

DETERMINATION > FINANCIAL ARRANGEMENTS > GENERAL

Discounted Value of Amounts Payable in Relation to Trade Credits Denominated in a Foreign Currency

Issued: 9 February 1990

G20

This Determination may be cited as "Determination G20: Discounted Value of Amounts Payable in Relation to Trade Credits Denominated in a Foreign Currency".

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

1. This determination provides the method to be used to calculate the core acquisition price for a trade credit under sub-paragraph (iii) of the definition of “u” in section 64BA(1)(b) of the Act where—
 - (a) Any right or obligation of the parties is expressed in a “base currency” other than New Zealand dollars; and
 - (b) All amounts payable in relation to the trade credit and the dates on which they are payable are known at the first balance date after the supply date; and
 - (c) The term of the trade credit is known at the first balance date after the supply date; and
 - (d) Section 64BA(1)(b)(i), the cash price of the goods or services to which the trade credit relates as determined in the Credit Contracts Act 1981, is not applicable; and
 - (e) Section 64BA(1)(b)(ii), the lowest price at which the specified goods or services could be purchased under a short term trade credit, is not applicable.

The core acquisition price is a component of the acquisition price, which is—

- (i) Required to calculate income derived or expenditure incurred in an income year in accordance with the Income Tax Act 1976 and relevant determinations (and for this purpose the acquisition price must be expressed in the base currency); and
 - (ii) Converted to New Zealand dollars for the purposes of the base price adjustment.
2. A short term trade credit, where payment is required within 63 days after supply of the specified goods or services, is exempted from the scope of the accrual provisions by the definitions in section 64B(1) of the Act. This determination cannot apply to a short term trade credit.
3. Any other trade credit is subject to the accrual provisions of the Act and relevant determinations. Where paragraph (iii) of the definition of “u” applies the acquisition price (and therefore the core acquisition price) must be determined as at the supply date of the specified goods or services.
4. Sections 64BA(2) and (3) of the Act define acquisition price in terms of the core acquisition price, which is itself defined in section 64B(1). Paragraphs (i) and (ii) of the definition of “u” in that section provide two ways of determining the amount “u” which is required for calculating the core acquisition price. Where neither of these apply,

paragraph (iii) of the definition of “u” in section 64BA(1) provides that “u” shall be “the discounted value of the amounts payable for the specified goods and services, as determined pursuant to a determination made by the Commissioner under section 64E(1)(f) of this Act”.

5. For these purposes any amount determined in a currency other than New Zealand dollars is required to be discounted using an interest rate appropriate to the currency. This determination allows the use of—
 - (a) A foreign currency interest rate ascertained using a method consistent with Determination G13: Prices or Yields as at the supply date — this interest rate is the interbank offer rate for the currency and term of the trade credit; or
 - (b) An implied foreign currency interest rate calculated by reference to appropriate forward and spot exchange rates and the New Zealand bank bill or New Zealand Government Stock rates appropriate to the term of the trade credit.
6. The interest rate appropriate to the term of the trade credit is selected by the taxpayer, and once chosen the rate is required to be used in respect of every income year in which the taxpayer is a holder or an issuer of the trade credit.
7. The amounts payable under the trade credit are discounted to the supply date using the interest rate so ascertained and present value calculation Method A in Determination G10: Present Value Calculation Methods, or an alternative method producing not materially different results.
8. The discounted value of the amounts payable is the amount “u” to be used for calculating the core acquisition price.
9. The core acquisition price is used to determine the acquisition price of a trade credit in accordance with sections 64BA(2) or (3) of the Act.
10. Once the acquisition price is known in the base currency, income derived or expenditure incurred in relation to a trade credit shall be calculated, as if the value of the specified goods or services were equal to the amount of the core acquisition price, using the yield to maturity method, and Determination G9A: Financial Arrangements that are Denominated in a Currency or Commodity other than New Zealand Dollars. The yield to maturity method chosen may be that determined in Determination G3: Yield to Maturity Method or Determination G11: Present Value Based Yield to Maturity method or an alternative method producing a result that is not materially different.
11. For purposes of the base price adjustment as defined in section 64F, the acquisition price must be converted to New Zealand dollars on the supply date of the specified goods or services.

