Determination G9C: Financial arrangements that are denominated in a currency other than New Zealand dollars: an expected value approach

This determination may be cited as "Determination G9C: Financial arrangements that are denominated in a currency other than New Zealand dollars: an expected value approach".

This determination cancels and replaces Determination G9B: Financial arrangements that are denominated in a currency other than New Zealand dollars: an expected value approach.

1. Explanation (which does not form part of the determination)

When do you use this determination?

This determination applies to financial arrangements where the rights and obligations under the financial arrangement are fixed or otherwise determined in a currency other than NZD, including variable rate financial arrangements that are denominated in a currency other than NZD.

However, this determination only applies to financial arrangements where the payment dates are known not later than your first balance date after you become a party to the financial arrangement, and forward rates for the currency in which the financial arrangements are denominated can be determined.

You must use this determination for the 2003–04 income year and a financial arrangement for which this determination applies if—

- you are not a member of a group of companies and, on or before the day that is the earlier of 31 July 2004 and the end of your accounting period that corresponds to the 2003–04 income year, you give to the Commissioner notice in writing that you elect—
  - (a) to use this determination; and
  - (b) to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*;
- you are a member of a group of companies and, on or before the day that is the earlier of 31 July 2004 and the earliest day that is the end of an accounting period that corresponds to the 2003–04 income year for a member of the group, the members of the group give to the Commissioner notice in writing of an election—
  - (a) to use this determination; and
  - (b) to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

You must use this determination for the 2004–05 income year and a financial arrangement for which this determination applies if—

- you entered the financial arrangement after the date of this determination and were required to make a return of your income or expenditure for the 2003–04 income year on the basis of this determination, *Determination G9B* or *Determination G14A: Forward contracts for foreign exchange and commodities: an expected value approach*;
- you are not a member of a group of companies and, on or before the day that is the later of 31 July 2004 and the 63rd day of your accounting period that corresponds to the 2004–05 income year, you give to the Commissioner notice in writing that you elect—
  (a) to use this determination; and
  (b) to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*;
- you are a member of a group of companies and, on or before the day that is the later of 31 July 2004 and the earliest day that is the 63rd day of an accounting period that corresponds to the 2004–05 income year for a member of the group, the members of the group give to the Commissioner notice in writing of an election—
  (a) to use this determination; and
  (b) to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

You must use this determination for an income year beginning after the 2004–05 income year and a financial arrangement for which this determination applies if—

- you entered the financial arrangement after the date of this determination and were required to make a return of your income or expenditure for the 2004–05 income year on the basis of this determination, *Determination G9B* or *Determination G14A: Forward contracts for foreign exchange and commodities: an expected value approach*;
- you entered the financial arrangement before the date of this determination and you have made a return of your income or expenditure for an earlier income year and the financial arrangement on the basis of *Determination G9B* and are required under section 90 or sections 90AC and 90AE of the Tax Administration Act 1994 to make a return for the income year and the financial arrangement under this determination;
- you are not a member of a group of companies and, on or before the day that is the 63rd day of your accounting period that corresponds to the income year, you give to the Commissioner notice in writing that you elect—
  (a) to use this determination; and
  (b) to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*;
- you are a member of a group of companies and, on or before the earliest day that is the 63rd day of an accounting period that corresponds to the income year for a member of the group, the members of the group give to the Commissioner notice in writing of an election—
  (a) to use this determination; and
  (b) to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

You may not use this determination for an income year unless you are required to do so by the above paragraphs.

What methods can be used to calculate income or expenditure in relation to a financial arrangement that comes within the scope of this determination?

Expected Value Approach

This determination sets out an expected value approach to calculate gross income or expenditure from a financial arrangement where any rights and obligations of the parties are expressed in a base currency other than NZD. This base currency might be a foreign currency or a commodity. This expected value approach can only be used for financial arrangements within the scope of this determination, which is narrower than *Determination G9A: Financial Arrangements that are Denominated in a Currency or Commodity other than New Zealand Dollars*. If you are required to use this determination, you must not use *Determination G9A* for any such financial arrangement, and you must not use *Determination G14: Forward Contracts for Foreign Exchange and Commodities* for any forward contract within the scope of *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

Mark to Spot Approach

You can use *Determination G9A: Financial Arrangements that are Denominated in a Currency or Commodity other than New Zealand Dollars* to calculate gross income or expenditure of any financial arrangement within the scope of this determination if you are not required to use this determination or *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

Alternatively, you may use the mark to market method if you satisfy the requirements of section EH 1(6) of the Act or the market valuation method if you satisfy the requirements of section EH 36 of the Act.

You may also use a method allowed by the proviso to section EH 1(6) of the Act or by section EH 38(2) of the Act.

How do I use the method set out in this determination?

Under this method, the gross income or expenditure from a financial arrangement where the rights and obligations of the parties are expressed in a base currency other than NZD is the total of an expected component and an unexpected component.

To apply this method to a financial arrangement for the income year in which you enter the financial arrangement, you must—

- determine the expected component by taking into account all the base currency payments and payment dates in relation to the financial arrangement when you become a party to the financial arrangement; and

- use the initial interest rate to calculate the base currency payments under a variable rate financial arrangement denominated in a base currency other than NZD, and assume that this rate will apply throughout the term of the financial arrangement; and
- translate the base currency payments into expected NZD payments on the basis of the forward rates available at the time you become a party to the financial arrangement; and
- spread the expected NZD net amount under the yield to maturity method and allocate it to each income year over the term of the financial arrangement on a daily basis; and
- measure the unexpected component at the end of each balance date as the difference between actual and expected NZD payments.

