# Growth.docx Effects of time on financial accounting relationships

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## Part BA Basic dynamic accounting relationships

*BA8m Find next year's share price given BS and ratios*

The Company balance sheet for year-end 2525 shows *Total assets* of $3,600 financed by *Debt* of $900 and *Stockholders’ equity* of $2,700 . For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 2.2, a net profit margin (= net income ÷ sales) of 8.00%, and a dividend payout ratio (= dividends ÷ net income) of 65%. There are 250 shares outstanding and, at year-end 2525, the price-to-earnings ratio is 18.2. Throughout year 2526 no additional shares are issued, and the price-to-earnings ratio remains unchanged.

{xlADDRESS: FA1!$B$10 ; CLUES: 2526 book value/share = $11.69 }

### BA8am Find next year's share price given BS and ratios

Find the share price at year-end 2526?

{ANSWER: E ; xlADDRESS: FA1!$B$26}

/\a. $55.81 b. $67.53 c. $61.39 d. $50.74 e. $46.13

### BA8bm Find stock ror given BS and ratios

Suppose that the net income is 6.7% larger in 2526 than in 2525. Find the shareholder annual rate of return for year 2526.

{ANSWER: E ; xlADDRESS: FA1!$F$26 }

/\a. 13.9% b. 12.1% c. 16.0% d. 18.4% e. 10.5%

### BA15 Find new issues and dividends consistent with change in SE

The Company balance sheet for year-end 2525 shows *Total assets* of $3,300 financed by *Debt* of $1,551 and *Stockholders’ equity* of $1,749 . For year 2526 the company forecasts Net income of $406 . The balance sheet at year-end 2526 lists Stockholders Equity of $2,018 . You are certain the company repurchased zero stocks during 2526. Which statement about the company’s actions during year 2526 is most consistent with the preceding facts?

{ANSWER: C ; xlADDRESS: FA1!$B$992 }

/\a. the company paid $397 in dividends and issued stock worth $208

/\b. the company paid $300 in dividends and issued stock worth $181

/\c. the company paid $345 in dividends and issued stock worth $208

/\d. the company paid $397 in dividends and issued stock worth $181

/\e. the company paid $345 in dividends and issued stock worth $181

### BA1a find new Stockholders Equity given 1 balance sheet and income ratios

The Company balance sheet for year-end 2525 shows *Total assets* of $4,500 financed by *Debt* of $1,700 and *Stockholders’ equity* of $2,800 . For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 4.2, a net profit margin (= net income ÷ sales) of 8.60%, and a dividend payout ratio (= dividends ÷ net income) of 55%. There are 280 shares outstanding. If no additional shares are issued, what is Stockholders Equity at year-end 2526?

{ANSWER: B ; xlADDRESS: FA1!$B$345 CLUES: Net Income2526 = $1,625 }

/\a. $2,919 b. $3,531 c. $3,885 d. $2,653 e. $3,210

### BA1b find new equity book value given 1 balance sheet and income ratios

The Company balance sheet for year-end 2525 shows *Total assets* $4,500 of financed by *Debt* of $1,700 and *Stockholders’ equity* of $2,800 . For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 4.2, a net profit margin (= net income ÷ sales) of 8.60%, and a dividend payout ratio (= dividends ÷ net income) of 55%. There are 280 shares outstanding. If no additional shares are issued, what is the equity book value per share at year-end 2526?

{ANSWER: D ; xlADDRESS: FA1!$F$345 CLUES: Net Income2526 = $1,625 }

/\a. $11.47 b. $16.79 c. $13.87 d. $12.61 e. $15.26

### BA1c find new shareprice given one balance sheet, p/e, and income ratios

The Company balance sheet for year-end 2525 shows *Total assets* of $4,500 financed by *Debt* of $1,700 and *Stockholders’ equity* of $2,800 . For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 4.2, a net profit margin (= net income ÷ sales) of 8.60%, and a dividend payout ratio (= dividends ÷ net income) of 55%. There are 280 shares outstanding, and, at year-end 2525, the price-to-earnings ratio is 19.2. If no additional shares are issued, and the price-to-earnings ratio remains unchanged, what is the shareprice at year-end 2526?

{ANSWER: D ; xlADDRESS: FA1!$J$345 }

/\a. $148.35 b. $134.86 c. $101.32 d. $111.46 e. $122.60

### BA1d find new shareprice given one balance sheet, p/b, and income ratios

The Company balance sheet for year-end 2525 shows *Total assets* of $4,500 financed by *Debt* of $1,700 and *Stockholders’ equity* of $2,800 . For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 4.2, a net profit margin (= net income ÷ sales) of 8.60%, and a dividend payout ratio (= dividends ÷ net income) of 55%. There are 280 shares outstanding and, at year-end 2525, the equity price-to-book ratio is 8.8. If no additional shares are issued, and the price-to-book ratio remains unchanged, what is the shareprice at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$N$345 }

/\a. $111.46 b. $134.86 c. $122.60 d. $148.35 e. $163.18

*Multiple setup (BA2m)*

The Company balance sheet for year-end 2525 shows *Total assets* $4,000 of financed by *Debt* of $1,100 and *Stockholders’ equity* of $2,900 . For 600 common shares outstanding, the equity price-to-book ratio is 1.14. During 2526, they expect sales equal to $22,000 and a gross margin (= (sales – cost-of-goods-sold) ÷ sales) of 27%; selling-general and administrative expenses are nil. Depreciation is expected to equal $800 and interest charges will equal 12% of Debt. Corporate taxes equal 32% of taxable income, and the dividend payout ratio (=dividends ÷ net income) is 65%. Suppose the company has no intention of borrowing more money or buying more assets.

