

IRS Cross Ccy – Front and Back

PURPOSE

To show illustration of IRS cross currency front and back.

OVERVIEW

TRANSACTION DETAILS

Accounting Base Ccy
Trade ID
Trade Date
Start Date
Maturity Date
Structure
USD
IRS1001
3-Feb-03
3-Feb-03
3-Feb-06
Front and Back

Principal
Basis
Rate %
Accrual Method
Frequency

Pay Leg

USD 1,000,000
Fixed
5.000000
Act/360
Quarterly

Rec Leg

SGD 1,750,000
Float
5.000000
Act/365 (fixed)
Quarterly

Interest Payment Dates

From Date

3-Feb-03
5-May-03
3-Nov-05

To Date

5-May-03
4-Aug-03
3-Feb-06

Days

91
91
92

Fix Rate

5.000000%
5.000000%
5.000000%

USD (Pay) Fix

-12,638.89
-12,638.89
-12,777.78

Float Reset

4.900000%
5.123200%
4.900000%

SGD (Rec) Float

21,387.77
22,352.59
21,613.70

SUMMARY OF JOURNALS

ID	Date	Description
J1	3-Feb-03	Settlement on IRS
J2	3-Feb-03	Settlement on IRS
J3	28-Feb-03	Month End IRS Accruals
J4	1-Mar-03	Reversal Month End IRS Accruals.
J5	31-Mar-03	Month End IRS Accruals.
J6	1-Apr-03	Reversal Month End IRS Accruals
J7	30-Apr-03	Month End IRS Accruals
J8	1-May-03	Reversal Month End IRS Accruals

ID	Date	Description
J9	5-May-03	Interest Settlement on IRS
J10	3-Feb-06	Final Settlement on IRS

J1 Settlement on IRS

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	3-Feb-03	B	Cash at Bank	USD	-1,000,000.00	1.000000	USD	-1,000,000.00	J1a
IRS1001	3-Feb-03	B	FX USD Cash Clearing Account	USD	1,000,000.00	1.000000	USD	1,000,000.00	J1b

J2 Settlement on IRS

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	3-Feb-03	B	Cash at Bank	SGD	1,750,000.00	0.567456	USD	993,048.66	J2a
IRS1001	3-Feb-03	B	FX SGD Cash Clearing Account	SGD	-1,750,000.00	0.567456	USD	-993,048.66	J2b

Note J2a: The exchange rate on 03-Feb-03 is 1.76225 (Multiplier 0.567456). See Exchange Rates below.

J3 Month End IRS Accruals

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	28-Feb-03	B	[7000] IRS Receivable	SGD	6,108.22	0.568919	USD	3,475.08	J3a
IRS1001	28-Feb-03	P	[7002] IRS Income	SGD	-6,108.22	0.571584	USD	-3,491.36	J3b
IRS1001	28-Feb-03	P	[5003] Unrealised FX Gains and Loss	SGD	0.00	0.000000	USD	16.28	J3c
IRS1001	28-Feb-03	B	[7001] IRS Payable	USD	-3,611.11	1.000000	USD	-3,611.11	J3d

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	28-Feb-03	P	[7003] IRS Expenses	USD	3,611.11	1.000000	USD	3,611.11	J3e

Note J3a: Calculation of Accrual in SGD

Start date	3-Feb-03	
Month End Date	28-Feb-03	
Days (include 28-Feb)	26	=A
Start date	3-Feb-03	
Maturity Date	5-May-03	
Days (exclude 5-May)	91	=B
Total Interest	21,378.77	=C
Period Interest	6,108.22	=C*A/B

Note J3b: The average multiplier rate between 3-Feb and 28-Feb is 0.571584. See Exchange Rates below.

Note J3c: The unrealised foreign exchange loss on interest income is analyzed as follows:

	SGD	Rate+	USD
At Closing Rate	6,108.22	0.568919	3,475.08
At Average Rate	6,108.22	0.571584	3,491.36
	Loss in exchange		-16.28

+ Rates used for calculation are in full precision. Illustrated rates are rounded to 6dp.

Note J3d: Calculation of Accrual in USD

Start date	3-Feb-03	
Month End Date	28-Feb-03	
Days (include 28-Feb)	26	=A

Start date	3-Feb-03	
Maturity Date	5-May-03	
Days (exclude 5-May)	91	=B
Total Interest	12,638.89	=C
Period Interest	3,611.11	=C*A/B

J4

Reversal Month End IRS Accruals.

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	1-Mar-03	B	[7000] IRS Receivable	SGD	-6,108.22	0.568919	USD	-3,475.08	J4a
IRS1001	1-Mar-03	P	[7002] IRS Income	SGD	6,108.22	0.571584	USD	3,491.36	J4b
IRS1001	1-Mar-03	P	[5003] Unrealised FX Gains and Loss	SGD	0.00	0.000000	USD	-16.28	J4c
IRS1001	1-Mar-03	B	[7001] IRS Payable	USD	3,611.11	1.000000	USD	3,611.11	J4d
IRS1001	1-Mar-03	P	[7003] IRS Expenses	USD	-3,611.11	1.000000	USD	-3,611.11	J4e

J5

Month End IRS Accruals.

