SIMPLE METHOD FOR OPTIONS (CARVE OUT)

Where a credit institution uses this approach, the table below must be used to calculate the capital requirements for market risk on options plus any related hedges. These figures may only be used for options with a residual maturity of less than six months. Advice must be sought from the authority for options with a residual maturity of over six months (credit institutions that have models which have been recognised by the authority may not use the method prescribed below for those option models that have been recognised).

	Option Position	In the Money by more than P%	In the Money by less than P%	Out of the Money
Naked	Long	NL	NL	NL
	Short	NSI	NSI	NSO
Hedged	Long	0%	LCI	HO
	Short	0%	SHI	HO

Definitions

Long and short: As with all the 'carve-outs', a long option position is one where an option has been purchased, while a short option position is one where an option has been written/sold.

Underlying: Currency bought by bank if option is exercised.

Hedged: An option will be deemed to be hedged for the purposes of these calculations when the offsetting positions (short in the underlying, and long in the currency to be sold) match the amounts into which the option is exercisable. When the amounts underlying the option are larger than the offsetting positions, the residual option will be treated as a separate naked option.

Market exchange rate and exercise price: should be expressed as unit of currency to be sold by bank per unit of currency to be bought (if option is exercised). In principle, the market exchange rate used should be the forward rate. However, for short dated options (up to six months residual maturity) banks may use the spot rate if necessary. Given the specification, in the money is defined differently for long and short positions:

(a) For long option positions

In the money: market exchange rate exceeds exercise price;
Out of the money: exercise price exceeds market exchange rate;

(b) For short option positions

In the money: exercise price exceeds market exchange rate;
Out of the money: market exchange rate exceeds exercise price;

P% is 8%.

The capital requirements are:-

NL The lesser of:-
(a) the market value of the underlying instrument multiplied by P%; and
(b) the current value of the option on the credit institution's books.

NSI The market value of the underlying position multiplied by P%.

NSO The market value of the underlying position multiplied by P%
minus
0.5 multiplied by the amount by which the option is Out of the Money
(subject to a maximum reduction to zero)

HO The market value of the underlying position multiplied by P%

SHI The market value of the underlying position multiplied by P%
minus
the mark-to-market value of the option
(subject to a maximum reduction to zero)

LCI (1+P%) multiplied by underlying position valued at the exercise price
minus
the market value of the underlying position
(subject to a maximum reduction to zero)

Market value of underlying instrument/position: value of currency to be acquired if option exercised, converted at the market exchange rate into currency to be sold.

Underlying position valued at the exercise/strike price: value of currency to be acquired if option exercised, converted at the exercise/strike price into currency to be sold.

Amount by which option is out of the money: difference between market value of underlying instrument and underlying position valued at the exercise price.

Mark-to-market value of the option: value of option in market.

Current value of option on the bank's books: this will reflect the valuation policy of the bank.

An option will be deemed to be "hedged" for the purposes of these calculations when the size of the offsetting underlying position matches the amounts into which the option is exercisable. Where the amount underlying the option is larger than the offsetting position the residual options will be treated as Naked Option Positions.