{xlADDRESS: FA1!R353C1 ; CLUES: new retained earnings = $4,092 }

### BA2am Find net income given one balance sheet and ratios

What is net income for 2526?

{ANSWER: E ; xlADDRESS: FA1!$B$370 }

/\a. $4,986 b. $3,746 c. $4,121 d. $4,533 e. $3,405

### BA2bm Find new SE given one balance sheet and ratios

What is Stockholders Equity for 2526?

{ANSWER: D ; xlADDRESS: FA1!$F$370 }

/\a. $3,382 b. $4,951 c. $3,720 d. $4,092 e. $4,501

### BA2cm Find new shareprice given one balance sheet and ratios

What is the shareprice for year-end 2526 if the equity price to book ratio were to remain constant?

{ANSWER: D ; xlADDRESS: FA1!$J$370 }

/\a. $8.55 b. $5.84 c. $6.43 d. $7.77 e. $7.07

### BA2dm Find %change shareprice given one balance sheet and ratios

What would be the percentage change in shareprice for 2526 that could be supported if the equity price to book ratio were to remain constant?

{ANSWER: E ; xlADDRESS: FA1!$N$370 }

/\a. 34.0% b. 37.4% c. 30.9% d. 28.1% e. 41.1%

### BA16 Find ROR given P(0), P(1), and div(1)

You buy a stock at today’s price of $44.00 . You expect that in one year you’ll receive an annual dividend of $3.96 , after which time you’ll immediately sell the stock for $51.48 . Find the shareholder’s annual rate of return for this stock.

{ANSWER: E ; xlADDRESS: FA1!$B$1006 }

/\a. 21.5% b. 23.6% c. 28.6% d. 31.5% e. 26.0%

### BA11a Contrast ROR and ROE (numerically) given ratios

For year 2526 the company forecasts sales of $70,000 , an asset turnover ratio (= salest ÷ total assetst-1 ) of 2.3,a net profit margin (= net income ÷ sales) of 6.0%, a dividend payout ratio (=dividends ÷ net income) of 80%, and a debt-to-equity ratio (= total debt ÷ stockholders equity) of 174%. The company expects the equity price-to-book ratio of 1.30 to remain constant. Contrast for year 2526 the shareholder’s book return-on-equity (= net incomet ÷ stockholder’s equityt-1 ) and market rate of return.

{ANSWER: A ; xlADDRESS: FA1!$B$736 CLUES: SE2525 = $11,108 , SE2526 =$11,948 }

/\a. the book return-on-equity is 37.8% whereas the market rate of return is 30.8%

/\b. the book return-on-equity is 32.9% whereas the market rate of return is 30.8%

/\c. the book return-on-equity is 32.9% whereas the market rate of return is 35.5%

/\d. the book return-on-equity is 28.6% whereas the market rate of return is 30.8%

/\e. the book return-on-equity is 37.8% whereas the market rate of return is 35.5%

### BA11b Contrast ROR and ROE (qualitatively) given ratios

For year 2526 the company forecasts sales of $70,000 , an asset turnover ratio (= salest ÷ total assetst-1 ) of 2.3,a net profit margin (= net income ÷ sales) of 6.0%, a dividend payout ratio (=dividends ÷ net income) of 80%, and a debt-to-equity ratio (= total debt ÷ stockholders equity) of 174%. The company expects the equity price-to-book ratio of 1.30 to remain constant. Contrast for year 2526 the shareholder’s book return-on-equity (= net incomet ÷ stockholder’s equityt-1 ) and market rate of return.

{ANSWER: E ; xlADDRESS: FA1!$F$736 CLUES: SE2525 = $11,108 }

/\a. the book return-on-equity is 43.5% whereas the market rate of return is bigger.

/\b. the book return-on-equity is 37.8% whereas the market rate of return is bigger.

/\c. the book return-on-equity is 32.9% whereas the market rate of return is smaller.

/\d. the book return-on-equity is 32.9% whereas the market rate of return is bigger.

/\e. the book return-on-equity is 37.8% whereas the market rate of return is smaller.

*BA9m multiple setup*

The Company balance sheet for year-end 2525 shows that *Total assets* of $5,700 include *Plant, property, & equipment (PP&E)* of $3,400 *.* The assets are financed by *Debt* of $1,500 and *Stockholders’ equity* of $4,200 (there are 500 shares outstanding). For year 2526 the company forecasts sales of $15,390 , a net profit margin (= net income ÷ sales) of 8.5%, a dividend payout ratio (=dividends ÷ net income) of 60%, and depreciation that is 17% of beginning-of-year PP&E. Throughout year 2526 Debt remains unchanged. The company expects to make capital expenditures such that for the year-end 2526 balance sheet PP&E is $500 larger than it is on the 2525 balance sheet above.

