

FA Module 7 DuPont analysis reverse practice exam questions

(The attached PDF file has better formatting.)

A firm has

- an effective tax rate of 10%
- an interest coverage ratio of 6.2
- an EBIT (earnings before interest and taxes) margin of 42%
- total asset turnover of 0.43
- financial leverage of 1.9

Question 7.1: Tax burden

What is the firm's tax burden?

Answer 7.1: $1 - 10\% = 90\%$

(tax burden = complement of tax rate)

Question 7.2: Interest burden

What is the firm's interest burden?

Answer 7.2: $1 - 1 / 6.2 = 83.87\%$

(interest burden = $EBT / EBIT = (EBIT - \text{interest expense}) / EBIT = 1 - 1 / \text{interest coverage ratio}$)

Question 7.3: Net profit margin

What is the firm's net income margin (net profit margin)?

Answer 7.3: $42\% \times 90\% \times 83.87\% = 31.70\%$

(net income margin = the EBIT margin \times the interest burden \times the tax burden)

Question 7.4: Return on assets

What is the firm's return on assets?

Answer 7.4: $31.70\% \times 0.43 = 13.63\%$

(return on assets = net income margin \times asset turnover ratio)

Question 7.5: Return on equity

What is the firm's return on equity?

Answer 7.5: $13.63\% \times 1.9 = 25.90\%$

(return on equity = return on assets \times financial leverage)