To apply this method for the first time to a financial arrangement for an income year after the income year in which you enter the financial arrangement, you must calculate the gross income or expenditure of the financial arrangement as set out above, except that you must—
- in determining the expected component of the gross income or expenditure, use actual NZD payments up to the income year for which you first use this determination for the financial arrangement and expected NZD payments for the remaining term of the financial arrangement; and
- in calculating the expected NZD payments, use the relevant forward rates as at the end of the income year for which you first use this determination for the financial arrangement.

You must also calculate a transition allowance for a financial arrangement to which you apply the method for the first time for an income year that is after the income year in which you enter the financial arrangement.

How do I elect to use the method outlined in this determination?

Election for 2003–04 and subsequent income years

If you are not a member of a group of companies, you may elect to use this determination for the 2003–04 and subsequent income years by giving a notice of election to the Commissioner on or before the day that is the earlier of 31 July 2004 and the day that is the end of your accounting period for the 2003–04 income year. The notice must be in writing and elect—
- to use this determination; and
- to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

If you are a member of a group of companies, you may elect to use this determination for the 2003–04 and subsequent income years by giving, together with all other members of the group, a notice of election to the Commissioner on or before the day that is the earlier of 31 July 2004 and the earliest day that is the end of an accounting period for the 2003–04 income year for a member of the group. The notice must be in writing and elect—

- to use this determination; and
- to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

Election for 2004–05 and subsequent income years

If you are not a member of a group of companies, you may elect to use this determination for the 2004–05 and subsequent income years by giving a notice of election to the Commissioner on or before the day that is the later of 31 July 2004 and the 63rd day of your accounting period for the 2004–05 income year. The notice must be in writing and elect—

- to use this determination; and
- to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

If you are a member of a group of companies, you may elect to use this determination for the 2004–05 and subsequent income years by giving, together with all other members of the group, a notice of election to the Commissioner on or before the day that is the later of 31 July 2004 and the earliest day that is the 63rd day of an accounting period for the 2004–05 income year for a member of the group. The notice must be in writing and elect—

- to use this determination; and
- to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

Election for income years beginning after 2004–05 income year

If you are not a member of a group of companies, you may elect to use this determination for an income year beginning after the 2004–05 income year, and for subsequent income years, by giving a notice of election to the Commissioner on or before the day that is the 63rd day of your accounting period for the income year. The notice must be in writing and elect—

- to use this determination; and
- to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

If you are a member of a group of companies, you may elect to use this determination for an income year beginning after the 2004–05 income year, and for subsequent income years, by giving, together with all other members of the group, a notice of election to the Commissioner on or before the earliest day that is the 63rd day of an accounting period for the income year for a member of the group. The notice must be in writing and elect—

- to use this determination; and
- to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

How do I calculate the transitional adjustment?

A transitional adjustment must be made for the first income year for which you are required to use this determination for a forward contract if you entered the forward contract before the income year and you have not been required to apply *Determination G9B* for the forward contract. The calculation is comparable to *Determination G25: Variations in the Terms of a Financial Arrangement*.

The transitional adjustment requires that for the income year of the adjustment you treat as gross income or expenditure the difference between the total amount that would have been gross income or expenditure calculated as described in this determination and the total amount actually recognised over the previous income years.

How is income or expenditure calculated in the year the financial arrangement matures or is disposed of?

Regardless of which method you choose to use, you must calculate income or expenditure using the base price adjustment in whichever of section EH 4 and section EH 47 of the Act is applicable to the financial arrangement.

Miscellaneous issues

This determination requires that where a financial arrangement involves or is expressed in more than one currency or commodity, each separate currency or commodity tranche is to be treated as a separate financial arrangement.

Where a facility provides for the rollover of a financial arrangement, the financial arrangement matures when the rollover occurs. Section EH 4 or section EH 47 of the Act applies in the income year the rollover occurs. Any payment arising from the rollover of a financial arrangement will be taken into account under section EH 4 or section EH 47 of the Act unless the payment is related to a separate financial arrangement.

2. Reference

This determination is made pursuant to section 90(1)(c) and 90AC(1)(d) of the Tax Administration Act 1994.

3. Scope

(1) This determination applies to the calculation of gross income or expenditure from a financial arrangement, to the extent that any right or obligation under the financial arrangement is fixed or otherwise determined in a currency other than NZD and is not fixed in NZD. The payment dates under the financial arrangement must be known not later than your first balance date after you become a party to the financial arrangement.

(2) This determination does not apply to—

(a) a futures contract;

(b) a security arrangement;

(c) a financial arrangement denominated in a currency where the forward rates of the currency cannot be determined;

(d) any financial arrangements covered by the following determinations:
Determination G14: Forward Contracts for Foreign Exchange and Commodities;
Determination G19: Exchange Traded Option Contracts;
Determination G20: Discounted Value of Amounts Payable in Relation to Trade Credits Denominated in a Foreign Currency;
Determination G21: Discounted Value of Amounts Payable in Relation to Deferred Property Settlements Denominated in a Foreign Currency;
Determination G21A: Agreements for Sale and Purchase of Property Denominated in Foreign Currency: Discounted Value of Amounts Payable;
Determination G27: Swaps;
Determination G29: Agreements for Sale and Purchase of Property Denominated in Foreign Currency: Exchange Rate to Determine the Acquisition Price and Method for Spreading Income and Expenditure;
except as specifically allowed by those determinations.

(3) You must use this determination for an income year for a financial arrangement that satisfies subparagraphs (1) and (2) above if—

(a) the income year is the 2003–04 income year and—
- (i) you are not a member of a group of companies and make an election, as described in subparagraph (4) below, that applies for the 2003–04 income year;
- (ii) you are a member of a group of companies that makes an election, as described in subparagraph (4) below, that applies for the 2003–04 income year;

(b) the income year is after the 2003–04 income year and—
- (i) you are not a member of a group of companies and make an election, as described in subparagraph (4) below, that applies for the income year;
- (ii) you are a member of a group of companies that makes an election, as described in subparagraph (4) below, that applies for the income year;
- (iii) you entered the financial arrangement after the date of this determination and have been required to use this determination, *Determination G9B* or *Determination G14A* for an earlier income year;
- (iv) you entered the financial arrangement before the date of this determination and have used *Determination G9B* for an earlier income year and the financial arrangement and are not excluded from the application of this determination for the income year and the financial arrangement by section 90(6) or 90AE of the Tax Administration Act 1994.