{xlADDRESS: FA1!$B$48 ; CLUES: capital exp.= $1,078 , new RE = $523 }

### BA9am Find next year's SE given depreciation, ΔPPE, and 100% new equity

Suppose capital expenditures are financed exclusively by issuing new equity. Find Stockholders’ equity at year-end 2526.

{ANSWER: C ; xlADDRESS: FA1!$B$48 }

/\a. $7,721 b. $5,274 c. $5,801 d. $6,381 e. $7,020

### BA9bm Find next year's Debt given depreciation, ΔPPE, and new Debt after exhausting New Retained Earnings

Suppose capital expenditures are financed from *New retained earnings* until that source of internal financing is totally exhausted. Then the company takes out loans (Debt) to finance the remaining capital expenditures. Find the balance sheet entry for Debt at year-end 2526.

{ANSWER: E ; xlADDRESS: FA1!$F$48 }

/\a. $2,260 b. $1,868 c. $2,486 d. $1,698 e. $2,055

### BA9cm Find ROR given p/b, depreciation, ΔPPE, and 100% new equity

Suppose the *Capital expenditure* is financed exclusively by issuing new equity at the stock price of year-end 2525. Also, suppose the equity price-to-book ratio is constant at 2.4 . Find the stockholder’s annual rate of return for year 2526.

{ANSWER: B ; xlADDRESS: FA1!$J$48;; CLUES: #shares(2526)= 553 }

/\a. 26.3% b. 31.8% c. 35.0% d. 28.9% e. 23.9%

*BA10m Multipart single-setup*

The Company balance sheet for year-end 2525 shows that *Total assets* of $8,400 include *Plant, property, & equipment (PP&E)* of $4,500 *.* The assets are financed by *Debt* of $2,400 and *Stockholders’ equity* of $6,000 (there are 400 shares outstanding). For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 2.0, a net profit margin (= net income ÷ sales) of 8.1%, a dividend payout ratio (=dividends÷net income) of 65%, and depreciation that is 20% of beginning-of-year PP&E. Throughout year 2526 Debt remains unchanged, and the P/B ratio of 3.5 is expected to remain constant. The company expects to make *Capital expenditures* such that for the year-end 2526 balance sheet PP&E is $200 larger than on the 2525 balance sheet. Suppose the *Capital expenditure* is financed exclusively by issuing new shares at the stock price of year-end 2525.

{xlADDRESS: FA1!$B$712 ; CLUES: capital expenditures = $1,100 ; new retained earnings = $476 ; price2525= $52.50 ; price2526=$62.99 }

### BA10am Use the PP&E relation to find SE(2526)

Find Stockholders’ equity at year-end 2526.

{ANSWER: C ; xlADDRESS: FA1!$B$712 }

/\a. $8,334 b. $6,888 c. $7,576 d. $6,261 e. $5,692

### BA10bm Use the PP&E relation to find #shares needed to finance expenditures

Find how many new shares the company must issue to finance the capital expenditure.

{ANSWER: E ; xlADDRESS: FA1!$F$712 }

/\a. 28 b. 33 c. 18 d. 24 e. 21

### BA10cm Use the PP&E relation to find shareholder ROR for 2526

Find the shareholder rate of return on the company common stock between 12/31/2525 and 12/31/2526.

{ANSWER: B ; xlADDRESS: FA1!$J$712 }

/\a. 27.3% b. 24.0% c. 40.5% d. 35.5% e. 31.2%

### BA10dm Use the PP&E relation to find AND(#shares,SE)

How many new shares the company must issue to finance the capital expenditure, and what will be the new *Stockholders equity* at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$B$720 }

/\a. issuing 21 shares will finance the expenditure, and *SE* will become $7,576

/\b. issuing 18 shares will finance the expenditure, and *SE* will become $6,588

/\c. issuing 21 shares will finance the expenditure, and *SE* will become $6,588

/\d. issuing 24 shares will finance the expenditure, and *SE* will become $7,576

/\e. issuing 18 shares will finance the expenditure, and *SE* will become $7,576

*BA6 eExam setup for rtf*

*Assets 12/31/2525*

$2,350 Current assets

$3,200 PP&E

$5,550 Total assets

*Liabilities & Equity 12/31/2525*

$1,350 Debt

$4,200 Stockholders’ equity

$5,550

*Income, 1/1 – 12/31/2525*

$22,755 Sales

- $21,340 total costs

= net income $1,415

### BA6 DuPont analysis and inference between company and industry

The DuPont formula relates return on equity (= *Net incomet ÷ Stockholders equityt*) to the company's net profit margin (= *Net income ÷ Sales*), asset turnover (= *Salest ÷ Total assetst*), and equity multiplier (= *Total assets ÷ Stockholders equity*). The Company’s financial statements for year 2525 show

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$2,350 Current assets $1,350 Debt Sales $22,755

$3,200 PP&E $4,200 Stockholders’ equity total costs $21,340

$5,550 Total assets $5,550 net income $1,415

This Company is in an industry where the average net profit margin is 7.34%, the debt-to-asset ratio (= *Debt* ÷ *Total assets*) is 25.1%, and return on equity is 40.96%. For the company relative to the industry, select the one statement most consistent with the DuPont analysis.

