

Table 2: DCF calculations

Day count method	DCF calculation
	DCF = Days1 / 366 + Days2 / 365
Act/Act	Days1 = Actual number of days in period that fall in a leap year. Days2 = Actual number of days in period that fall in a normal year.
	DCF = Num/Den
Act/365F	Num = Actual number of days within the accrual period Den = 365
	DCF = Num/Den
Act/360	Num = Actual number of days within the accrual period Den = 360
	DCF = Num/Den
Act/365A	Num = Actual number of days within the accrual period Den = 366 if the Leap day (29th Feb) falls within the accrual period else 365
	DCF = Num/Den
Act/365L	Num = Actual number of days within the accrual period Den = 366 if the accrual period end date (D2.M2.Y2) falls in a leap year else 365
	DCF = Num/Den
NL/365	Num: If the Leap day (29th Feb) does not fall within the accrual period then, Actual number of days within the accrual period Otherwise, Actual number of days within the accrual period - 1 Den=365
	DCF = Num/Den
30/360 ISDA	Num: 1. If D1 = 31, Set D1 = 30 2. If D1 = 30 after applying 1 and D2 = 31, Set D2 = 30 3. Num = (D2 – D1) + 30 * (M2 – M1) + 360 * (Y2 – Y1) Den = 360
	DCF = Num/Den
30E/360	Num: 1. If D1 = 31, Set D1 = 30 2. If D2 = 31, Set D2 = 30 3. Last day of February not treated specially 4. Num = (D2 – D1) + 30 * (M2 – M1) + 360 * (Y2 – Y1) Den = 360
	DCF = Num/Den Num:
30E+/360	1. If D1 = 31, Set D1 = 30 2. If D2 = 31, Set D2.M2.Y2 to the 1st day of the next month - (D2 = 1, Y2 = Y2 + Integer part of (M2+1)/12, M2= M2 + 1 Mod 12) 3. Num = (D2 – D1) + 30 * (M2 – M1) + 360 * (Y2 – Y1) Den = 360
	DCF = Num/Den
30/360 German	Num: 1. If D1 (and/or D2) = 31, Set D1 (and/or D2) = 30 2. If D1.M1.Y1 (and/or D2.M2.Y2) falls on the last day of the February set use D1 = 30 (and/or D2 = 30) 3. Num = (D2 – D1) + 30 * (M2 – M1) + 360 * (Y2 – Y1) Den = 360

Day count
method

DCF calculation

DCF = Num/Den

Num:

1. If D2.M2.Y2 is the last day of February (28 in a non leap year; 29 in a leap year) and

D1.M1.Y1 is the last day of February, Set D2 = 30

2. If D1 is the last day of February, Set D1 = 30

3. If D2 = 31 and D1 = 30 or 31, Set D2 = 30

4. If D1 = 31, Set D1 = 30

Den = 360

30/360 US

Below are few of the examples chosen to highlight the differences between the stated conventions

Example 1

Let us assume D1.M1.Y1 = 28/12/2007 and D2.M2.Y2 = 28/2/2008 (Remember Y2 is Leap).

Table 3: DCF calculations (1/4)

Convention	Calculation	DCF
Act/Act	4/365+58/366	0.16942884946478
Act/365F	62/365	0.16986301369863
Act/360	62/360	0.172222222222222
Act/365A	62/365	0.16986301369863
Act/365L	62/366	0.169398907103825
NL/365	62/365	0.16986301369863
30/360 ISDA	60/360	0.166666666666667
30E/360	60/360	0.166666666666667
30E+/360	60/360	0.166666666666667
30/360 German	60/360	0.166666666666667
30/360 US	60/360	0.166666666666667

Example 2

Now let us suppose D1.M1.Y1 = 28/12/2007 and D2.M2.Y2 = 29/2/2008 (Remember Y2 is Leap).

Table 4: DCF calculations (2/4)

Convention	Calculation	DCF
Act/Act	4/365+59/366	0.172161089901939
Act/365F	63/365	0.172602739726027
Act/360	63/360	0.175
Act/365A	63/366	0.172131147540984
Act/365L	63/366	0.172131147540984
NL/365	62/365	0.16986301369863
30/360 ISDA	61/360	0.169444444444444
30E/360	61/360	0.169444444444444
30E+/360	61/360	0.169444444444444
30/360 German	62/360	0.172222222222222
30/360 US	61/360	0.169444444444444

Example 3

Now let us suppose D1.M1.Y1 = 31/10/2007 and D2.M2.Y2 = 30/11/2008 (Remember Y2 is Leap).

Table 5: DCF calculations (3/4)

Convention	Calculation	DCF
Act/Act	62/365+334/366	1.08243131970956
Act/365F	396/365	1.08493150684932
Act/360	396/360	1.10000000000000
Act/365A	396/366	1.08196721311475
Act/365L	396/366	1.08196721311475
NL/365	395/365	1.08219178082192
30/360 ISDA	390/360	1.08333333333333
30E/360	390/360	1.08333333333333
30E+/360	390/360	1.08333333333333
30/360 German	390/360	1.08333333333333
30/360 US	390/360	1.08333333333333

Example 4

Let's take one last example. D1.M1.Y1 = 2/1/2008 and D2.M2.Y2 = 5/31/2009

Table 6: DCF calculations (4/4)

Convention	Calculation	DCF
Act/Act	335/366+150/365	1.32625945055768
Act/365F	485/365	1.32876712328767
Act/360	485/360	1.34722222222222
Act/365A	485/366	1.32513661202186
Act/365L	485/365	1.32876712328767
NL/365	484/365	1.32602739726027
30/360 ISDA	480/360	1.33333333333333
30E/360	479/360	1.33055555555556
30E+/360	480/360	1.33333333333333
30/360 German	479/360	1.33055555555556
30/360 US	480/360	1.33333333333333

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