

## FA Module 8 Diluted EPS for convertible preferred shares practice exam questions

covering common shares, preferred shares, convertible preferred shares, net income available to common shareholders, basic earnings per share, dividend payout ratio, earnings retention rate, if-converted method numerator, if-converted method denominator, diluted earnings per share

(The attached PDF file has better formatting.)

In 20XX, a firm has net income of 2,170. Its capital structure consists of

- ! 510 common shares outstanding
- ! 15 convertible preferred shares outstanding, convertible into 8 common shares each

In 20XX, the firm pays dividends of 4.30 per common share and 9.00 per convertible preferred share.

Question 8.1: Net income available to common shareholders

What is the firm's net income available to common shareholders?

Answer 8.1:  $2,170 - 15 \times 9 = 2,035$

(net income available to common shareholders = net income minus dividends paid to preferred shareholders)

Question 8.2: Basic earnings per share

What is the firm's basic earnings per share?

Answer 8.2:  $2,035 / 510 = 3.990$

(net income available to common shareholders / weighted average common shares outstanding)

Question 8.3: Dividend payout ratio

What is the firm's dividend payout ratio?

Answer 8.3:  $4.30 / 3.990 = 107.77\%$

(Dividends per share / earnings per share; firm paid more as shareholder dividends than it earned)

Question 8.4: Earnings retention rate

What is the firm's earnings retention rate?

Answer 8.4:  $1 - 107.77\% = -7.77\%$

(earnings retention rate = complement of dividend payout ratio)

Question 8.5: If-converted method numerator

What would net income be if the convertible preferred shares had been converted at the beginning of the year?

Answer 8.5:  $2,035 + 15 \times 9.00 = 2,170$

(net income available to common shareholders + preferred shares outstanding  $\times$  preferred share dividend)

Question 8.6: If-converted method denominator

What would the weighted average common shares outstanding be if the convertible preferred shares had been converted at the beginning of the year?

Answer 8.6:  $510 + 15 \times 8 = 630$

(weighted average common shares outstanding + preferred shares outstanding  $\times$  conversion rate)

Question 8.7: Diluted earnings per share

What is the firm's diluted earnings per share?

Answer 8.7:  $2,170 / 630 = 3.444$