{ANSWER: E ; xlADDRESS: FA1!$B$393 CLUES: company v. industry: profit margin (6.22% 7.34% ); debt ratio (24.3% 25.1% ); asset turnover (4.10 4.18 )}

/\a. the company’s equity multiplier indicates the firm has an unusually small debt burden

/\b. the company’s asset turnover indicates sales are unusually small relative to its assets

/\c. the company’s profit margin indicates its revenues are unusually large relative to its costs

/\d. the company’s asset turnover indicates sales are unusually large relative to its assets

/\e. the company’s profit margin indicates its revenues are unusually small relative to its costs

### BA7 Find the ROE given inputs to Dupont formula

The return on equity (= net income ÷ Stockholders equity) is one of the more important measures of company performance. Suppose a company's net profit margin (= net income ÷ sales) is 7.4%, asset turnover (= sales ÷ total assets) is 4.2, and debt-to-total assets ratio is 55%. What is this company’s return on equity?

{ANSWER: E ; xlADDRESS: FA1!$B$406 }

/\a. 62.8% b. 76.0% c. 57.1% d. 51.9% e. 69.1%

*Multiple setup (BA3m)*

The Company balance sheet for year 2525 shows that *Total assets* of $3,600 are financed by *Debt* of $200 and *Stockholders’ equity* of $3,400 . There are 430 shares outstanding at year-end 2525. The company plans to obtain venture capital by selling 160 additional shares at their current book value to a venture capitalist. The company agrees to repurchase the shares at year-end 2526 at a price equal to 138% of that year’s book value. For year 2526 the company forecasts sales of $28,800 , a net profit margin (= net income ÷ sales) of 12.50%, and a dividend payout ratio (= dividends ÷ net income) of 45%. Assume debt remains unchanged.

{xlADDRESS: FA1!R414C1 ; CLUES: Net Income2526 = $3,600 ; Venture financing2525 = $1,265 ; repurchase price = $15.54 }

### BA3am how much does venture capitalist receive in a one-period model

How much total cash flow (dividends plus repurchase price) does the venture capitalist receive at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$B$431 }

/\a. $2,926 b. $3,894 c. $4,284 d. $3,218 e. $3,540

### BA3bm What is repurchase price in a one-period venture capitalist model

How much is the equity repurchase shareprice at year-end 2526?

{ANSWER: C ; xlADDRESS: FA1!$F$431 }

/\a. $22.75 b. $17.09 c. $15.54 d. $20.68 e. $18.80

### BA3cm What is ROR in a one-period venture capitalist model

What is the rate of return for the venture capitalist on this investment?

{ANSWER: E ; xlADDRESS: FA1!$J$431 }

/\a. 175% b. 159% c. 192% d. 144% e. 131%

*Multiple setup(BA4m)*

The Company balance sheet for year 2525 shows *Total assets* of $4,800 financed by *Debt* of $900 and *Stockholders’ equity* of $3,900 . There are 330 shares outstanding at year-end 2525. The company plans to obtain venture capital by selling 160 additional shares at their current book value to a venture capitalist. The company agrees to repurchase the shares at year-end 2527 at a price equal to 136% of that year’s book value. For year 2526 the company forecasts sales of $21,120 , a net profit margin (= net income ÷ sales) of 10.50%, and a dividend payout ratio (= dividends ÷ net income) of 40%. Assume debt remains unchanged. For year 2527, sales should be higher by 16% but the net profit margin and payout ratio should remain constant. Also, assume that debt remains unchanged.

{xlADDRESS: FA1!R414C1 ; CLUES: Net Income2526 = $2,218 ; Venture financing2525 = $1,891 ; repurchase price = $24.05 }

### BA4am Find 2nd year’s cash flow in two-period venture capitalist model

How much total cash flow (dividends plus repurchase price) does the venture capitalist receive at year-end 2527?

{ANSWER: C ; xlADDRESS: FA1!$B$439 }

/\a. $2,858 b. $3,143 c. $4,184 d. $3,458 e. $3,804

### BA4bm Find 2nd year’s repurchase price in two-period venture capitalist model

How much is the equity repurchase shareprice at year-end 2527?

{ANSWER: D ; xlADDRESS: FA1!$F$439 }

/\a. $29.10 b. $19.88 c. $26.46 d. $24.05 e. $21.86

### BA5 How much is net cash flow in a simple income statement

On December 31, 2525, the income statement shows:

*Income, 1/1 – 12/31/2525*

$480,000 Sales

$312,000 ‑ cost of goods sold

$48,000 ‑ depreciation

$120,000 = operating income

$15,600 ‑ interest expense

$104,400 = taxable income

$41,760 ‑ taxes due

$62,640 = net income

$20,045 ‑ dividends

$42,595 = new retained earnings

How much is *net cash flow* for the year 2525?