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	31-Mar-03	B	[7000] IRS Receivable	SGD	13,391.10	0.577434	USD	7,732.47	J5a
IRS1001	31-Mar-03	P	[7002] IRS Income	SGD	-13,391.10	0.571775	USD	-7,656.70	J5b
IRS1001	31-Mar-03	P	[5003] Unrealised FX Gains and Loss	SGD	0.00	0.000000	USD	-75.77	J5c
IRS1001	31-Mar-03	B	[7001] IRS Payable	USD	-7,916.67	1.000000	USD	-7,916.67	J5d

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	31-Mar-03	P	[7003] IRS Expenses	USD	7,916.67	1.000000	USD	7,916.67	J5e

Note J5a: Calculation of Accrual in SGD

Start date	3-Feb-03	
Month End Date	31-Mar-03	
Days (include 31-Mar)	57	=A
Start date	3-Feb-03	
Maturity Date	5-May-03	
Days (exclude 5-May)	91	=B
Total Interest	21,378.77	=C
Period Interest	13,391.10	=C*A/B

Note J5b: The average multiplier rate between 3-Feb and 31-Mar is 0.571775. See Exchange Rates below.

Note J5c: The unrealised foreign exchange gain on interest income is analyzed as follows:

	SGD	Rate+	USD
At Closing Rate	13,391.10	0.577434	7,732.47
At Average Rate	13,391.10	0.571775	7,656.70
	Gain in exchange		75.77

+ Rates used for calculation are in full precision. Illustrated rates are rounded to 6dp.

Note J5d: Calculation of Accrual in USD

Start date	3-Feb-03	
Month End Date	31-Mar-03	
Days (include 31-Mar)	57	=A

Start date	3-Feb-03	
Maturity Date	5-May-03	
Days (exclude 5-May)	91	=B
Total Interest	12,638.89	=C
Period Interest	7,916.67	=C*A/B

J6

Reversal Month End IRS Accruals

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	1-Apr-03	B	[7000] IRS Receivable	SGD	-13,391.10	0.577434	USD	-7,732.47	J6a
IRS1001	1-Apr-03	P	[7002] IRS Income	SGD	13,391.10	0.571775	USD	7,656.70	J6b
IRS1001	1-Apr-03	P	[5003] Unrealised FX Gains and Loss	SGD	0.00	0.000000	USD	75.77	J6c
IRS1001	1-Apr-03	B	[7001] IRS Payable	USD	7,916.67	1.000000	USD	7,916.67	J6d
IRS1001	1-Apr-03	P	[7003] IRS Expenses	USD	-7,916.67	1.000000	USD	-7,916.67	J6e

J7

Month End IRS Accruals

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	30-Apr-03	B	[7000] IRS Receivable	SGD	20,439.04	0.567681	USD	11,602.85	J7a
IRS1001	30-Apr-03	P	[7002] IRS Income	SGD	-20,439.04	0.572554	USD	-11,702.46	J7b
IRS1001	30-Apr-03	P	[5003] Unrealised FX Gains and Loss	SGD	0.00	0.000000	USD	99.61	J7c
IRS1001	30-Apr-03	B	[7001] IRS Payable	USD	-12,083.33	1.000000	USD	-12,083.33	J7d
IRS1001	30-Apr-03	P	[7003] IRS Expenses	USD	12,083.33	1.000000	USD	12,083.33	J7e

Note J7a: Calculation of Accrual in USD

Start date	3-Feb-03	
Month End Date	30-Apr-03	
Days (include 30-Apr)	87	=A
Start date	3-Feb-03	
Maturity Date	5-May-03	
Days (exclude 5-May)	91	=B
Total Interest	21,378.77	=C
Period Interest	20,439.04	=C*A/B

Note J7b: The average multiplier rate between 3-Feb to 30-Apr is 0.572554. See Exchange Rates below.

Note J7c: The unrealised foreign exchange loss on interest income is analyzed as follows:

	SGD	Rate+	USD
At Closing Rate	20,439.04	0.567681	11,602.85
At Average Rate	20,439.04	0.572554	11,702.46
	Loss in exchange		-99.61

+ Rates used for calculation are in full precision. Illustrated rates are rounded to 6dp.

