# Chapter 7

# Market risk

## 7.5 Foreign currency PRR

### General rule

**7.5.1** R A *firm* must calculate its *foreign currency PRR* by:

(1) identifying which *foreign currency* and gold *positions* to include in the *PRR* calculation;

(2) calculating the net open *position* in each currency in accordance with this section (including where necessary the *base currency* calculated in the same way as it is for *foreign currencies*) and in gold;

(3) calculating the *open currency position* for *foreign currencies* as calculated under BIPRU 7.5.19R and the net gold position (see BIPRU 7.5.20R); and

(4) multiplying the sum of the absolutes of that *open currency position* and that net gold *position* by 8%.

**7.5.2** G An example of the operation of BIPRU 7.5.1R is as follows. A *firm* has an *open currency position* of £100 and a net gold *position* of £50. The sum (ignoring the sign) is £150, and so the *foreign currency PRR* is £12.

### Scope of the foreign currency PRR calculation

**7.5.3** R A *firm's foreign currency PRR* calculation must include the following items regardless of whether they are *trading book* or *non-trading book positions*:

(1) all gold *positions*;

(2) all spot *positions* in *foreign currency* (that is, all asset items less all liability items, including accrued interest, in the *foreign currency* in question);

(3) all forward *positions* in *foreign currency*;

(4) all *CRD financial instruments* and other items which are denominated in a *foreign currency*;

(5) irrevocable guarantees (and similar instruments) that are certain to be called and likely to be irrecoverable to the extent they give rise to a *position* in gold or *foreign currency*; and

(6) notional *positions* arising from the instruments listed in the table in BIPRU 7.5.5R.

**7.5.4** R

(1) The following are excluded from a *firm's foreign currency PRR* calculation:

(a) *foreign currency* assets which have been deducted in full from the *firm's capital resources* under the calculations under the *capital resources table*;

(b) *positions* hedging (a);

(c) *positions* that a *firm* has deliberately taken in order to hedge against the adverse effect of the exchange rate on the ratio of its *capital resources* to its *capital resources requirement*; and

(d) transactions to the extent that they fully hedge net future *foreign currency* income or expenses which are known but not yet accrued.

(2) If a *firm* uses an exclusion under (1) it must:

(a) notify the *appropriate regulator* before it makes use of it;

(b) include in the notification in (a) the terms on which the relevant item will be excluded;

(c) not change the terms of the exclusion under (b); and

(d) document its policy on the use of that exclusion in its *trading book policy statement*.

(3) A *position* may only be excluded under (1)(b) or (c) if it is of a non-trading or structural nature.

**7.5.5** R

Table: instruments which result in notional foreign currency positions

This table belongs to ■ BIPRU 7.5.3R(6).

| Instruments | See |
|---|---|
| *Foreign currency futures*, *forwards*, *synthetic futures* and *CFDs* | BIPRU 7.5.11R |
| *Foreign currency swaps* | BIPRU 7.5.13R |
| *Foreign currency options* or *warrants* (unless the *firm* calculates a *PRR* on the *option* or *warrant* under BIPRU 7.6 (Option PRR)). | BIPRU 7.5.15R |
| Gold *futures*, *forwards*, *synthetic futures* and *CFDs* | BIPRU 7.5.16R |
| Gold *options* (unless the *firm* calculates a *PRR* on the *option* under BIPRU 7.6). | BIPRU 7.5.17R |
| *Positions* in *CIUs* | BIPRU 7.5.18R |

**7.5.6** G

*Firms* are reminded that the table in ■ BIPRU 7.6.5R (Table: Appropriate PRR calculation for an option or warrant) divides *foreign currency options* and *warrants* into:

(1) those which must be treated under ■ BIPRU 7.6 (Option PRR); and

(2) those which must be treated under either ■ BIPRU 7.5 or ■ BIPRU 7.6, the *firm* being able to choose whether ■ BIPRU 7.5 or ■ BIPRU 7.6 is used.

**7.5.7** R When determining the currency of denomination *firms* must:

(1) use the currency in which the *firm* accounts for the instrument where an instrument is quoted in more than one currency; and

(2) treat depository receipts as *positions* in the underlying *security*.

**7.5.8** G Instruments denominated in a foreign currency include, amongst other things, assets and liabilities (including accrued interest); non-*foreign currency derivative*; *net underwriting positions*; *reduced net underwriting positions*; and irrevocable guarantees (or similar instruments) that are certain to be called.

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**7.5.9** R Where a contract is based on a basket of currencies, the *firm* can choose either to derive notional *positions* in each of the constituent currencies or treat it as a single notional *position* in a separate notional currency.

## Derivation of notional positions: General

**7.5.10** G ■ BIPRU 7.5.11R - ■ BIPRU 7.5.18R derive notional currency *positions* for the instruments listed in the table in ■ BIPRU 7.5.5R.

## Derivation of notional positions: Foreign exchange forwards, futures, CFDs and synthetic futures

**7.5.11** R (1) A *firm* must treat a *foreign currency forward*, *future*, *synthetic future* or *CFD* as two notional currency *positions* as follows:

(a) a long notional *position* in the currency which the *firm* has contracted to buy; and

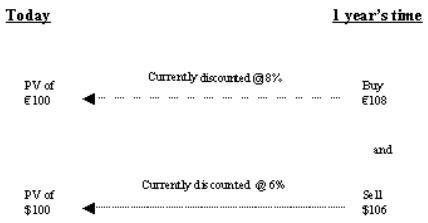
(b) a short notional *position* in the currency which the *firm* has contracted to sell.