(4) An election to use this determination must—

(a) be made in writing to the Commissioner; and

(b) include an election to use *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*; and

(c) if you are not a member of a group of companies, be made—

    (i) on or before the day that is the earlier of 31 July 2004 and the end of your accounting period that corresponds to the 2003–04 income year, if the election is to apply for the 2003–04 and subsequent income years;

    (ii) on or before the day that is the later of 31 July 2004 and the 63rd day of your accounting period that corresponds to the 2004–05 income year, if the election is to apply for the 2004–05 and subsequent income years;

    (iii) on or before the day that is the 63rd day of your accounting period that corresponds to the income year, if the election is to apply for an income year that is after the 2004–05 income year and for subsequent income years; and

(d) if you are a member of a group of companies, be made by all the members of the group and—

    (i) on or before the day that is the earlier of 31 July 2004 and the earliest day that is the end of an accounting period that corresponds to the 2003–04 income year for a member of the group, if the election is to apply for the 2003–04 and subsequent income years;

    (ii) on or before the day that is the later of 31 July 2004 and the earliest day that is the 63rd day of an accounting period that corresponds to the 2004–05 income year for a member of the group, if the election is to apply for the 2004–05 and subsequent income years;

    (iii) on or before the earliest day that is the 63rd day of an accounting period that corresponds to the income year for a member of the group, if the election is to apply for an income year that is after the 2004–05 income year and for subsequent income years.

(5) If you must use this determination, you may not use—

(a) *Determination G9A: Financial Arrangements that are Denominated in a Currency or Commodity other than New Zealand Dollars* to calculate gross income or expenditure of any financial arrangement that is within subparagraphs (1) and (2) above;

(b) *Determination G14: Forward Contracts for Foreign Exchange and Commodities* to calculate gross income or expenditure of any forward contract that is within the scope of *Determination G14B: Forward contracts for foreign exchange and commodities: an expected value approach*.

(Note: A determination to which *Determination G9C* refers may be changed or rescinded by a new determination made by the Commissioner. In such a case, a reference to the old determination is extended to the new determination.)

4. Principle

(1) If you are a party to a financial arrangement to which this determination applies, the gross income or expenditure in respect of the financial arrangement is calculated by taking into account all amounts arising from the fluctuations of exchange rates or commodity prices.

(2) The gross income or expenditure from the financial arrangement is the total of an expected component and an unexpected component.

(3) If you must apply this determination to a financial arrangement for the income year in which you enter the financial arrangement, you must measure the expected component as at the time you enter the financial arrangement. You must also recognise the unexpected component when it is realised.

(4) To measure the expected component you must convert the base currency payments into expected NZD payments on the basis of forward rates at the time you enter the financial arrangement and spread the expected NZD net amount over the term of the financial arrangement.

(5) You must measure the unexpected component as the difference between the actual NZD payments and the expected NZD payments.

(6) If you must apply this determination for the first time to a financial arrangement for an income year that is after the income year in which you enter the financial arrangement, and you have not applied *Determination G9B* for the financial arrangement, you must measure the expected component as at the end of the income year. You must follow the principle set out above by calculating the expected NZD net amount using actual NZD payments up to the end of the income year in which you first apply the determination and the forward rates at the end of that income year.

(7) Again, you must recognise the unexpected component when it is realised.

Transitional adjustment

(8) For the first income year for which you must use this determination, you must perform the transitional adjustment calculation to calculate gross income or expenditure for all financial arrangements—
(a) that you entered before the income year; and
(b) for which you have not been required to use *Determination G9B*.

(9) This adjustment ensures that the gross income or expenditure up to the end of the income year in which you first use this determination is equal to that that would have been returned if the actual NZD payments and the forward rates, as described in subparagraph (4), and this determination had been used since you became a party to the financial arrangement.

5. Interpretation

(1) In this determination, a reference to the **Act** is a reference to the Income Tax Act 1994.

(2) In this determination—
base currency in relation to a financial arrangement means the currency or commodity in which rights and obligations under the financial arrangement are fixed

covered interest parity means the proposition that the differential between forward and spot exchange rates is equal to the interest differentials. That is, the forward rate for a foreign currency exchange at time t for 1 period ahead is equivalent to the spot rate at time t, S_t, multiplied by 1 plus the foreign interest rate, i_f, divided by 1 plus the domestic interest rate, i_d. Forward rates at time t for n periods, $Fwd_{t,n}$, can thus be derived based on the principle of covered interest parity as—

$$Fwd_{t,n} = S_t \times \frac{(1 + i_f)^n}{(1 + i_d)^n}$$

currency includes any commodity used as a medium of exchange or account, whether in general use or for the purpose of an arrangement

exchange rate means the price of 1 currency expressed in another currency

financial arrangement has the same meaning as in the Act:
Provided that, where a financial arrangement creates obligations in 2 or more currencies or commodities and the consideration to be given and received in respect of the obligations in each of the currencies is separately identifiable, the consideration to be given and received in respect of the obligations in each currency will be treated as relating to separate financial arrangements

floating rate arrangement means a financial arrangement where the interest rate is reset periodically according to a predetermined formula, linking the interest rate to an indicator rate such as the bank bill or interbank rate

forward rate means the exchange rate for a forward contract as defined in *Determination G6D: Foreign Currency Rates* or the forward exchange rate calculated using the principle of covered interest parity or other methods that are commercially acceptable. In the case where the base currency is a commodity, the forward rate is the future value of the commodity (in NZD)

future value in relation to a commodity and a future date means the value of the commodity at the future date, on a given date, derived from any commercially acceptable, market-based method of valuation

