# IRS Cross Ccy – Notional

**PURPOSE**

To show illustration of IRS cross currency notional.

**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 |
| Notional |

| |
|---|
| 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

| |
|---|
| 21,378.77 |
| 22,352.59 |
| 21,613.70 |

**SUMMARY OF JOURNALS**

| ID | Date | Description |
|---|---|---|
| J1 | 28-Feb-03 | Month End IRS Accruals |
| J2 | 1-Mar-03 | Reversal Month End IRS Accruals |
| J3 | 31-Mar-03 | Month End IRS Accruals |
| J4 | 1-Apr-03 | Reversal Month End IRS Accruals. |
| J5 | 30-Apr-03 | Month End IRS Accruals. |
| J6 | 1-May-03 | Reversal Month End IRS Accruals |
| J7 | 5-May-03 | Interest Settlement on IRS |
| J8 | 3-Feb-06 | Final Settlement on IRS |

**J1** **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 | J1a |
| IRS1001 | 28-Feb-03 | P | [7002] IRS Income | SGD | -6,108.22 | 0.571584 | USD | -3,491.36 | J1b |
| IRS1001 | 28-Feb-03 | P | [5003] Unrealised FX Gains and Loss | SGD | 0.00 | 0.000000 | USD | 16.28 | J1c |
| IRS1001 | 28-Feb-03 | B | [7001] IRS Payable | USD | -3,611.11 | 1.000000 | USD | -3,611.11 | J1d |
| IRS1001 | 28-Feb-03 | P | [7003] IRS Expenses | USD | 3,611.11 | 1.000000 | USD | 3,611.11 | J1e |

**Note J1a: 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 J1b: The average multiplier rate between 3-Feb and 28-Feb is 0.571584. See Exchange Rates below.**

**Note J1c: 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 J1d: 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 |

**J2 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 | J2a |
| IRS1001 | 1-Mar-03 | P | [7002] IRS Income | SGD | 6,108.22 | 0.571584 | USD | 3,491.36 | J2b |
| IRS1001 | 1-Mar-03 | P | [5003] Unrealised FX Gains and Loss | SGD | 0.00 | 0.000000 | USD | -16.28 | J2c |
| IRS1001 | 1-Mar-03 | B | [7001] IRS Payable | USD | 3,611.11 | 1.000000 | USD | 3,611.11 | J2d |
| IRS1001 | 1-Mar-03 | P | [7003] IRS Expenses | USD | -3,611.11 | 1.000000 | USD | -3,611.11 | J2e |

**J3 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 | J3a |
| IRS1001 | 31-Mar-03 | P | [7002] IRS Income | SGD | -13,391.10 | 0.571775 | USD | -7,656.70 | J3b |
| IRS1001 | 31-Mar-03 | P | [5003] Unrealised FX Gains and Loss | SGD | 0.00 | 0.000000 | USD | -75.77 | J3c |
| IRS1001 | 31-Mar-03 | B | [7001] IRS Payable | USD | -7,916.67 | 1.000000 | USD | -7,916.67 | J3d |
| IRS1001 | 31-Mar-03 | P | [7003] IRS Expenses | USD | 7,916.67 | 1.000000 | USD | 7,916.67 | J3e |

**Note J3a: 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 J3b: The average multiplier rate between 3-Mar and 31-Mar is 0.571775. See Exchange Rates below.**

**Note J3c: 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 J3d: 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 |

**J4 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 | J4a |
| IRS1001 | 1-Apr-03 | P | [7002] IRS Income | SGD | 13,391.10 | 0.571775 | USD | 7,656.70 | J4b |
| IRS1001 | 1-Apr-03 | P | [5003] Unrealised FX Gains and Loss | SGD | 0.00 | 0.000000 | USD | 75.77 | J4c |
| IRS1001 | 1-Apr-03 | B | [7001] IRS Payable | USD | 7,916.67 | 1.000000 | USD | 7,916.67 | J4d |
| IRS1001 | 1-Apr-03 | P | [7003] IRS Expenses | USD | -7,916.67 | 1.000000 | USD | -7,916.67 | J4e |