2 Reference

This determination is made pursuant to sections 64E(1)(a) and 64E(1)(f) of the Income Tax Act 1976.

3 Scope of Determination

This determination shall apply to every trade credit where any amount payable is denominated in a currency other than New Zealand dollars, but it shall not apply—

- (a) To a trade credit to which paragraph (b)(i) or paragraph (b)(ii) of the definition of “core acquisition price” in section 64B(1) of the Act applies; or
- (b) Where in relation to the trade credit any amount payable or the date on which any amount is payable is not known at the first balance date after supply date; or
- (c) Where the term of the trade credit is not known at the first balance date after the supply date.

4 Principle

1. The discounted value of amounts payable for the specified goods or services is calculated—
 - (a) In the base currency as if it were New Zealand currency;
 - (b) Using an interest rate appropriate for the currency, the rate being either—
 - (i) A rate ascertained using a method consistent with Determination G13: Prices or Yields that is the foreign interbank offer rate appropriate to the term of the trade credit; or
 - (ii) A rate calculated by reference to appropriate spot and forward exchange rates and the bank bill or New Zealand Government Stock rates appropriate to the term of the trade credit; and
 - (c) Using present value calculation Method A provided in clause 6(2) of Determination G10: Present Value Calculation Methods, or an alternative method producing not materially different results.
2. The discounted value of the amounts payable for the specified goods or services enables the acquisition price of a trade credit to be ascertained for the purposes of determining income derived or expenditure incurred in any period and the base price

adjustment. For the latter purpose the discounted value of the amounts payable is converted to New Zealand dollars on the supply date of the specified goods or services.

3. The discounted value so calculated is taken into account in determining the income or expenditure accruing from the trade credit in any income year, and where the discounted value and the amount of future payments under the trade credit are known the yield to maturity method is to be applied.

5 Interpretation

1. In this determination, unless the context otherwise requires—

Expressions used have the same meanings as in the Act and where a word or expression is given a particular meaning for the purposes of sections 64B to 64M of the Act it shall have the same meaning as in the said sections 64B to 64M:

“The Act” means the Income Tax Act 1976:

“Acceptable present value calculation method” means Method A of Determination G10: Present Value Calculation Methods, or an alternative method producing not materially different results.

“Bank bill” means an order to pay, denominated in New Zealand currency and drawn upon and accepted by—

(a) A registered bank as defined in section 2(1) of the Reserve Bank of New Zealand Act 1964; or

(b) Any person referred to in part A of the first schedule to the Reserve Bank of New Zealand Act 1964:

“Base currency” in relation to a financial arrangement means the currency in which rights and obligations under the financial arrangement are fixed:

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

“Final payment” in relation to a trade credit means the last payment required to be made by the issuer of the trade credit under the trade credit, other than any amount that is not material in relation to the total consideration required to be provided by the issuer under the financial arrangement:

“Forward exchange rate” means the price at which foreign currency can be bought or sold for delivery at a specified future time:

"Interbank offer rate" in relation to a term means the rate at which a bank makes funds available to another bank which is a highly reliable credit risk and a trader in the market for such funds and for such a term; and includes, according to the circumstance, the rates collectively referred to as "LIBOR" and "SIBOR":

"Specified goods and services" in relation to a trade credit means the goods and services to which the trade credit relates:

"Spot rate" means the price at which foreign currency can be bought or sold for delivery in 2 days:

"Supply date" means the day on which the specified goods or services are supplied:

"Term" in relation to a trade credit means the period commencing on and including the day after the supply date and ending on and including the day on which the final payment is required to be made.

2. Any reference in this determination to another determination made by the Commissioner shall be construed as including a reference to any fresh determination made by the Commissioner to vary, rescind, restrict, or extend that determination.