GBP means the currency of the United Kingdom

initial interest rate in relation to a financial arrangement means the interest rate that applies to the first period after the date of issue or acquisition of the financial arrangement

interest means any periodic payment in relation to the financial arrangement, to the extent intended to provide a return to the lender on the sums provided to the borrower. It does not include fees, discounts, premiums, or payments effecting a reduction of principal

NZD means the currency of New Zealand

period means a term commencing immediately after a payment is payable or receivable, and ending when the next payment is payable or receivable

reviewable rate arrangement means a financial arrangement where the interest rate is set periodically in line with market rates

spot rate means the exchange rate for a spot contract as defined in *Determination G6D: Foreign Currency Rates* or in the case of a commodity, the spot value (in NZD) of the commodity

spot value in relation to a commodity and a day means the value of the commodity on that day derived from any commercially acceptable method of valuation

USD means the currency of the United States of America

variable rate financial arrangement means a floating rate arrangement or a reviewable rate arrangement.

(3) All other terms used have the meaning given to them for the purpose of the Act.

6. Method

(1) Your gross income or expenditure in an income year from a financial arrangement under this determination is the total of—

(a) the expected component, calculated in accordance with subparagraphs (2) to (5); and

(b) the unexpected component, calculated in accordance with subparagraph (6).

(2) If the first income year for which you are required to apply this determination to a financial arrangement is the income year in which you become a party to the financial arrangement, you must calculate the expected component for each income year of the remaining term of the financial arrangement as at the time you become a party to the financial arrangement. The expected component is calculated by first taking into account all base currency payments in relation to the financial arrangement.

(3) You must calculate the base currency payments of a variable rate financial arrangement denominated in a currency other than NZD using the initial interest rate and assuming that this rate will apply throughout the term of the financial arrangement.

(4) You must convert the base currency payments into NZD using forward rates as at the time you became a party to the financial arrangement.

(5) You must spread the expected NZD net amount using the yield to maturity method consistent with *Determination G3* and, where necessary, allocate it to the income year on the basis of *Determination G1A*. This will give the expected component for each income year.

(6) You must calculate and recognise the unexpected component for each income year. The unexpected component is the difference between the actual NZD value of the payments during the year and the expected NZD value of those payments as calculated under subparagraph (4).

(7) If the first income year for which you are required to apply this determination to a financial arrangement is after the income year in which you entered the financial arrangement, and you have not been required to use *Determination G9B* for the financial arrangement, you must follow the method set out in subparagraphs (1) to (6) to calculate gross income or expenditure of the financial arrangement, except that—

(a) the NZD net amount to be spread under subparagraph (5) consists of—
  - (i) actual NZD payments that have occurred since you became a party to the financial arrangement until the end of the first income year for which you must use this determination;
  - (ii) expected NZD payments in the remaining term of the financial arrangement; and

(b) the expected NZD payments in the remaining term of the financial arrangement must be calculated on the basis of the forward rates available at the end of the first income year for which you must use this determination for the financial arrangement.

Transitional adjustment for existing financial arrangements

(8) You must perform a transitional adjustment calculation for the first income year for which you must use this determination to calculate gross income or expenditure of any financial arrangement if you entered the financial arrangement before the income year and have not been required to apply *Determination G9B* to the financial arrangement. You must perform the transitional adjustment calculation for each such financial arrangement in accordance with the following formula:

$$a - b - c + d$$

where—

a is the sum of all amounts that would have been income in respect of the financial arrangement from the time it was entered into until the end of the income year, if this determination had applied from the time you became a party to the financial arrangement

b is the sum of all amounts that would have been expenditure in respect of the financial arrangement from the time it was entered into until the end of the income year, if this determination had applied from the time you became a party to the financial arrangement

c is the sum of all income in respect of the financial arrangement since it was acquired until the end of the previous income year

d is the sum of all expenditure in respect of the financial arrangement since it was acquired until the end of the previous income year.

A positive net amount is gross income while a negative net amount is gross expenditure in the first income year for which you must use this determination.

7. Examples

(1) A New Zealand investor holds a United States Treasury Bond on its balance date of 30 June 2005. The bond has a term of 5 years and bears 10% interest payable semi-annually on 1 September and 1 March. It has a face value of USD $10,000,000. The bond was purchased at issue for USD $8,300,000 and matures on 1 September 2009.

(2) The New Zealand investor has to calculate the expected NZD net amount on the basis of forward rates available at the time it becomes a party to the financial arrangement. It then has to spread and allocate the expected NZD net amount to the income years over the term of the financial arrangement in accordance with *Determination G3* and *Determination G1A*. In each of those income years, the investor also has to determine the unexpected component of the gross income or expenditure. The unexpected component is measured as the difference between the actual NZD payments and the expected NZD payments.

Further examples are provided in the schedule.

Signed on the 3rd day of June 2004.

Robin Oliver
General Manager, Policy

Schedule: Further examples

Note: In each example involving a base price adjustment, the base price adjustment is calculated on the assumption that the financial arrangement is subject to Division 2 of Part EH of the Act. The details of the calculation would differ for a financial arrangement that was subject to Division 1 of Part EH of the Act.

Example A: Discounted bond

A NZ investor holds a United States Treasury Bond on its balance date of 30 June 2005. The bond has a term of 5 years and bears 10% interest payable semi-annually on 1 September and 1 March. It has a face value of USD $10,000,000. The bond was purchased at issue for USD $8,300,000 and matures on 1 September 2009.