**J5 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 | J5a |
| IRS1001 | 30-Apr-03 | P | [7002] IRS Income | SGD | -20,439.04 | 0.572554 | USD | -11,702.46 | J5b |
| IRS1001 | 30-Apr-03 | P | [5003] Unrealised FX Gains and Loss | SGD | 0.00 | 0.000000 | USD | 99.61 | J5c |
| IRS1001 | 30-Apr-03 | B | [7001] IRS Payable | USD | -12,083.33 | 1.000000 | USD | -12,083.33 | J5d |
| IRS1001 | 30-Apr-03 | P | [7003] IRS Expenses | USD | 12,083.33 | 1.000000 | USD | 12,083.33 | J5e |

**Note J5a: Calculation of Accrual in SGD**

| | | |
|---|---|---|
| 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 J5b: The average multiplier rate between 3-Feb to 30-Apr is 0.572554. See Exchange Rates below.**

**Note J5c: 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 J5d: 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 |

**J6 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 | J6a |
| IRS1001 | 1-May-03 | P | [7002] IRS Income | SGD | 20,439.04 | 0.572554 | USD | 11,702.46 | J6b |
| IRS1001 | 1-May-03 | P | [5003] Unrealised FX Gains and Loss | SGD | 0.00 | 0.000000 | USD | -99.61 | J6c |
| IRS1001 | 1-May-03 | B | [7001] IRS Payable | USD | 12,083.33 | 1.000000 | USD | 12,083.33 | J6d |
| IRS1001 | 1-May-03 | P | [7003] IRS Expenses | USD | -12,083.33 | 1.000000 | USD | -12,083.33 | J6e |

**J7 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 | J7a |
| IRS1001 | 5-May-03 | P | [7002] IRS Income | SGD | -21,378.77 | 0.572689 | USD | -12,243.39 | J7b |
| IRS1001 | 5-May-03 | P | [5008] FX Realised - Income | SGD | 0.00 | 0.000000 | USD | 54.81 | J7c |
| IRS1001 | 5-May-03 | B | Cash | USD | -12,638.89 | 1.000000 | USD | -12,638.89 | J7d |
| IRS1001 | 5-May-03 | P | [7003] IRS Expenses | USD | 12,638.89 | 1.000000 | USD | 12,638.89 | J7e |

**Note J7a: 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 J7b: The average multiplier rate between 3-Feb to 5-May is 0.572689. See Exchange Rates below.**

## J8 Final Settlement on IRS

| TradeID | PostDate | B/P | Account | Ccy | Ccy Amount | Exc Rate | Ccy | Base Amount | Line |
|---|---|---|---|---|---|---|---|---|---|
| IRS1001 | 3-Feb-06 | B | Cash | SGD | 21,613.70 | 0.564898 | USD | 12,209.54 | J8a |
| IRS1001 | 3-Feb-06 | P | [7002] IRS Income | SGD | -21,613.70 | 0.574810 | USD | -12,423.78 | J8b |

| TradeID | PostDate | B/P | Account | Ccy | Ccy Amount | Exc Rate | Ccy | Base Amount | Line |
|---|---|---|---|---|---|---|---|---|---|
| IRS1001 | 3-Feb-06 | P | [5008] FX Realised - Income | SGD | 0.00 | 0.000000 | USD | 214.24 | J8c |
| IRS1001 | 3-Feb-06 | B | Cash | USD | -12,777.78 | 1.000000 | USD | -12,777.78 | J8d |
| IRS1001 | 3-Feb-06 | P | [7003] IRS Expenses | USD | 12,777.78 | 1.000000 | USD | 12,777.78 | J8e |

**Note J8b: The average multiplier rate between 3-Nov to 3-Feb is 0.574810. See Exchange Rates below.**

**Note J8c: 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. |
| 6-May-2020 | LT | Re-formatting. |