

a = NZD 1,886,792
 b = NZD 1,794,003
 c = NZD 1,795,332
 d = NZD 1,739,130

whence—

$(a - b) - (c - d) = \text{NZD } 36,587$ which, being a positive amount, would be expenditure incurred.

**EXAMPLE B: BUYER OF BASE CURRENCY;
 APPRECIATING NON-BASE CURRENCY**

(a) A New Zealand corporate borrower enters into a long term forward foreign exchange contract to sell 1 million US dollars (USD) against purchase of New Zealand dollars (NZD) in three years time. The contract was entered into on 30 April 1988 and the corporate has a balance date of 30 June. The contract forward rate is 0.5300 USD to 1 NZD, so settlement will require purchase of NZD 1,886,792.

The corporate chooses NZD as the base currency for this contract.

Suppose that over the term of the contract the spot USD/NZD rates are:

	Spot USD/NZD price	Spot Value in NZD
30 April 1988	0.6350	1,574,803
30 June 1988	0.6200	1,612,903
30 June 1989	0.5940	1,683,502
30 June 1990	0.5750	1,739,130
30 April 1991	0.5570	1,795,332

Using Method A of Determination G10: Present Value Calculation Methods, at yearly intervals, the annual yield to maturity rate is 6.210% p.a., at which rate the present value of NZD 1,886,792 payable on 30 April 1991 is equal to NZD 1,574,803, the spot value on 30 April 1988.

(b) The present values of NZD 1,886,792 at the three subsequent balance dates are as follows:—

	Present Value in NZD	Notes
30 June 1988	1,590,349	(3)
30 June 1989	1,689,110	(2)
30 June 1990	1,794,003	(1)

Notes:

(1) Discount by the 304 days from 30 April 1991 to 30 June 1990—

$$1,886,792 / (1 + 0.06210 \times 304/365) = 1,794,003$$

(2) Discount by a further year to 30 June 1989—

$$1,794,003 / (1 + 0.06210) = 1,689,110$$

(3) And by a further year to 30 June 1988—

$$1,689,110 / (1 + 0.06210) = 1,590,349$$

The following schedule sets out the calculations. Since the corporate is a purchaser of the base currency, positive amounts are income derived and negative amounts are expenditure incurred:—

Income Year ending 30 June	a	b	c	d	Amount = (a-b)-(c-d) in NZD
1988	1,590,349	1,574,803	1,612,903	1,574,803	-22,554 E
1989	1,689,110	1,590,349	1,683,502	1,612,903	28,162 I
1990	1,794,003	1,689,110	1,739,130	1,683,502	49,265 I

I = Income derived; E = Expenditure incurred

(c) In the 30 June 1991 income year, the Base Price Adjustment given in section 64F is calculated by applying the formula:

$$a - (b + c)$$

where—

a = Consideration paid or payable to the holder (section 64F (2))
 = 1,886,792
 b = Acquisition price

= consideration provided by the holder (section 64BA (1) (d) and (2))
 = 1,795,332

c = Income already — Expenditure already incurred
 = 77,427 - 22,554
 = 54,873

Therefore, the Base Price Adjustment

$$= a - (b + c) \\ = \text{NZD } 36,587$$

and since this is positive, the amount of NZD 36,587 is deemed to be income derived (section 64F (4) (a)).

Note that in the final 30 June 1991 income year, the formula set out in this determination would have given the same result, since—

a = NZD 1,886,792
 b = NZD 1,794,003
 c = NZD 1,795,332
 d = NZD 1,739,130

whence—

$(a - b) - (c - d) = \text{NZD } 36,587$ which, being a positive amount, would be income derived.

**EXAMPLE C: SELLER OF BASE CURRENCY;
 DEPRECIATING NON-BASE CURRENCY**

(a) A New Zealand corporate borrower enters into a long term forward foreign exchange contract to sell 1 million US dollars (USD) against purchase of New Zealand dollars (NZD) in three years time. The contract was entered into on 30 April 1988 and the corporate has a balance date of 30 June. The contract forward rate is 0.5300 USD to 1 NZD, so settlement will require purchase of NZD 1,886,792.

The corporate chooses USD as the base currency for this contract.

Suppose that over the term of the contract the spot USD/NZD rates are:

	Spot USD/NZD price	Spot Value in USD
30 April 1988	0.6350	1,198,113
30 June 1988	0.6200	1,169,811
30 June 1989	0.5940	1,120,754
30 June 1990	0.5750	1,084,905
30 April 1991	0.5570	1,050,943

Using Method A of Determination G10: Present Value Calculation Methods, at yearly intervals, the annual yield to maturity rate is -5.847% p.a., at which rate the present value of USD 1,000,000 payable on 30 April 1991 is equal to USD 1,198,113, the spot value on 30 April 1988.

(b) The present values of USD 1,000,000 at the three subsequent balance dates are as follows:

	Present Value in USD	Notes
30 June 1988	1,185,805	(3)
30 June 1989	1,116,471	(2)
30 June 1990	1,051,191	(1)

Notes:

(1) Discount by the 304 days from 30 April 1991 to 30 June 1990—

$$1,000,000 / (1 - 0.05847 \times 304/365) = 1,051,191$$

(2) Discount by a further year to 30 June 1989—

$$1,051,191 / (1 - 0.05847) = 1,116,471$$

(3) And by a further year to 30 June 1988—

$$1,116,471 / (1 - 0.05847) = 1,185,805$$

The following schedule sets out the calculations. Since the corporate is vendor of the base currency, positive amounts are expenditure incurred and negative amounts are income derived:—