6 Method

1. For the purpose of paragraph (iii) of the definition of "u" in section 64BA(1)(b) of the Act, the discounted value of the amounts payable for the specified goods or services in relation to any person shall be the amount of New Zealand dollars equal in value to the present value as at the supply date of amounts payable to or, as the case may be, by the person for the specified goods or services after the supply date.
2. For the purposes of this determination, the present value as at supply date of amounts payable shall be calculated, using the interest rate determined under subclause (3)(a), or (b), or clause (4), as appropriate, and an acceptable present value calculation method. The present value so calculated is the amount "u" to be used to determine the core acquisition price.
3. In the first income year in which a person is a party to and derives income or incurs expenditure in respect of a trade credit, the annual rate of interest at which the present value of the amounts payable is required to be calculated shall be, at the option of the person, either—
 - (a) The interbank offer rate for the base currency and the term of the trade credit at supply date of the specified goods or services, being a market yield determined in a manner consistent with Determination G13: Prices or Yields; or

(b) A rate derived by—

(i) Converting the amount of the final payment from the base currency to New Zealand currency at the forward exchange rate for a term similar to the term of the trade credit and ascertained as at the supply date of the specified goods or services; and

(ii) Calculating the present value of the amount thus calculated, using an acceptable present value calculation method and—

(A) Where the term of the trade credit is twelve months or less, the yield for bank bills of a similar term to the term of the trade credit;

(B) In any other case the yield for New Zealand Government Stock of a similar term to the term of the trade credit—

the rate being determined as at the supply date of the specified goods or services and determined according to Determination G13: Prices or Yields; and

(iii) Converting the amount thus calculated to the base currency at the spot rate for the currency on the supply date of the specified goods or services; and

(iv) Calculating the base currency interest rate R for the purposes of applying Method A in Determination G10: Present Value Calculation Methods such that, if the said Method A were applied to the final payment over the term of the trade credit, the present value so calculated would be equal to the amount calculated in sub-paragraph (iii) of this paragraph—

and for this purpose the exchange rate and the forward exchange rate are to be determined in accordance with Determination G6A: Foreign Exchange Rates—

and in all subsequent income years during the term of the trade credit the annual rate of interest for that purpose in respect of the trade credit shall be the rate first used in respect of the trade credit pursuant to this sub-clause.

4. Where an amount payable is expressed in a foreign currency and is required to be converted to New Zealand dollars Determination G6A: Foreign Currency Rates shall be used. If the base currency is not approved in Determination G6A: Foreign Currency Rates, a spot rate at which an arm's length dealing would be expected to take place at the supply date shall be used.
5. The core acquisition price shall be used to determine the acquisition price of a trade credit in accordance with sections 64BA(2) and (3) of the Act.

6. Income derived or expenditure incurred in relation to a trade credit shall be calculated as if the value of the specified goods or services were equal to the amount of the core acquisition price using the yield to maturity method and Determination G9A: Financial Arrangements that are Denominated in a Currency or Commodity other than New Zealand Dollars. For this calculation the acquisition price shall be expressed in the base currency.
7. For the purposes of the base price adjustment, the acquisition price of the trade credit shall be converted to New Zealand dollars at the spot rate as at the supply date of the specified goods or services.

7 Example

A. Calculation where foreign interbank interest rate

A trade credit is entered into on 1 December 1988. Under the trade credit, goods supplied on 17 February 1989 are to be paid by \$400,000 USD on 14 July 1989. The term of the trade credit (period from day after supply date to final payment date) is therefore 147 days.

For the purposes of calculating income derived or expenditure incurred and the base price adjustment it is necessary to calculate the core acquisition price.

The US dollar interbank offer rate (LIBOR or SIBOR) on 17 February 1989 for 147 days is 9.625% ascertained using a method consistent with Determination G13: Prices or Yields.

Foreign currency spot rates ascertained in accordance with Determination G6A: Foreign Currency Rates, for various dates are:

17 February	1989	0.6300
31 March	1989	0.6250
14 July	1989	0.6400

In this case, the purchaser is the "issuer" for purposes of the accruals legislation.

Method A of Determination G10: Present Value Calculation Methods, is applied to calculate the present value as at 17 February 1989 (the "specified date") as follows—

$$\begin{aligned}
 A &= 0 \\
 B &= \text{US\$400,000 (payable by the issuer or receivable by the holder)} \\
 C &= 0 \quad \text{(payable by the holder or receivable by the issuer)} \\
 R &= 9.625\% \quad \text{(the specified rate)} \\
 N &= \frac{365}{147} \\
 &= 2.48299 \\
 F &= \frac{R}{100 \times N} = 0.038763 \\
 \text{Present value} &= \frac{A + B - C}{1 + F} = \text{US\$385,073}
 \end{aligned}$$

This is converted into NZD at supply date using the spot rate of USD/NZD .6300 = NZ\$611,227 and is the amount "u" for the purposes of calculating the core acquisition price.