(2) In (1) the notional *positions* have a value equal to either:

(a) the contracted amount of each currency to be exchanged in the case of a *forward*, *future*, *synthetic future* or *CFD* held in the *non-trading book*; or

(b) the present value of the amount of each currency to be exchanged in the case of a *forward*, *future*, *synthetic future* or *CFD* held in the *trading book*.

**7.5.12** G (1) The following example illustrates ■ BIPRU 7.5.11R. In this example, a *firm* contracts to sell $106 for €108 in one year's time and the present values of each cash flow are $100 and €100 respectively.




(2) In the *non-trading book*, this *forward* would be treated as a combination of a €108 long *position* and a $106 short *position*.

(3) In the *trading book*, this *forward* would be treated as a combination of a €100 long *position* and a $100 short *position*.

*(4) Firms* are reminded that *foreign currency forwards* held in the *trading book* should also be included in the *firm's interest rate PRR* calculation (see ■ BIPRU 7.2.4R (Instruments which result in notional *positions* for the purpose of the *interest rate PRR*)).

## Derivation of notional positions: Foreign currency swaps

**7.5.13** R

(1) A *firm* must treat a *foreign currency swap* as:

(a) a long notional *position* in the currency in which the *firm* has contracted to receive interest and principal; and

(b) a short notional *position* in the currency in which the *firm* has contracted to pay interest and principal.

(2) In (1) the notional *positions* have a value equal to either:

(a) the nominal amount of each currency underlying the *swap* if it is held in the *non-trading book*; or

(b) the present value amount of all cash flows in the relevant currency in the case of a *swap* held in the *trading book*.

**7.5.14** G

(1) The following example illustrates ■ BIPRU 7.5.13R. In this example a *firm* enters into a five year *foreign currency swap* where it contracts to pay six month US$ Libor on $100 in return for receiving 6% fixed on €100. The present values of each leg are $100 and €98 respectively.

(2) In the *non-trading book*, this *swap* would be treated as a combination of a €100 long *position* and a $100 short *position*.

(3) In the *trading book*, this *swap* would be treated as a combination of a €98 long *position* and a $100 short *position*.

*(4) Firms* are reminded that *foreign currency swaps* held in the *trading book* should also be included in the *firm's interest rate PRR* calculation (see ■ BIPRU 7.2.4R (Instruments which result in notional *positions* for the purpose of the *interest rate PRR*)).

## Derivation of notional positions: Foreign currency options and warrants

7.5.15 R Where included in ■ BIPRU 7.5's *PRR* calculation (see the table in ■ BIPRU 7.5.5R), a *foreign currency option* or *warrant* must be treated as a *foreign currency forward*.

## Derivation of notional positions: Gold forwards, futures, synthetic futures and CFDs

7.5.16 R A *forward*, *future*, *synthetic future* or *CFD* on gold must be treated as a notional *position* in gold with a value equal to the amount of gold underlying multiplied by the current spot price for gold.

## Derivation of notional positions: Gold options

7.5.17 R If included in the *PRR* calculation under ■ BIPRU 7.5 (see the table in ■ BIPRU 7.5.5R), a gold *option* must be treated as a gold *forward*.

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## Derivation of notional positions: CIUs

7.5.18 R
(1) This *rule* deals with *positions* in *CIUs*.

(2) The actual *foreign currency positions* of a *CIU* must be included in a *firm's foreign currency PRR* calculation under ■ BIPRU 7.5.1 R.

(3) A *firm* may rely on third party reporting of the *foreign currency positions* in the *CIU*, where the correctness of this report is adequately ensured.

(4) If a *firm* is not aware of the *foreign currency positions* in a *CIU*, the *firm* must assume that the *CIU* is invested up to the maximum extent allowed under the *CIUs* mandate in *foreign currency* and the *firm* must, for *trading book positions*, take account of the maximum indirect exposure that it could achieve by taking leveraged *positions* through the *CIU* when calculating its *foreign currency PRR*. This must be done by proportionally increasing the *position* in the *CIU* up to the maximum exposure to the underlying investment items resulting from the investment mandate.

(5) The assumed *position* of the *CIU* in *foreign currency* calculated in accordance with ■ BIPRU 7.5.18R(4) must be treated as a separate currency according to the treatment of investments in gold, subject to the modification that, if the direction of the *CIUs* investment is available, the total long *position* may be added to the total long open *foreign currency position* and the total short *position* may be added to the total short open *foreign currency position*. No netting is allowed between such *positions* prior to this calculation.

## Open currency position

7.5.19 R A *firm* must calculate its *open currency position* by:

(1) calculating the net *position* in each *foreign currency*;

(2) converting each such net *position* into its *base currency* equivalent at current spot rates;

(3) summing all short net *positions* and summing all long net *positions* calculated under (1) and (2); and

(4) selecting the larger sum (ignoring the sign) from (3).

## Net gold position

7.5.20 R A *firm* must calculate its net gold *position* by:

(1) valuing all gold *positions* using the prevailing spot price for gold (regardless of the maturity of the *positions*);

(2) offsetting long and short *positions*; and

(3) converting the resulting net *position* into the *base currency* equivalent using the current spot *foreign currency* rate.