Note J7d: Calculation of Accrual in USD

Start date	3-Feb-03	
Month End Date	30-Apr-03	
Days (include 30-Apr)	87	=A
Start date	3-Feb-03	
Maturity Date	5-May-03	
Days (exclude 5-May)	91	=B

Total Interest	12,638.89	=C
Period Interest	12,083.33	=C*A/B

J8

Reversal Month End IRS Accruals

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	1-May-03	B	[7000] IRS Receivable	SGD	-20,439.04	0.567681	USD	-11,602.85	J8a
IRS1001	1-May-03	P	[7002] IRS Income	SGD	20,439.04	0.572554	USD	11,702.46	J8b
IRS1001	1-May-03	P	[5003] Unrealised FX Gains and Loss	SGD	0.00	0.000000	USD	-99.61	J8c
IRS1001	1-May-03	B	[7001] IRS Payable	USD	12,083.33	1.000000	USD	12,083.33	J8d
IRS1001	1-May-03	P	[7003] IRS Expenses	USD	-12,083.33	1.000000	USD	-12,083.33	J8e

J9

Interest Settlement on IRS

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	5-May-03	B	Cash	SGD	21,378.77	0.570125	USD	12,188.58	J9a
IRS1001	5-May-03	P	[7002] IRS Income	SGD	-21,378.77	0.572689	USD	-12,243.39	J9b
IRS1001	5-May-03	P	[5008] FX Realised - Income	SGD	0.00	0.000000	USD	54.81	J9c
IRS1001	5-May-03	B	Cash	USD	-12,638.89	1.000000	USD	-12,638.89	J9d
IRS1001	5-May-03	P	[7003] IRS Expenses	USD	12,638.89	1.000000	USD	12,638.89	J9e

Note J9a: The realised foreign exchange loss on interest income is analyzed as follows:

	SGD	Rate+	USD
At Closing Rate	21,378.77	0.570125	12,188.58
At Average Date	21,378.77	0.572689	12,243.39
	Loss in exchange		-54.81

+ Rates used for calculation are in full precision. Illustrated rates are rounded to 6dp.

Note J9b: The average multiplier rate between 3-Feb to 5-May is 0.572689. See Exchange Rates below.

J10 Final Settlement on IRS

TradeID	PostDate	B/P	Account	Ccy	Ccy Amount	Exc Rate	Ccy	Base Amount	Line
IRS1001	3-Feb-06	B	Cash at Bank	USD	-1,012,777.78	1.000000	USD	-1,012,777.78	J10a
IRS1001	3-Feb-06	B	FX USD Cash Clearing Account	USD	1,000,000.00	1.000000	USD	1,000,000.00	J10b
IRS1001	3-Feb-06	P	[7003] IRS Expenses	USD	12,777.78	1.000000	USD	12,777.78	J10c
IRS1001	3-Feb-06	B	Cash	SGD	1,771,613.70	0.564898	USD	1,000,781.65	J10d
IRS1001	3-Feb-06	B	FX SGD Cash Clearing Account	SGD	-1,750,000.00	0.564898	USD	-988,572.11	J10e
IRS1001	3-Feb-06	P	[7002] IRS Income	SGD	-21,613.70	0.574810	USD	-12,423.78	J10f
IRS1001	3-Feb-06	P	[5008] FX Realised - Income	SGD	0.00	0.000000	USD	214.24	J10g

Note J10f: The average multiplier rate between 3-Nov to 3-Feb is 0.574810. See Exchange Rates below.

Note J10g: The realised foreign exchange loss on interest income is analyzed as follows:

	SGD	Rate+	USD
At Closing Rate	21,613.70	0.564898	12,209.54
At Average Date	21,613.70	0.574810	12,423.78
	Loss in exchange		-214.24

+ Rates used for calculation are in full precision. Illustrated rates are rounded to 6dp.

EXCHANGE RATES

Our illustration assumes the company uses different daily exchange rates for accounting.

Average rates are computed by using the multiplier rate from trade/transaction currency to the base currency each day and averaging this over the relevant period.

The following rates were used for this illustration.

Spot Rate

Date	USD/SGD	SGD/USD*
3-Feb-03	1.762250	0.567456
28-Feb-03	1.757720	0.568919
31-Mar-03	1.731800	0.577434
30-Apr-03	1.780370	0.561681
5-May-03	1.754000	0.570125
1-Jun-03	1.754360	0.570008
3-Nov-05	1.743900	0.586720
3-Feb-06	1.770230	0.564898

Average

From Date	To Date	SGD/USD*
3-Feb-03	28-Feb-03	0.571584

3-Feb-03	31-Mar-03	0.571775
3-Feb-03	30-Apr-03	0.572554
3-Feb-03	5-May-03	0.572689
3-Nov-05	3-Feb-06	0.574810

* Rates used for calculation are in full precision.
Illustrated rates are rounded to 6dp.

FREQUENTLY ASKED QUESTIONS

RELATED INFORMATION

CHANGE HISTORY

Date	By	Changes
23-Aug-2008	CS	Creation.
13-Jun-2016	RJ	Reformatted.
24-Apr-2020	LT	Re-formatting.