

(b) the actual interest payable in respect of that Period.

In the first six month Period the interest rate was 10 per cent p.a. so that total expenditure incurred was \$75 plus actual interest of \$500 which is \$575.

This expenditure would be allocated on a daily basis to each day in the Period using Determination G1A: Apportionment of Income and Expenditure on a Daily Basis.

If the holder was a New Zealand taxpayer able to use the straight line method, it would be deemed to derive income of similar amounts.

(3) *Example C* (a zero coupon loan)

A New Zealand company raises \$5,000 by issuing 5 year notes with a face value of \$10,000 at a 50 per cent discount. No interest is payable. The taxpayer is an issuer in relation to the financial arrangement.

The Total Finance Charges payable by the borrower are—

	\$	
	10,000	amount payable
-	5,000	amount received
	5,000	

In this case Method A may be used.

The Period Between Payments is 1 year and the appropriate time unit is a year. There are 5 periods between payments. Therefore the discount would be allocated equally as \$1,000 to each of the five periods in the term of the loan, and would then be apportioned to income years using Determination G1A: Apportionment of Income and Expenditure on a Daily Basis.

Method B

(4) *Example D* (a reducing principal fixed interest loan)

On 12 February 1992 a company borrows NZ\$10,000 for 5 years. The money is raised by issuing notes at a discount of 4.5 per cent.

\$2,000 of the notes are to be repaid on each anniversary of the loan. Interest at 16 per cent p.a. is payable half yearly in arrears on the balance of the notes outstanding during the half year.

The borrower is a New Zealand company. There are no fees. The taxpayer is an issuer in relation to the financial arrangement.

The length of each Period is half a year.

The interest payable in the first year is \$1,600. Each subsequent year this reduces by \$320. The Total Finance Charges to the borrower are therefore—

	\$	
	10,000	principal payable
+	4,800	(i) interest payable
-	9,550	principal received
	5,250	

(i) total interest payable

$$1,600 + 1,280 + 960 + 640 + 320 = 4,800$$

Therefore a = \$5,250 ('a' is a variable used in the formula described in Method B).

The following table sets out the allocation of the Total Finance Charges, where b = 1 throughout (since there is one time unit of half a year in each Period):—

Half year Period	Principal outstanding c	(b×c) e	Expenditure $\frac{a \times b \times c}{d}$
1	10,000	10,000	875
2	10,000	10,000	875
3	8,000	8,000	700

Half year Period	Principal outstanding c	(b×c) e	Expenditure $\frac{a \times b \times c}{d}$
4	8,000	8,000	700
5	6,000	6,000	525
6	6,000	6,000	525
7	4,000	4,000	350
8	4,000	4,000	350
9	2,000	2,000	175
10	2,000	2,000	175
	Total d =	60,000	5,250

This expenditure would be spread using Determination G1A: Apportionment of Income and Expenditure on a Daily Basis.

(Note that in practice the income in the final year would be determined using the base price adjustment).

If the holder was a New Zealand taxpayer able to use the straight line method, it would be deemed to derive income of similar amounts.

(5) *Example E* (a reducing principal variable rate loan)

This is the same as Example D except that interest is determined according to a market indicator.

The notes, with a face value of \$10,000, were issued at a 4.5 per cent discount. There are no fees. The Total Finance Charges to the borrower are—

	\$	
	10,000	principal payable
-	9,550	principal received
	450	

whence a = 450

Note that since the arrangement is a Variable Rate Financial Arrangement interest amounts are excluded from the calculation of the Total Finance Charges.

The following table sets out the allocation of the Total Finance Charges, where 'b' equals one throughout (since there is one time unit of half a year in each period). The actual interest payable in the Period must be added to the amount apportioned in each Period to determine total expenditure.

Half year Period	Principal outstanding c	(b×c) e	Expenditure $\frac{a \times b \times c}{d}$
1	10,000	10,000	75
2	10,000	10,000	75
3	8,000	8,000	60
4	8,000	8,000	60
5	6,000	6,000	45
6	6,000	6,000	45
7	4,000	4,000	30
8	4,000	4,000	30
9	2,000	2,000	15
10	2,000	2,000	15
	Total d =	60,000	450

This expenditure would be spread using Determination G1A: Apportionment of Income and Expenditure on a Daily Basis.

(Note that in practice the income in the final year would be determined using the base price adjustment).

If the holder was a New Zealand taxpayer able to use the straight line method, it would be deemed to derive income of similar amounts.

(6) *Example F* (a loan with different repayment periods)

A New Zealand taxpayer borrows \$75,000 and agrees to repay \$100,000. Repayments are \$30,000 at the end of year one and \$70,000 at the end of year four. The taxpayer is an issuer in relation to the financial arrangement.

The Total Finance Charges payable by the borrower are—