The following table presents the spot rates at the relevant dates and the forward rates at the time of contract out to the relevant dates. The forward rates were estimated based on the principle of covered interest parity using the interest rates in the US (US,I), the domestic interest rates (NZ,I) and the spot rate at the time of contract. In this simple example the (US,I) and the (NZ,I) were assumed to be 10% per annum and 8% per annum, respectively, and they remain constant throughout the entire period (assuming a horizontal yield curve so that a 6-month bond and a 5-year bond have the same rate).

Date	Spot	Fwd (0,t)	US,I	NZ,I
1-Sep-04	0.6310	0.6310	0.05	0.04
1-Mar-05	0.6455	0.6371	0.05	0.04
1-Sep-05	0.6500	0.6432	0.05	0.04
1-Mar-06	0.6550	0.6494	0.05	0.04
1-Sep-06	0.6570	0.6556	0.05	0.04
1-Mar-07	0.6580	0.6619	0.05	0.04
1-Sep-07	0.6400	0.6683	0.05	0.04
1-Mar-08	0.6380	0.6747	0.05	0.04
1-Sep-08	0.6150	0.6812	0.05	0.04
1-Mar-09	0.6150	0.6878	0.05	0.04
1-Sep-09	0.6150	0.6944	0.05	0.04

At the time of contract – 1 September 2004

Given the above assumptions, the payments in USD expected at the time of contract (see column (a)), could be converted to NZD based on the forward rates at each relevant date (see column (b)). The expected NZD net amount represents a yield of approximately 12% per annum over the 5-year period and the yield is spread in a way consistent with *Determination G3*. The value of NZD $848,432, for instance, is the expected component of the gross income for the NZ investor for the 6-month period ending 1 March 2005.

Date	(a) USD Cash	(b) Expected Cash (NZD)	(c) Expected Income
1-Sep-04	−8,300,000	−13,153,724	
1-Mar-05	500,000	784,846	848,432
1-Sep-05	500,000	777,372	852,533
1-Mar-06	500,000	769,968	857,381
1-Sep-06	500,000	762,635	863,020
1-Mar-07	500,000	755,372	869,494
1-Sep-07	500,000	748,178	876,855
1-Mar-08	500,000	741,052	885,155
1-Sep-08	500,000	733,995	894,450
1-Mar-09	500,000	727,004	904,800
1-Sep-09	10,500,000	15,121,690	916,268
	6,700,000	8,768,389	8,768,389
6-Month YTM	7%	6%	

When cash is subsequently received at the relevant dates, the NZD values of the payments are likely to differ from those expected at the contract date. Where the NZD values of these subsequent payments deviate from the expected NZD values, they give rise to unexpected component of the gross income or expenditure. For example, on 1 March 2005 the actual payment was NZD $774,593 while the expected payment was NZD $784,846. The discrepancy of NZD $10,253 is the unexpected component for the period ending 30 June 2005.

Date	Expected Cash (NZD)	Actual Cash (NZD)	Unexpected Income/ Expenditure
1-Sep-04	−13,153,724	−13,153,724	
1-Mar-05	784,846	774,593	−10,253
1-Sep-05	777,372	769,231	−8,141
1-Mar-06	769,968	763,359	−6,609
1-Sep-06	762,635	761,035	−1,600
1-Mar-07	755,372	759,878	4,506
1-Sep-07	748,178	781,250	33,072
1-Mar-08	741,052	783,699	42,647
1-Sep-08	733,995	813,008	79,013
1-Mar-09	727,004	813,008	86,004
1-Sep-09	15,121,690	17,073,171	1,951,480
	8,768,389		2,170,119

At the first balance date – 30 June 2005

There are 2 components to the income or expenditure for the financial arrangement in this income year: the gains expected at the contract date and the unexpected losses. The expected gains as summarised above are allocated to the income year in a way consistent with *Determination G1A*. Therefore, the gross income or expenditure for the year ended 30 June 2005 is—

($848,432) + (121/184 × $852,533) – $10,253
= $1,398,812

where NZD $1,398,812 is gross income of the NZ investor.

At the second balance date – 30 June 2006

The gross income or expenditure at 30 June 2006 is calculated as—

(63/184 × $852,533) + ($857,381) +(121/184 × $863,020) – $8,141 – $6,609
= $1,702,060

where NZD $1,702,060 is gross income of the NZ investor.

At the third balance date – 30 June 2007

The gross income or expenditure at 30 June 2007 is calculated as—

(63/184 × $863,020) + ($869,494) + (121/184 × $876,855) – $1,600 + $4,506
= $1,744,518

where NZD $1,744,518 is gross income of the NZ investor.

On 30 September 2007 the bond is sold for USD $10,000,000 (i.e. an approximate yield of 16% pa). At this date the USD/NZD spot rate was 0.6320. At this date the investor is subject to the base price adjustment under section EH 47—

consideration – income + expenditure + amount remitted

where—

consideration	is the consideration paid or payable to the company less the consideration paid or payable by the company: = 500,000/.6455 + 500,000/.6500 + 500,000/.6550 + 500,000/.6570 + 500,000/.6580 + 500,000/.6400 + 10,000,000/.6320 − 8,300,000/.6310 = $20,432,131 − $13,153,724 = NZD $7,278,407
income	is all the amounts of gross income derived in previous income years = 1,398,812 + 1,702,060 + 1,744,518 (as calculated above) = $4,845,390 NZD
expenditure	is expenditure incurred in previous income years = 0
amount remitted	is the amount of consideration remitted = 0.

So the base price adjustment is—
consideration – income + expenditure + amount remitted
= 7,278,407 – 4,845,390 + 0 + 0
= NZD $2,433,017.

Since this is a positive amount it is gross income of the NZ investor in this income year.

