EVERY DAY COUNTS

DOUG WILLIAMSON EXPLAINS DAY COUNT CONVENTIONS, AND WHY THEY ARE SO IMPORTANT

Most organisations pay or receive interest – often both. The amounts of interest are determined by day count conventions. Conventions differ between markets, resulting in different interest amounts. Understanding the differences can help identify the best deals, and avoid bad ones.

Day count convention

Interest rates and discount rates are conventionally quoted per annum, even when the interest period is longer or shorter. For periods shorter than a year, the amount of interest is usually worked out using a fraction.

This fraction is set by the day count convention. For example:

ACT/ACT

This convention means the actual number of days in the interest period divided by the actual number of days in the year.

How many days in three months?

To apply an actual day count convention, we need to know the exact number of actual days, or nights, in the period. This is driven by the days in each month.

Because of the varying lengths of calendar months, adding up the days in three consecutive months results in periods of 89, 90, 91 or 92 days.

How many days in six months?

Again, it depends. Let's say we invest money on 15 June until 15 December. Consider the month ends spanned by the interest period. These are June to November inclusive. The number of days in these months are 30, 31, 31, 30, 31 and 30. Adding all the days together gives a total of **183** days.

Starting in a different month, the answer might be different. Have a go at working out the other possible numbers of days in six-month-long periods. (*Check your answer.)

If the start and finish days of the month differ, for example, 15 June and 13 December, we need to make an adjustment for the difference. In this case we'd subtract 15 – 13 = 2 days.

Working out interest

First, we need to know the day count convention that applies to the market we're working in. Let's say we're in the US dollar money market, depositing \$10m for a 183-day period, at an interest rate of 1.6% per annum.

The day count convention for the US dollar money market is:

ACT/360

This means the actual number of days in the period divided by 360.

Applying this convention, the amount of interest is:

\$10m x 0.016 x 183/360
= **\$81,333**

Different conventions

If the day count convention were different, the amount of interest would be different. Conventions vary depending on the market, location and currency.

For example, the sterling money market uses ACT/365 fixed, meaning the conventional year is 365 days long in all years, including leap years.

Explore more examples at wiki.treasurers.org/wiki/Day_count_conventions

Key takeaway

Every day you invest in learning will pay handsome returns. Sharpen and demonstrate your treasury skills at www.treasurers.org/professional-standards/qualifications/syllabi

From treasury to CFO

"My career plan was always to become a broadly based finance specialist. That's why I took the ACT's qualifications and served a stint in treasury. Some CFOs don't really understand or know treasury. That's scary. It's a huge gap in their technical skills.

"Though I never intended to become a career treasury specialist, I enjoyed the challenge of treasury immensely. I loved making every day count."

Andre Khor FCT,
ACT Student of the Year 2011
CFO, Trading at Golden Agri-Resources

Doug Williamson FCT is a treasury and finance coach

***Answer:** Six-month periods can also last 181, 182 or 184 days