{ANSWER: A ; xlADDRESS: FA1!$B$460 }

/\a. $110,640 b. $121,704 c. $133,874 d. $91,438 e. $100,582

*BA17m Multipart single-setup*

At year-end 2525 the company has total assets of $8,900 financed by Debt of $3,900 and Stockholders’ equity of $5,000 . For year 2526 the company forecasts an asset turnover ratio (= *Sales2526 ÷ Total assets2525*) of 2.1, a net profit margin of 7.10%, and a dividend payout ratio of 30%. There are 130 shares outstanding. During year 2526 no additional shares are issued.

{xlADDRESS: FA1!$B$1021; CLUES: Net income = $1,327 }

### BA17am Find book value per share next year given asset turnover and net margin

Find the equity book value per share at year-end 2526.

{ANSWER: E ; xlADDRESS: FA1!$B$1021 }

/\a. $50.17 b. $37.69 c. $55.18 d. $41.46 e. $45.61

### BA17bm Find earnings per share next year given asset turnover and net margin

Find the earnings per share at year-end 2526.

{ANSWER: B ; xlADDRESS: FA1!$F$1021 }

/\a. $11.23 b. $10.21 c. $8.44 d. $9.28 e. $7.67

### BA17cm Find AND(eps, book value) next year given asset turnover and net margin

Find the earnings and equity book value per share at year-end 2526.

{ANSWER: E ; xlADDRESS: FA1!$J$1021 }

/\a. the *eps* is $7.72 and book value per share equals $45.61

/\b. the *eps* is $10.21 and book value per share equals $39.66

/\c. the *eps* is $8.88 and book value per share equals $39.66

/\d. the *eps* is $7.72 and book value per share equals $39.66

/\e. the *eps* is $10.21 and book value per share equals $45.61

### BA12a Find stock price next year given sales net margin, and changing p/b

At year-end 2525, Stockholder’s Equity is $3,600 and there are 100 common shares outstanding. For 2526, sales should equal $11,520 , the net profit margin (= net income ÷ sales) is 6.60%, the payout ratio (=dividends ÷ net income) is 60%, and no shares are issued or repurchased. If the equity price-to-book ratio at year-end 2525 is 0.66, and it moves to 0.75 at year-end 2526, what is the shareprice at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$B$482 }

/\a. $29.28 b. $22.00 c. $26.62 d. $20.00 e. $24.20

### BA12b Find shareholder ROR given sales net margin, and changing p/b

At year-end 2525, Stockholder’s Equity is $3,600 and there are 100 common shares outstanding. For 2526, sales should equal $11,520 , the net profit margin (= net income ÷ sales) is 6.60%, the payout ratio (=dividends ÷ net income) is 60%, and no shares are issued or repurchased. If the equity price-to-book ratio at year-end 2525 is 0.66, and it moves to 0.75 at year-end 2526, what is the shareholder’s annual rate of return for 2526?

{ANSWER: C ; xlADDRESS: FA1!$F$482 }

/\a. 46.7% b. 56.5% c. 42.4% d. 51.3% e. 38.6%

### BA13 Find stock price next year given asset turnover, net margin, and changing p/b

On January 1, the company has *Total assets* of $8,800 financed by *Debt* of $4,600 and *Stockholders’ equity* of $4,200 ; for 240 common shares outstanding, the equity price-to-book ratio is 0.74. During the subsequent year the company does not issue new shares. They also expect an asset turnover ratio (= *Salest* ÷ *Total assetst-1*) of 2.2; a 5.00% net profit margin; and a 50% payout ratio. If the year-end equity price-to-book ratio were 0.81, what year-end shareprice is forecast?

{ANSWER: E ; xlADDRESS: FA1!$B$890 }

/\a. $21.04 b. $19.13 c. $14.37 d. $17.39 e. $15.81

### BA14 Find stock ROR given asset turnover, net margin, and constant p/e and growing income

At year-end 2525 the company has total assets of $7,000 financed by Debt of $2,600 and Stockholders’ equity of $4,400 . For year 2526 the company forecasts an asset turnover ratio (= sales2526 ÷ total assets2525) of 2.7, a net profit margin of 5.0%, and a dividend payout ratio of 50%. There are 100 shares outstanding and, at year-end 2525, the price-to-earnings ratio is 27.0. Throughout year 2526 no additional shares are issued, and the price-to-earnings ratio remains unchanged. Suppose that the net income is 7.9% larger in 2526 than in 2525. Find the shareholder annual rate of return for year 2526.

{ANSWER: C ; xlADDRESS: FA1!$B$911 CLUES: Net income2526 = $945 ; P2525 =$236.47 }

/\a. 13.2% b. 10.9% c. 9.9% d. 14.5% e. 12.0%

## Part GR Natural growth rates

*GR4 for eExam.rtf*

*Income 1/1 - 12/31/2525*

= $11,100 Sales

- $10,800 Total costs

= $300 Net income

- $170 Dividends

= $130 New retained earnings

### GR4 Find TA next year given components for ginternal

Find below the company’s income statement.