Example B: Discounted bond entered into before the 2003-04 income year

A NZ investor holds a United States Treasury Bond on its balance date of 30 June 2004. The bond has a term of 5 years and bears 10% interest payable semi-annually on 1 September and 1 March. It has a face value of USD $10,000,000. The bond was purchased at issue for USD $8,300,000 and matures on 1 September 2007.

This is effectively the same as Example A except that the discounted bond was acquired on 1 September 2002. The following table presents the spot rates at the relevant dates and the forward rates at the time of contract out to the relevant dates as in Example A.

Date	Spot	Fwd (0,t)	US,I	NZ,I
1-Sep-02	0.6310	0.6310	0.05	0.04
1-Mar-03	0.6455	0.6371	0.05	0.04
1-Sep-03	0.6500	0.6432	0.05	0.04
1-Mar-04	0.6550	0.6494	0.05	0.04
1-Sep-04	0.6570	0.6556	0.05	0.04
1-Mar-05	0.6580	0.6619	0.05	0.04
1-Sep-05	0.6400	0.6683	0.05	0.04
1-Mar-06	0.6380	0.6747	0.05	0.04
1-Sep-06	0.6150	0.6812	0.05	0.04
1-Mar-07	0.6150	0.6878	0.05	0.04
1-Sep-07	0.6150	0.6944	0.05	0.04

In the 2003–04 income year – 30 June 2004

The gross income or expenditure under the discounted bond has been calculated in previous income years according to *Determination G9A*. The corporate has already recognised gross income of $1,398,812 in the 30 June 2003 income year.

However, the corporate has elected to adopt this determination from the 2003–04 income year. The expected NZD net amount to be spread under this determination must, therefore, be determined at the end of the 2003–04 income year. The following table summarises the actual payments from 1 September 2002 to the end of the 2003–04 income year and the expected NZD payments for the remaining term of the financial arrangement. These expected NZD payments were calculated on the basis of the forward rates at 30 June 2004 out to the relevant dates. For the sake of simplicity, these forward rates are assumed to be the same, in this example, as those measured at the time of contract. In practice, however, the forward rates measured at the time of contract are rarely the same as the forward rates measured at a later date.

Date	Expected Cash (NZD)	Expected Income
1-Sep-02	−13,153,724	
1-Mar-03	774,593	845,427
1-Sep-03	769,231	849,980
1-Mar-04	763,359	855,170
1-Sep-04	762,635	861,071
1-Mar-05	755,372	867,397
1-Sep-05	748,178	874,598
1-Mar-06	741,052	882,723
1-Sep-06	733,995	891,829
1-Mar-07	727,004	901,973
1-Sep-07	15,121,690	913,219
	8,743,386	
6-Month YTM	6%	

At the end of the 2003–04 income year, the expected NZD net amount in relation to the discounted bond is NZD $8,743,386, representing an annual yield of approximately 12%. The expected NZD net amount is spread over the term of the financial arrangement in a way consistent with *Determination G3*.

The transitional adjustment in the 2003–04 income year is—

$$a - b - c + d$$

where—

a is the sum of all amounts that would have been income from the time the financial arrangement was entered into until the end of the 2003–04 income year
= 845,427 + 849,980 + 855,170 + 861,071 × 121/184
= $3,116,825

b is the sum of all amounts that would have been expenditure from the time the financial arrangement was entered into until the end of the 2003–04 income year
= 0

c is the sum of all income in respect of the financial arrangement since it was acquired until the end of the previous income year
= $1,398,812

d is the sum of all expenditure in respect of the financial arrangement since it was acquired until the end of the previous income year
=0.

The net amount of NZD $1,718,013 is gross income in the 2003–04 income year.

The income or expenditure in relation to the discounted bond in subsequent income years will be calculated as in Example A. The expected component of the gross income or expenditure is determined as summarised in the table above while the unexpected component is calculated as in Example A.

Example C: Multi-currency loan facility with early repayment

A corporate borrower has a multi-currency loan facility that allows funds to be drawn down in any of three currencies—US Dollars (USD), Sterling (GBP) and Deutschemarks (DM). The total initial amount of the loan is USD $100,000,000 and may be taken in any combination of the three currencies. The term of the loan facility is 10 years and any tranche may be repaid at any time by payment of the principal outstanding. The mixture of currencies can be changed at each 6-monthly interest payment date. Interest is payable in the currency of the principal amount at rates depending on the currency as shown below.

The loan is initially drawn down on 1 October 2004 in the configuration below. Interest is payable 6-monthly in arrears on 1 February and 1 August. The corporate borrower has a 31 March balance date. Its base currency is NZD.

Initial drawn down configuration				
Currency	**Amount**	**Spot rate (against USD)**	**USD equiv**	**Interest rate**
USD	$55m		$55m	9%
GBP	STG36m	0.5500	$19.8m	11%
DM	DM60m	0.4083	$24.5m	5%
		Total	$99.3m	

For the purpose of illustration, the spot rates and the forward rates at the initial drawn down date out to the relevant dates for GBP/NZD are presented below. The forward rates were estimated based on the principle of covered interest parity using the interest rates in the UK (UK,I), the domestic interest rates (NZ,I) and the spot rate at the initial drawn down date. In this simple example the (UK,I) and the (NZ,I) were assumed to be 10% per annum and 8% per annum, respectively, and they remain constant throughout the entire period (assuming a horizontal yield curve so that a 6-month bond and a 10-year bond have the same rate).

