Osborne Books

Cash and Financial Management

Redemption yield supplement

This supplement provides an explanation of the calculation of redemption yields which was omitted from the Osborne Books Tutorial Book for the Q2022 Cash and Financial Management unit.

This should be studied in conjunction with page 207 of the Cash and Financial Management Tutorial.

The final sentence on page 207 of the Cash and Financial Management tutorial should be removed, ie remove 'You will not be required to calculate redemption yield rates in your assessments.'

calculating redemption yields

The redemption calculation yield is carried out in two stages.

The first stage is to calculate the interest yield based on the interest rate as a percentage of the market price. A calculation of the approximate yield due to the redemption amount being different to the market price must then added to, or deducted from, this interest yield.

This is calculated as: $\underline{\text{(gain or loss on maturity / number of remaining years)}}$ x 100
                                                                    market value

Where there is a **gain** at maturity because the market price is lower than the amount to be repaid at redemption, the result of this calculation is **added** to the interest yield. Where there is a **loss**, because the market value is higher than the redemption amount, the calculated amount is **deducted** from the interest yield.

example 1

A bond with an interest rate of 4.400% and a nominal value of £1.00 has a market price of £1.10. The bond has a redemption date in five years' time, when the nominal value will be repaid. Calculate redemption yields (round yields to 3 decimal places).

The **interest yield** will be 4.400% / £1.10 = **4.000%**

The adjustment to account for redemption will be a deduction (because there will be a loss on maturity), which is calculated as:

((£0.10 / 5 years) / £1.10) x 100   =   (£0.02 / £1.10) x 100   = 1.818%

Therefore, the **redemption yield** will be   4.000% - 1.818%   = **2.182%**

example 2

A gilt with an interest rate of 2.00%, and a nominal value of £1.00, has a market price of £0.70. The maturity date is in 12 years' time. Calculate redemption yields (round yields to 2 decimal places).

The **interest yield** will be 2.00% / £0.70 = **2.86%** (rounded)

The adjustment for redemption, which will be added on because it is a gain, is:

((£0.30 / 12 years) / £0.70) x 100 =   (£1.025 / £0.70) x 100   = 3.57%

The **redemption yield** will be   2.86% + 3.57%   = **6.43%**