*Income, 1/1 - 12/31/2525*

Sales $11,100

Total costs $10,800

Net income $300

Dividends $170

New retained earnings $130

*Total assets* at 12/31/2525 equal $2,515 . If the company is growing at their internal growth rate, what are *Total assets* at 12/31/2526?

{ANSWER: D ; xlADDRESS: FA1!$B$502 }

/\a. $3,530 b. $3,209 c. $2,411 d. $2,652 e. $2,917

*GR1 for eExam.rtf*

*Income, 1/1 - 12/31/2525*

= $13,200 Sales

- $12,900 all costs

= $300 Net income

- $120 Dividends

= $180 New retained earnings

### GR1 Find TA next year given components for gsustainable

Find below the company’s income statement.

*Income, 1/1 - 12/31/2525*

Sales $13,200

all costs $12,900

Net income $300

Dividends $120

New retained earnings $180

*Total assets* at 12/31/2525 equal $2,440 and the debt-to-assets ratio is 70%. If the company is growing at their sustainable growth rate, what are *Total assets* at 12/31/2526?

{ANSWER: C ; xlADDRESS: FA1!$B$932 }

/\a. $2,210 b. $2,942 c. $3,236 d. $2,674 e. $2,431

*GR2 for eExam.rtf*

*Assets 12/31/2525*

$420 Current assets

+ $2,700 PP&E

= $3,120 Total

*Liabilities & Equity 12/31/2525*

$1,520 Debt

+ $1,600 Stockholders’ equity

= $3,120 Total

*Income, 1/1 – 12/31/2525*

$10,000 Sales

- $9,700 total costs

= $300 net income

- $120 dividends

= $180 New retained earnings

### GR2a Find ginternal given constant p/e and

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. What is the sales growth rate?

{ANSWER: A ; xlADDRESS: FA1!$B$529 CLUES: g = 6.12% ; P2526 = $83.57 }

/\a. 6.1% b. 4.6% c. 8.1% d. 7.0% e. 5.3%

### GR2b Find shareholder ROR given constant p/e and ginternal

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. For the shareholder that buys a share at year-end 2525 and holds the stock through year-end 2526, what is the rate of return?

{ANSWER: C ; xlADDRESS: FA1!$F$529 CLUES: g = 6.12% ; P2526 = $83.57 }

/\a. 9.8% b. 9.0% c. 8.1% d. 10.8% e. 7.4%

### GR2c Find new equity book value given constant p/e and ginternal

The Company’s financial statements for year 2525 show that year-end *Total assets* of $3,120 include *Plant, property, & equipment (PP&E)* of $2,700 *.* The assets are financed by *Debt* of $1,520 and *Stockholders’ equity* of $1,600 . The annual *Sales* equal $10,000 , total costs equal $9,700 , *Net income* equals $300 , *Dividends* equal $120 , and *New retained earnings* equal $180 .

For 2526 the asset turnover (sales/total assets), net profit margin (=net income / sales), payout ratio (=dividends/net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. What is the equity book value per share at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$J$529 CLUES: g = 6.12% ; P2526 = $83.57 }

/\a. $22.39 b. $18.50 c. $20.35 d. $16.82 e. $15.29

### GR2d Find new equity price-to-book ratio given constant p/e and ginternal

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. What is the equity price-to-book ratio at year-end 2526?

{ANSWER: C ; xlADDRESS: FA1!$B$537 CLUES: g = 6.12% ; P2526 = $83.57 }

/\a. 3.39 b. 3.08 c. 3.73 d. 2.80 e. 2.55

### GR2e Find new debt-to-equity ratio given constant p/e and ginternal

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. What is the debt-to-equity ratio at year-end 2526?

{ANSWER: C ; xlADDRESS: FA1!$F$537 CLUES: g = 6.12% ; P2526 = $83.57 }

/\a. 0.77 b. 1.13 c. 0.85 d. 0.93 e. 1.03

### GR2f Find new shareprice given constant p/e and ginternal

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. What is the shareprice at year-end 2526?

{ANSWER: C ; xlADDRESS: FA1!$J$537 CLUES: g = 6.12% ; P2526 = $83.57 }

/\a. $91.93 b. $69.07 c. $83.57 d. $101.12 e. $75.97

### GR2g Find book value per share given constant p/e and gsustainable

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying on internal and external financing such that the debt-to-equity ratio remains constant. What is the equity book value per share at year-end 2526?

{ANSWER: B ; xlADDRESS: FA1!$B$545 CLUES: g = 12.68% ; P2526 = $88.73 }

/\a. $24.79 b. $22.54 c. $18.62 d. $16.93 e. $20.49

### GR2h Find price-to-book given constant p/e and gsustainable

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying on internal and external financing such that the debt-to-equity ratio remains constant. What is the equity price-to-book ratio at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$F$545 CLUES: g = 12.68% ; P2526 = $88.73 }

/\a. 3.94 b. 2.96 c. 4.33 d. 3.25 e. 3.58

### GR2i Find shareprice given constant p/e and gsustainable

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying on internal and external financing such that the debt-to-equity ratio remains constant. What is shareprice at year-end 2526?

