the float leg index fixings.

实测案例 1 – USD OIS Swap（交易输入，csv 格式）：

ValuationDate,18-jun-2019

Currency,USD

Notional,1000000

EffectiveDate,27-mar-2018

MaturityDate,27-mar-2023

FixedLegCouponRate,0.035

FixedLegPayFreq,3M

FixedLegDayCount,ACT/365

FixedLegPayLag,2bd

FixedLegPayBusAdj,F

FloatLegPayFreq,3M

FloatLegDayCount,ACT/360

FloatLegPayLag,2bd

FloatLegPayBusAdj,F

FloatLegAccrualFreq,1bd

FloatLegAccrualBusAdj,F

FloatLegFixingLag,0bd,

FloatLegEndOfMonthRule,false

FloatLegSpread,0

SettlementLag,2bd

FloatLegIndexCurve,CURVE_USD_OIS#BLOOMBERG#MID

FloatLegIndexFixings,FEDL01#BLOOMBERG#1

实测案例（交易输出，csv 格式）：

	A	B	C	D	E	F	G	H	I
1	Gui_Temp_Trade_3								
2	Time calculate: 20.83ms								
3	Par Coupon Rate (%)	0.016409777							
4	Leg 1 Accrued (USD)	-7958.90411							
5	Leg 2 Accrued (USD)	5551.103857							
6	Fixed Leg Accrued (USD)	-7958.90411							
7	Float Leg Accrued (USD)	5551.103857							
8	Fixed Leg Principal (USD)	-127775.905							
9	Float Leg Principal(USD)	58088.26574							
10	Fixed Leg PV (USD)	-135734.8091							
11	Float Leg PV (USD)	63639.3696							
12	Accrued (USD)	-2407.800253							
13	Principal (USD)	-69687.63929							
14	NPV (USD)	-72095.43955							
15	BP Value (USD normalized)	-720.9543955							
16	Premium (USD normalized)	-6.968763929							
17	Fixed Leg Payment Dates	29-Jun-18	1-Oct-18	31-Dec-18	29-Mar-19	1-Jul-19	1-Oct-19	31-Dec-19	31-Mar-20
18	Fixed Leg Payments (USD)	-8630.136986	-8821.917808	-8726.027397	-8630.136986	-8821.917808	-8821.917808	-8726.027397	-8726.027397
19	Fixed Leg PVs (USD)	0	0	0	0	-8814.561203	-8765.57791	-8629.20542	-8592.09688
20	Float Leg Payment Dates	29-Jun-18	1-Oct-18	31-Dec-18	29-Mar-19	1-Jul-19	1-Oct-19	31-Dec-19	31-Mar-20
21	Float Leg Payments (USD)	4326.911408	4904.235034	5597.760992	6019.026266	6137.039605	5620.883698	4779.861415	4334.487623
22	Float Leg PVs (USD)	0	0	0	0	6131.921922	5584.98674	4726.825181	4267.960194
23	USD_DV01 (USD)	379.7158903							

实测案例 2 – CNY 7D-Repo Swap（交易输入，csv 格式）：

ValuationDate,18-jun-2019

Currency,CNY

Notional,1000000

EffectiveDate,27-mar-2018

MaturityDate,27-mar-2023

FixedLegCouponRate,0.035

FixedLegPayFreq,3M

FixedLegDayCount,ACT/365

FixedLegPayLag,0bd

FixedLegPayBusAdj,MF

FloatLegPayFreq,3M

FloatLegDayCount,ACT/360

FloatLegPayLag,0bd

FloatLegPayBusAdj,F

FloatLegAccrualFreq,1w

FloatLegAccrualBusAdj,MF

FloatLegFixingLag,1bd,

FloatLegEndOfMonthRule,true

FloatLegSpread,0

SettlementLag,1bd

FloatLegIndexCurve,CURVE_CNY_REPO7D#BLOOMBERG#MID

FloatLegIndexFixings,CNRR007#BLOOMBERG#1

实测案例（交易输出，csv 格式）：

	A	B	C	D	E	F	G	H	I	J	K
1	Gui_Temp_Trade_2										
2	Time calculate: 18.8ms										
3	Par Coupon Rate (%)	0.028133357									
4	Leg 1 Accrued (CNY)	-7958.90411									
5	Leg 2 Accrued (CNY)	6249.748777									
6	Fixed Leg Accrued (CNY)	-7958.90411									
7	Float Leg Accrued (CNY)	6249.748777									
8	Fixed Leg Principal (CNY)	-125168.1802									
9	Float Leg Principal(CNY)	100759.1598									
10	Fixed Leg PV (CNY)	-133127.0843									
11	Float Leg PV (CNY)	107008.9086									
12	Accrued (CNY)	-1709.155332									
13	Principal (CNY)	-24409.02038									
14	NPV (CNY)	-26118.17572									
15	BP Value (CNY normalized)	-261.1817572									
16	Premium (CNY normalized)	-2.440902038									
17	Fixed Leg Payment Dates	27-Jun-18	27-Sep-18	27-Dec-18	27-Mar-19	27-Jun-19	27-Sep-19	27-Dec-19	27-Mar-20	29-Jun-20	28-Sep-20
18	Fixed Leg Payments (CNY)	-8726.027397	-8821.917808	-8726.027397	-8630.136986	-8821.917808	-8821.917808	-8726.027397	-8726.027397	-9013.69863	-8726.027397
19	Fixed Leg PVs (CNY)	0	0	0	0	-8816.873744	-8758.498267	-8608.307682	-8552.346364	-8774.109913	-8437.678723
20	Float Leg Payment Dates	27-Jun-18	27-Sep-18	27-Dec-18	27-Mar-19	27-Jun-19	27-Sep-19	27-Dec-19	27-Mar-20	29-Jun-20	28-Sep-20
21	Float Leg Payments (CNY)	7748.946209	6815.823582	6763.152231	6599.079	6852.503116	6664.941616	6387.884557	6543.387718	6859.199694	6685.062001
22	Float Leg PVs (CNY)	0	0	0	0	6848.585095	6617.028277	6301.707891	6413.149491	6676.87866	6464.156349
23	CNY_DV01 (CNY)	362.1077042									
24											