Date	Actual Spot	CIP Fwd (0,t)	Expected UK,I	Expected NZ,I
1-Oct-04	0.3300	0.3300	0.05	0.04
1-Feb-05	0.3345	0.3332	0.05	0.04
1-Aug-05	0.3340	0.3364	0.05	0.04
1-Feb-06	0.3310	0.3396	0.05	0.04
1-Aug-06	0.3184	0.3429	0.05	0.04
1-Feb-07	0.3046	0.3462	0.05	0.04
1-Aug-07	0.3387	0.3495	0.05	0.04
1-Feb-08	0.3024	0.3529	0.05	0.04
1-Aug-08	0.2829	0.3563	0.05	0.04
1-Feb-09	0.3503	0.3597	0.05	0.04
1-Aug-09	0.3736	0.3631	0.05	0.04
1-Feb-10	0.3773	0.3666	0.05	0.04
1-Aug-10	0.3874	0.3702	0.05	0.04
1-Feb-11	0.4034	0.3737	0.05	0.04
1-Aug-11	0.4225	0.3773	0.05	0.04
1-Feb-12	0.4435	0.3809	0.05	0.04
1-Aug-12	0.4414	0.3846	0.05	0.04
1-Feb-13	0.4296	0.3883	0.05	0.04
1-Aug-13	0.3955	0.3920	0.05	0.04
1-Feb-14	0.3953	0.3958	0.05	0.04
1-Aug-14	0.3953	0.3996	0.05	0.04
1-Oct-14	0.3953	0.4034	0.05	0.04

For taxation purposes each of these tranches is treated as a separate financial arrangement. The following example illustrates the way gross income or expenditure with respect to the Sterling (GBP) tranche is calculated at the initial drawn down date and the subsequent balance dates.

At the initial drawn down date – 1 October 2004

At the initial drawn down date, the expected payments in GBP and NZD over the 10-year period are as follows:

Date	(a) GBP Cash	(b) Expected Cash NZD	(c) Expected Expenditure
1-Oct-04	36,000,000	109,090,909	
1-Feb-05	−1,320,000	−3,961,905	4,646,006
1-Aug-05	−1,980,000	−5,886,259	4,675,141
1-Feb-06	−1,980,000	−5,830,199	4,623,561
1-Aug-06	−1,980,000	−5,774,673	4,572,173
1-Feb-07	−1,980,000	−5,719,676	4,520,960
1-Aug-07	−1,980,000	−5,665,203	4,469,909
1-Feb-08	−1,980,000	−5,611,249	4,419,003
1-Aug-08	−1,980,000	−5,557,808	4,368,227
1-Feb-09	−1,980,000	−5,504,877	4,317,565
1-Aug-09	−1,980,000	−5,452,450	4,266,999
1-Feb-10	−1,980,000	−5,400,521	4,216,513
1-Aug-10	−1,980,000	−5,349,088	4,166,088
1-Feb-11	−1,980,000	−5,298,144	4,115,706
1-Aug-11	−1,980,000	−5,247,686	4,065,347
1-Feb-12	−1,980,000	−5,197,708	4,014,993
1-Aug-12	−1,980,000	−5,148,206	3,964 ,624
1-Feb-13	−1,980,000	−5,099,175	3,914,217
1-Aug-13	−1,980,000	−5,050,612	3,863,751
1-Feb-14	−1,980,000	−5,002,511	3,813,205
1-Aug-14	−1,980,000	−4,954,868	3,762,554
1-Oct-14	−36,660,000	−90,866,409	3,711,775
Total	−39,600,000	−88,488,316	88,488,316
6-Month YTM	5%	4%	

On 1 October 2004 the corporate borrower received GBP £36,000,000, which is equivalent to NZD $109,090,909. On 1 February 2005, the interest payment in arrears for the 4 months from the initial drawn down date amounts to GBP £1,320,000, which is equivalent to NZD $3,961,905 (valued at the relevant forward rate of 0.3332 at the initial drawn down date). The subsequent interest payments were also converted to NZD in the same way. Overall NZD net amount of $88,488,316 represent an expected yield of approximately 8% per annum. The expected yield is spread according to *Determination G3* (see column (c)).

The actual NZD payments will deviate from the expected NZD payments due to fluctuations in the exchange rates. For instance, the actual NZD payment on 1 February 2005 was NZD $3,946,188 instead of NZD $3,961,905 anticipated at the initial drawn down date. This created an unexpected component of NZD $15,716 for the gross income or expenditure in respect of the financial arrangement. The following table presents the unexpected component of the gross income or expenditure over the term of the financial arrangement.

Date	Expected Cash NZD	Actual Cash NZD	Unexpected Income/ Expenditure
1-Oct-04	109,090,909	109,090,909	
1-Feb-05	−3,961,905	−3,946,188	−15,716
1-Aug-05	−5,886,259	−5,928,144	41,885
1-Feb-06	−5,830,199	−5,981,873	151,674
1-Aug-06	−5,774,673	−6,218,593	443,920
1-Feb-07	−5,719,676	−6,500,328	780,652
1-Aug-07	−5,665,203	−5,845,881	180,678
1-Feb-08	−5,611,249	−6,547,619	936,370
1-Aug-08	−5,557,808	−6,998,940	1,441,131
1-Feb-09	−5,504,877	−5,652,298	147,421
1-Aug-09	−5,452,450	−5,299,786	−152,664
1-Feb-10	−5,400,521	−5,247,813	−152,708
1-Aug-10	−5,349,088	−5,110,996	−238,091
1-Feb-11	−5,298,144	−4,908,280	−389,865
1-Aug-11	−5,247,686	−4,686,391	−561,295
1-Feb-12	−5,197,708	−4,464,487	−733,221
1-Aug-12	−5,148,206	−4,485,727	−662,479
1-Feb-13	−5,099,175	−4,608,939	−490,237
1-Aug-13	−5,050,612	−5,006,321	−44,291
1-Feb-14	−5,002,511	−5,008,854	6,343
1-Aug-14	−4,954,868	−5,008,854	53,986
1-Oct-14	−90,866,409	−92,739,691	1,873,282
Total	−88,488,316		2,616,778

At the first balance date – 31 March 2005

Expected component =
4,646,006 + (4,675,141 × 59/181) = \$6,169,947.