{ANSWER: A ; xlADDRESS: FA1!$J$545 CLUES: g = 12.68% ; P2526 = $88.73 }

/\a. $88.73 b. $80.66 c. $60.60 d. $73.33 e. $66.66

### GR2j Find shareholder ROR given constant p/e and gsustainable

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$420 Current assets $1,520 Debt Sales $10,000

$2,700 PP&E $1,600 Stockholders’ equity total costs $9,700

$3,120 Total assets $3,120 net income $300

dividends $120

new retained earnings $180

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), payout ratio (=dividends÷net income) and price-to-earnings ratio (now 21.0) will be constant. The number of shares outstanding is 80. The firm seeks maximum growth by relying on internal and external financing such that the debt-to-equity ratio remains constant. For the shareholder that buys a share at year-end 2525 and holds the stock through year-end 2526, what is the rate of return?

{ANSWER: B ; xlADDRESS: FA1!$N$545 }

/\a. 11.13% b. 14.82% c. 16.30% d. 12.25% e. 13.47%

*GR3 for eExam.rtf*

*Total Assets 12/31/2525*

= $5,400 Current assets

+ $22,000 PP&E

= $27,400

*Total* *Liabilities & Equity 12/31/2525*

= $5,500 Debt

+ $21,900 Stockholders’ equity

= $27,400

*Income, 1/1 – 12/31/2525*

$117,800 Sales

- $109,700 total costs

= $8,100 net income

- $2,670 dividends

= $5,430 New retained earnings

### GR3a Find shareholder ROR given changing p/e and ginternal

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$5,400 Current assets $5,500 Debt Sales $117,800

$22,000 PP&E $21,900 Stockholders’ equity total costs $109,700

$27,400 Total assets $27,400 net income $8,100

dividends $2,670

new retained earnings $5,430

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), and payout ratio (=dividends÷net income) will be constant. The price-to-earnings ratio, 24.4 at year-end 2525, is expected to equal 18.8 at year-end 2526. The number of shares outstanding is 10950. The firm seeks maximum growth by relying exclusively on retained earnings; external financing will be zero. For the shareholder that buys a share at year-end 2525 and holds the stock through year-end 2526, what is the rate of return?

{ANSWER: D ; xlADDRESS: FA1!$B$571 CLUES: g = 24.72% ; P2526 = $17.34 }

/\a. -2.1% b. -1.5% c. -1.7% d. -2.3% e. -1.9%

### GR3b Find shareholder ROR given changing p/e and gsustainable

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$4,050 Current assets $5,750 Debt Sales $62,900

$15,000 PP&E $13,300 Stockholders’ equity total costs $57,600

$19,050 Total assets $19,050 net income $5,300

dividends $1,860

new retained earnings $3,440

For 2526 the asset turnover (sales÷total assets), net profit margin (=net income ÷ sales), and payout ratio (=dividends÷net income) will be constant. The price-to-earnings ratio, 14.9 at year-end 2525, is expected to equal 11.5 at year-end 2526. The number of shares outstanding is 6650. The firm seeks maximum growth by relying on internal and external financing such that the debt-to-equity ratio remains constant. For the shareholder that buys a share at year-end 2525 and holds the stock through year-end 2526, what is the rate of return?

{ANSWER: D ; xlADDRESS: FA1!$F$571 CLUES: g = 34.89% ; P2526 = $12.36 }

/\a. 6.6% b. 6.0% c. 5.5% d. 7.3% e. 8.0%

### GR3c Find the sustainable growth rate

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$5,400 Current assets $5,500 Debt Sales $117,800

$22,000 PP&E $21,900 Stockholders’ equity total costs $109,700

$27,400 Total assets $27,400 net income $8,100

dividends $2,670

new retained earnings $5,430

The price-to-earnings ratio, 24.4 at year-end 2525, is expected to equal 18.8 at year-end 2526. The number of shares outstanding is 10950. The firm seeks maximum growth by relying on internal and external financing such that the debt-to-equity ratio remains constant. Find the sales growth rate.

{ANSWER: C ; xlADDRESS: FA1!$J$571 }

/\a. 36.3% b. 39.9% c. 33.0% d. 43.9% e. 30.0%

### GR5 Find OR(TA,Sales) given sustainable growth rate

Analysts report that the company successfully grows at their sustainable growth rate of 8.6%. Today the company’s total assets equal $321,750 and this past year their sales were $97,500 . What is the likely increase over the next year in the company’s total assets?

{ANSWER: D ; xlADDRESS: FA1!$B$585 }

/\a. $22,868 b. $20,789 c. $30,437 d. $27,670 e. $25,155

## Part EFN Estimating external financing needs

### EFN7 Find source of funds given reduction in average age

The company last year had annual cost-of-goods sold equal to $35,000 and a 7.4 inventory turnover ratio (= *Annual cost-of-goods soldt ÷ Inventoryt* ). The company wants to decrease the average age of inventory by 12 days. If everything else remains exactly the same, how much is the resultant source of funds?

