- (ii) Where the cashflow is converted to New Zealand currency on the day it is paid or received, the rate of exchange obtained in relation to the cashflow.
- (c) Where a buy and sell rate for a spot contract is not quoted on a multicontributor page, the rate for the spot contract shall be the cross rate calculated by reference to—
  - (i) The rate quoted on a multicontributor page for the foreign currency against the United States Dollar; and
  - (ii) The rate quoted on a multicontributor page for the United States Dollar against the New Zealand Dollar.
- (4) Forward Contracts—Where, for the purposes of determining the income or expenditure of a person in respect of a financial arrangement, it is necessary to determine the rate for a forward contract at the end of the income year, and—
  - (a) Where the buy and sell points for the forward contract are quoted on a multicontributor page, the rate for the forward contract shall be the midpoint between the buy and sell rates for that forward contract obtained by reference to the multicontributor page;
  - (b) Where the buy and sell points for the forward contract are not quoted on a multicontributor page, but the buy and sell points for similar forward contracts of shorter term ("the shorter contract") and of longer term ("the longer contract") are quoted on a multicontributor page, then the rate shall be the rate obtained by reference to the multicontributor page using straight line interpolation of the midpoints between the buy and sell rates for the shorter contract and the longer contract which have terms closest to the term of the forward contract;
  - (c) Where the rate cannot be obtained by reference to points on a multicontributor page and where the rate for that forward contract is available by reference to contributor pages, then the rate shall be the arithmetic mean of the midpoints of not less than 3 buy and sell rates for the forward contract obtained from contributor pages; and
  - (d) Where the rate cannot be obtained by reference to paragraphs 6 (4) (a) to (c) of this determination, the rate shall be the arithmetic mean of not less than three rates being any of—
    - (i) the midpoints of the buy and sell rates quoted for the forward contract by one or more approved foreign exchange dealers; or
    - (ii) where the points for similar forward contracts of shorter term ("the shorter contract") and of longer term ("the longer contract") are quoted on a contributor page, then the rate shall be the rate obtained by reference to the contributor page using straight line interpolation of the midpoints between the buy and sell rates for the shorter contract and the longer contract which have terms closest to the forward contract.
- (5) A person applying paragraphs 6 (3) (a) or 6 (4) of this Determination may obtain the rate for a spot contract or forward contract using the method prescribed in those paragraphs at any time on the last day of the income year:

## Provided that—

- (a) The rate applied is the rate obtained at the cut-off time in relation to the person and the income year; and
- (b) The method for determining the cut-off time adopted by that person is consistently applied in respect of each income year:

Provided further that where there is no market at the cut-off time, the rate shall be—

- (c) The rate obtained at the later of-
  - (i) The end of trading in forward contracts or spot contracts by that person in the income year:

- (ii) 3.00 p.m. New Zealand Standard Time on the last day in the income year on which there was a market; or
- (d) The rate for the earlier of—
  - (i) The commencement of trading in forward contracts or spot contracts by that person in the following income year:
  - (ii) 7.30 a.m. New Zealand Standard Time on the first day in the following income year on which there was a market
- 7. Example—This is an example of the application of the averaging process and straight line interpolation required for certain forward foreign exchange contracts under the determination.

On its balance date of 30 June 1991 a New Zealand corporate had a forward foreign exchange contract for delivery of 1.2 million New Zealand Dollars for 612,000 United States Dollars on 1 August 1992.

The contract therefore is to be fulfilled in approximately 13 months time.

At the balance date the foreign exchange quotations for the New Zealand Dollar against the United States Dollar were (from the multicontributor page ASAP on the Reuters system):

Also at that date the quotations of forward foreign exchange points for the United States Dollar against the New Zealand Dollar by three market participants were (as provided on their Reuters screens):

Forward Points FX Dealer 1: 585 Delivery in 1 year 555 Delivery in 2 years 1030 960 FX Dealer 2: Delivery in 1 year 580 530 1040 970 Delivery in 2 years FX Dealer 3: Delivery in 1 year 575 540

Delivery in 2 years

Note that to obtain the forward rates the forward points need to be subtracted from the spot rate.

1035

965

The mid-rates for use in the interpolation formula are therefore:

|   | Buy              | Sell             | Mid-Rate           |
|---|------------------|------------------|--------------------|
| Forward Rate<br>FX Dealer 1:                              |                  |                  |                    |
| Delivery in 1 year  | 0.5510           | 0.5545           | 0.55275            |
| Delivery in 2 years                                       | 0.5065           | 0.5140           | 0.51025            |
| FX Dealer 2: Delivery in 1 year Delivery in 2 years       | 0.5515<br>0.5055 | 0.5570<br>0.5130 | 0.55425<br>0.50925 |
| FX Dealer 3:<br>Delivery in 1 year<br>Delivery in 2 years | 0.5520<br>0.5060 | 0.5560<br>0.5135 | 0.55400<br>0.50975 |
|   |                  |                  | _                  |

The arithmetic mean of the midpoints of the forward rates is calculated to be:

Delivery in 1 year 0.55366
Delivery in 2 years 0.50975

A suitable formula for straight line interpolation to obtain the required rate is:

So Px = P1 + 
$$\frac{(Tx - T1)}{(T2 - T1)}$$
 (P2 - P1)

- P1 is the mid-rate for the forward contract with the shorter term (= 0.55366).
- P2 is the mid-rate for the forward contract with the longer term (= 0.50975).