For purposes of recognizing income derived or expenditure incurred in relation to the trade credit Determination G3 is used, where R = 9.625%, N = 2.48299, and F = 0.038763 and the acquisition price is US\$385,073. The expense for the period 17 February to 14 July is therefore US\$400,000 – \$385,073 = US\$14,927. This is apportioned between periods using Determination G1A as follows:

1988/89	42 days	US\$ 4,265
1989/90	105 days	US\$10,662

At balance date the expense for the period must be revalued to reflect exchange rate movements and subsequent gains or losses on the transaction using Determination G9A.

Closing tax book value is $a = e + f + g - h - i$ where,

$$e = 0$$

$$f = 0$$

$$g = 0$$

$$h = \text{US\$385,073 (the acquisition price)}$$

$$i = \text{US\$4,265 (expense incurred during year)}$$

Closing tax book value (CTBV) is therefore –US\$389,338

Expenditure for the year is calculated in New Zealand dollars using the formula in Determination G9A of $a + b - c - d$ where,

a = NZ\$622,941 (CTBV/spot rate at balance date)

b = NZ\$611,227 (acquisition price/opening spot rate)

c = 0

d = 0

As the result is negative it is deemed to be expenditure incurred of NZ\$11,714.

At the end of the financial arrangement on the 14 July 1989 the base price adjustment a – (b + c) is calculated where,

a = total consideration paid by issuer

= total amount of credit/closing spot rate

= NZ\$625,000 (US\$400,000/0.6400)

b = acquisition price/opening spot rate

= NZ\$611,227

c = total expenditure incurred previous year

= \$11,714

bpa = NZ\$2,059

As this is positive it is expenditure incurred in the 1990 income year.

Total expenditure claimed in relation to the credit is:

NZ\$ (11,714 + 2,059) = NZ\$13,773

B. Calculation of interest rate where foreign interbank interest rate is not used

The purchaser must calculate an implied foreign interest rate by the steps below.

Convert payment US\$400,000 using FWD Rate to NZ dollars. Forward rate ascertained 17 February 1989 in regard payment in 147 days is USD/NZD .6200. $\$400,000/.6200 =$ NZ\$645,161.

Assume that the yield for NZ bank bills of a 147 day term is 13.5% p.a., ascertained at 17 February 1989 in accordance with Determination G13: Prices or Yields.

Foreign currency spot rate ascertained in accordance with Determination G6A: Foreign Currency Rates, as at 17 February 1989 is USD/NZD .6300.

Method A of Determination G10: Present Value Calculation Methods, is applied to calculate the present value as at 17 February 1989 (the "specified date") as follows—

$$A = 0$$

$$B = \text{NZ\$645,161 (payable by the issuer or receivable by the holder)}$$

$$C = 0 \quad (\text{payable by the holder or receivable by the issuer})$$

$$R = 13.5\% \quad (\text{the specified rate})$$

$$N = \frac{365}{147} \\ = 2.48299$$

$$F = \frac{R}{100 \times N} = 0.05437$$

$$\text{Present Value} = \frac{A + B - C}{1 + F} = \text{NZ\$611,892}$$

This amount is converted into US dollars using the spot rate on 17 February 1989,

$$\text{NZ\$631,892} \times .6300 = \text{US\$385,492.}$$

The foreign interest rate is that which results in the US\$400,000 when discounted being equal to US\$385,492. The rate calculated in accordance with Determination G3: Yield to Maturity Method, is 9.344% per annum. The present value as at supply date, calculated using this interest rate in the same way as shown in example (A), will give NZ\$611,892 as above. The importance of deriving this foreign currency interest rate is that it allows the calculation of expenditure using Determination G9A, as above.

About this document

General determinations set out the Commissioner's view on how the financial arrangements rules apply to a specific type of financial arrangement. All general determinations are binding on the Commissioner and some are also binding on taxpayers.