

SWAP CHARGING FORMULAS

The Basic Buy side formula used will be : - (1-month ARR plus 1 month spread adjustment component (as applicable) + Markup * Multiplier), rounded down to the last integer and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Buy End Rate
Index	Major	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1	-10
Index	Major	EUR	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	8	1	-8
Index	Minor	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1.25	-12
Shares	Major	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	1	-12
Shares	Major	EUR	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	10	1	-10
ETF	Minor	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1.25	-12
Bonds	Minor	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1	-12
Future Commodities	Major	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	1	-12

The Basic Sell side formula used will be : -(Markup – (0.5)*1-month ARR plus 1 month spread adjustment component (as applicable) * Multiplier), rounded down to the last integer and updated on the first day of each calendar month or anytime in between due to interest rate increases or major interest rates moves. 1-month ARR plus 1 month spread adjustment component (as applicable)

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Sell End Rate
Index	Major	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1	-6
Index	Major	EUR	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	8	1	-7
Index	Minor	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1.25	-8
Shares	Major	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	1	-8
Shares	Major	EUR	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	10	1	-9
ETF	Minor	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1.25	-8
Bonds	Minor	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1	-8
Future Commodities	Major	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	1	-8

The Basic Buy side formula used will be : -Mark Up – (ARR + 1M Adjustment) of Base Currency, rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup*	Multiplier	Long
Foreign Exchange	Major	EUR	USD	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	4	3	-4.51
Foreign Exchange	Minor	AUD	CAD	kDBB1M CMPN Curnc	2.65	N/A	N/A	2.65	5	2	-7.65
Foreign Exchange	Exotic	USD	PLN	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1	-10.73

*Markup depends on FX Category

The Basic Sell side formula used will be : - Mark Up + (ARR + 1M Adjustment) of Base Currency/Multiplier¹), rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Short
Foreign Exchange	Major	EUR	USD	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	4	3	-3.83
Foreign Exchange	Minor	AUD	CAD	kDBB1M CMPN Curnc	2.65	N/A	N/A	2.65	5	2	-3.68
Foreign Exchange	Exotic	USD	PLN	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	8	1	-5.27

1. Multiplier takes multiple risk factors in consideration

Exceptions on the above formulas for specific Foreign exchange instruments as per tables below: The Basic Buy side formula used will be : - Mark Up + (ARR + 1M Adjustment) of Base Currency/Multiplier²), rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Long
Foreign Exchange	Major	USD	CHF	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	4	3	-3.09
Foreign Exchange	Minor	GBP	JPY	XSONIA1M Index	1.92	YBP0001M Index	0.033	1.96	5	3	-4.35
Foreign Exchange	Minor	AUD	CHF	kDBB1M CMPN Curnc	2.65	N/A	N/A	2.65	5	3	-4.12

2. Multiplier is kept the same for all foreign exchange pairs in this exception rule

The Basic sell side formula used will be : -Mark Up – (ARR + 1M Adjustment) of Base Currency, rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Short
Foreign Exchange	Major	USD	CHF	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	4	3	-6.61
Foreign Exchange	Minor	GBP	JPY	XSONIA1M Index	1.92	YBP0001M Index	0.033	1.96	5	3	-6.92
Foreign Exchange	Minor	AUD	CHF	kDBB1M CMPN Curnc	2.65	N/A	N/A	2.65	5	3	-7.65

Exceptions on the above formulas for specific Foreign exchange instruments as per tables below: The Basic Buy side formula used will be : -Mark Up³ – (ARR + 1M Adjustment), rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Long
Foreign Exchange	Exotic	CHF	PLN	XSARON1M Index	0.06	YSF0001M Index	-0.057	0.00	10	1	-10.00

3. Markup is increased for these foreign exchange pairs due to the significant deference between Base currency and Quote currency ARR interest rates

The Basic sell side formula used will be : -Mark Up – (ARR + 1M Adjustment) of Base Currency, rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Short
Foreign Exchange	Exotic	CHF	PLN	XSARON1M Index	0.06	YSF0001M Index	-0.057	0.00	10	1	-10.00

Exceptions on the above formulas for specific Foreign exchange instruments as per tables below: The Basic Buy side formula used will be : - Mark Up + (ARR + 1M Adjustment) of Base Currency/Multiplier⁴), rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Long
Foreign Exchange	Minor	EUR	NOK	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	8	3	-7.83

4. Multiplies set at 3 for all FX categories in the FX pairs falling under this exception rule.

The Basic sell side formula used will be : -Mark Up⁵ – (ARR + 1M Adjustment) of Base Currency, rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Base Currency	Quote Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Short
Foreign Exchange	Minor	EUR	NOK	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	8	3	-8.51

5. Markup is increased for these foreign exchange pairs due to the significant deference between Base currency and Quote currency ARR interest rates.

The Basic Buy side formula used will be : - Mark Up⁶ + (ARR + 1M Adjustment) of instrument Currency/Multiplier⁷), rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Long
US Oil	Energy	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	30	3	-29.09

6. The markup is increased due to high risk on Oil energy products
7. Multiple always set at 3

The Basic sell side formula used will be : -Mark Up – (ARR + 1M Adjustment) of instrument Currency, rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Short
US Oil	Energy	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	30	3	-32.73

The Basic Buy side formula used will be : - Mark Up + (ARR + 1M Adjustment) of instrument Currency/Multiplier⁷), rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Long
XAUUSD	Metals	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	3	-9.09
XAGUSD	Metals	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	3	-9.09

The Basic sell side formula used will be : -Mark Up – (ARR + 1M Adjustment) of instrument Currency, rounded down to the second decimal and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Multiplier	Short
XAUUSD	Metals	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	3	-12.61
XAGUSD	Metals	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	10	3	-12.61

The Basic Buy or Sell side formula used will be : - Mark Up - (ARR + 1M Adjustment) of instrument Currency, rounded down to the last integer and updated on the first day of each calendar month or anytime in between, due to interest rate increases or major interest rates moves.

Instrument	Category	Currency	Bloomberg Ticker	Rate 6th Oct 22	1M Adjustment	Rate 6th Oct 22	ARR +1M Rate	Markup	Long/Short
Shares	Spread Betting	USD	XSOFR1M Index	2.61	YUS0001M Index	0.114	2.73	5	-8 ⁸
Shares	Spread Betting	GBP	XSONIA1M Index	1.92	YBP0001M Index	0.033	1.96	5	-7
Shares	Spread Betting	EUR	XESTR1M Index	0.46	YEE0001M Index	0.046	0.51	5	-6
Shares	Spread Betting	HKD	HIHDO1M Index	2.48	N/A	N/A	2.48	5	-7

8. The daily charges are calculated by dividing ARR+1M Rate with total days in a year. For GBP and HKD share currencies, days in a year are 365 while for USD and EUR 360.