

# Subject CT1

## Corrections to 2014 study material

### **Comment**

This document contains details of any errors and ambiguities in the Subject CT1 study materials for the 2014 exams that have been brought to our attention. We will incorporate these changes in the study material each year. We are always happy to receive feedback from students, particularly details concerning any errors, contradictions or unclear statements in the courses. If you have any such comments on this course please email them to [CT1@bpp.com](mailto:CT1@bpp.com).

You may also find it useful to refer to the Subject CT1 threads on the Actuarial Discussion Forum. (You can reach the Forum by clicking on the "Discussion Forums" button at the top of ActEd's website, or by going to [www.acted.co.uk/forums/](http://www.acted.co.uk/forums/).)

### **Chapter 14**

(updated on 7 January 2014)

#### **Page 20**

The final sentence on this page should refer to “effective duration” not “convexity”. So, it should read:

Note that effective duration is denoted by the Greek letter nu ( $\nu$ ) rather than a  $v$ .

### **Chapter 15**

(updated on 22 July 2014)

#### **Page 34**

In Solution 15.7 there is a typo in the equation below the table. It should read:

$$\text{var}[A_5] = m_5 - (E[A_5])^2 = 31.73933018 - 5.6329755^2 = 0.0089172$$

**Assignment X3, Question X3.11(i)(d)**

(updated on 3 March 2014)

This question states that the dividends are paid “annually in arrear”, but it is not clear whether this refers to years from the start of the contract, or calendar years. In either case, the published solution is incorrect.

If it is assumed that dividends are paid annually from the start of the contract, then since we have a six-month contract, no dividend will be paid during the term of the contract, so the answer will be the same as (i)(a), *ie* £3,212.38.

If it is assumed that dividends are paid at the end of each calendar year, then the correct forward price is:

$$K = S_0(1+i)^{1/2}(1+D)^{-1} = 3,212.38 \times 1.03^{-1} = \text{£}3,118.82$$

The power on the dividend factor is  $-1$ , because the full *annual* dividend of 3% is payable on 31 December.