Unexpected component = \$15,716.

Total gross expenditure =
\$6,169,947 – \$15,716 = \$6,154,231.

At the second balance date – 31 March 2006

Expected component = (122/181 × 4,675,141) + 4,623,561 + (4,572,173 × 59/181)
= \$9,265,138.

Unexpected component =
\$41,885 + \$151,674 = \$193,559.

Total gross expenditure =
\$9,265,138 + \$193,559 = \$9,458,697.

On 1 June 2006 the corporate borrower decides to switch out of GBP and borrow more USD. For the purpose of calculating the corporate's gross income or expenditure, the GBP tranche is deemed to be repaid and is subject to the base price adjustment in this income year. The spot rate GBP to NZD was 0.3200 on the date of repayment.

The base price adjustment is given in section EH 47 of the Act. It calculates an amount by application of the formula—

consideration – income + expenditure + amount remitted

where—

consideration is the consideration paid or payable to the company less the consideration paid or payable by the company. This is equal to the amount of GBP drawn down less the sum of the interest payments made and the deemed principal repayment amount
= 36 m/.3300 − (1.32m/.3345 + 1.98 m/.3340 + 1.98m/.3310 + 36m/.3200)
= NZD $109,090,909 − NZD $128,356,205
= −NZD $19,265,296

income is all the amounts of gross income derived in previous income years
= 0

expenditure is expenditure incurred in previous income years. The gross expenditure for the previous 2 years of the loan facility were—

for the year ended 31 March 1989 = $6,154,231;
for the year ended 31 March 1990 = $9,458,697.
The total gross expenditure is 6,154,231 + 9,458,697
= NZD $15,612,928

amount remitted is the amount of consideration remitted
= 0.

The base price adjustment is therefore—
–19,265,296 + 15,612,928
= −NZD $3,652,368.

This amount is gross expenditure of the corporate borrower in this income year in accordance with section EH 47 of the Act.

Example D: Variable rate financial arrangement

This example is similar to Example D in *Determination G26: Variable Rate Financial Arrangements*. This example illustrates how this determination could be applied to a variable rate financial arrangement.

A New Zealand company purchased a USD note with a face value of $10,000 for a term of 3 years at a discount of 10% ($1,000). The interest rate is equal to market interest plus 1% pa, and interest is payable half-yearly in arrears. There are no fees. The interest rate is 10% in the first period after issue.

Assuming that this interest rate holds throughout the term of the notes, the yield to maturity is 14.2% pa, calculated at half-yearly rests. The table below summarises the expected base currency payments and the relevant spot and forward exchange rates.

t	USD Cash	Spot	Fwd (0,t)	US,I	NZ,I
0	−9,000	0.6310	0.6310	0.05	0.04
1	500	0.6455	0.6371	0.05	0.04
2	500	0.6500	0.6432	0.05	0.04
3	500	0.6550	0.6494	0.05	0.04
4	500	0.6570	0.6556	0.05	0.04
5	500	0.6580	0.6619	0.05	0.04
6	10,500	0.6400	0.6683	0.05	0.04
	14.2%				

At the time of entering into the floating arrangement, the New Zealand company needs to make the following calculation:

t	USD Cash	Expected Cash NZD	Expected Income
0	−9,000	−14,263	
1	500	785	868
2	500	777	873
3	500	770	879
4	500	763	885
5	500	755	893
6	10,500	15,712	901
	4,000	5,299	5,299
	14.2%	12.2%	

The base currency payments, calculated on the basis of the initial interest rate (i.e. 10%), are translated into expected NZD payments on the basis of forward rates available at the time the company entered into the financial arrangement. The expected NZD net amount of NZD $5,299, representing a yield of 12.2%, is spread using the yield to maturity method consistent with *Determination G3*. The expected component of the gross income or expenditure for each half-year period over the term of the arrangement is presented in the final column of the table above.

When payments are subsequently made, the actual NZD payments may differ from the expected NZD payments due to fluctuations in both the interest rates and the exchange rates. The final outcomes are presented in the following table:

t	Actual US,I	Actual Cash USD	Expected Cash NZD	Actual Cash NZD	Unexpected Income/ Expenditure
0		−9,000	−14,263	−14,263	0
1	0.10	500	785	775	−10
2	0.11	500	777	846	69
3	0.09	500	770	687	−83
4	0.09	500	763	685	−78
5	0.08	500	755	608	−147
6	0.08	10,500	15,712	16,250	538

At the first balance date

There are 2 components to the gross income or expenditure in relation to the floating rate financial arrangement for the New Zealand company. These include—

Expected component = $868 + $873 = $1,741; and
Unexpected component = −$10 + $69 = $59.

The gross income for the first balance date is therefore $1,800.

At the second balance date

The gross income consists of—

Expected component = $879 + $885 = $1,764; and
Unexpected component = −$83 – $78 = −$161.

The gross income for the second balance date is therefore $1,603.

At the final balance date

The New Zealand company has to perform a base price adjustment under section EH 47 of the Act—

consideration – income + expenditure + amount remitted

where—

consideration is the consideration paid or payable to the company less the consideration paid or payable by the company
= 775 + 846 + 687 + 685 + 608 + 16,250 − 14,263
= NZD $5,588

income is all the amounts of gross income derived in previous income years
1,800 + 1,603
= NZD $3,403

expenditure is expenditure incurred in previous income years
= 0

amount remitted is the amount of consideration remitted
= 0.

So the base price adjustment is—
consideration – income + expenditure + amount remitted
= 5,588 – 3,403 + 0 + 0
= NZD $2,185.

Since this is a positive amount, it is gross income of the New Zealand company in this income year.