{ANSWER: E ; xlADDRESS: FA1!$B$820 CLUES: Inventory0 = $4,730 ; New average age = days 37.3}

/\a. $1,046 b. $865 c. $951 d. $786 e. $1,151

### EFN1a Static EFN with average age of inventory change; numerical choices

Company sales equal $49,000 for the year ending December 31, the costs-of-goods sold (cgs) equal 80% of sales, and the inventory was replaced about every 80 days (inventory turnover in days = 365 ÷ inventory turnover ratio; inventory turnover ratio = annual cgs ÷ Inventory balance). The Company is considering a change in their inventory ordering policy. As a result, they believe that sales would remain constant in the forthcoming year, yet the length of time that inventory stays on the shelf would change by -29 days (shelf time decreases). If the financing rate for inventories is 10% per year, by how much would they change their annual inventory financing costs?

{ANSWER: C ; xlADDRESS: FA1!$B$605 CLUES: Inventory original = 8592 ; Inventory new = 5477}

/\a. ($538) b. ($646) c. ($311) d. ($448) e. ($374)

### EFN1b Static EFN with average age of inventory change; word choices

Company sales equal $49,000 for the year ending December 31, the costs-of-goods sold (cgs) equal 80% of sales, and the inventory was replaced about every 80 days (inventory turnover in days = 365 ÷ inventory turnover ratio; inventory turnover ratio = annual cgs ÷ Inventory balance). The Company is considering a change in their inventory ordering policy. As a result, they believe that sales would remain constant in the forthcoming year, yet the length of time that inventory stays on the shelf would change by -29 days (shelf time decreases). If the financing rate for inventories is 10% per year, what is the effect on their annual inventory financing costs?

{ANSWER: C ; xlADDRESS: FA1!$B$605 CLUES: Inventory original = 8592 ; Inventory new = 5477}

/\a. The policy change results in additional annual costs of $311

/\b. The policy change results in additional annual costs of $358

/\c. The policy change results in additional annual savings of $311

/\d. The policy change results in additional annual costs of $412

/\e. The policy change results in additional annual savings of $412

### EFN3a Static EFN with stretching average payment period; numerical choices

For year 2525 the company’s sales were $320,000 and their annual-cost-of-goods-sold equaled 85% of sales. The company has followed a policy that set the average payment period (= Accounts Payables ÷ daily-cost-of-goods-sold) at 58 days. The company realizes that relying on Payables as a financing source is free, whereas relying on Debt costs 19% per annum. Suppose they institute a policy that causes the average payment period to decrease by 25 days. Further, suppose the policy has no effect on the firm’s Total Assets or Sales. Based on the numbers for year 2525, how much would the new policy affect annual financing costs due to the company’s switch between high-cost Debt and low-cost (free) Payables?

{ANSWER: C ; xlADDRESS: FA1!$B$625 CLUES: Payables original = $43,222 ; Payables new = $24,592 }

/\a. $4,283 b. $3,218 c. $3,540 d. $3,894 e. $4,711

### EFN3b Static EFN with stretching average payment period; word choices

For year 2525 the company’s sales were $320,000 and their annual-cost-of-goods-sold equaled 85% of sales. The company has followed a policy that set the average payment period (= Accounts Payables ÷ daily-cost-of-goods-sold) at 58 days. The company realizes that relying on Payables as a financing source is free, whereas relying on Debt costs 19% per annum. Suppose they institute a policy that causes the average payment period to decrease by 25 days. Further, suppose the policy has no effect on the firm’s Total Assets or Sales. Based on the numbers for year 2525, how much would the new policy affect annual financing costs due to the company’s switch between high-cost Debt and low-cost (free) Payables?

{ANSWER: D ; xlADDRESS: FA1!$F$625 CLUES: Payables original = $43,222 ; Payables new = $24,592 }

/\a. The policy change results in additional annual costs of $2,677

/\b. The policy change results in additional annual savings of $2,677

/\c. The policy change results in additional annual costs of $3,078

/\d. The policy change results in additional annual costs of $3,540

/\e. The policy change results in additional annual savings of $3,078

### EFN5a Find EFN from simple components (numerical answer)

Analysts report that the company has total assets of $140,000 . Over the next year the total assets should increase 7.6%, spontaneous financing should equal $1,490 , and new retained earnings should equal $7,630 . What is the forecast for EFN (“external financing needed”)?

{ANSWER: D ; xlADDRESS: FA1!$B$640 }

/\a. $1,839 b. $2,023 c. $1,382 d. $1,520 e. $1,672

### EFN5b Find EFN from simple components (word answer)

Analysts report that the company has total assets of $140,000 . Over the next year the total assets should increase 7.6%, spontaneous financing should equal $1,490 , and new retained earnings should equal $7,630 . With all else equal, what is the forecast for EFN (“external financing needed”)?

{ANSWER: E ; xlADDRESS: FA1!$F$640 }

/\a. the forecast for EFN shows a deficit of $1,748

/\b. the forecast for EFN shows a surplus of $2,010

/\c. the forecast for EFN shows a surplus of $1,520

/\d. the forecast for EFN shows a deficit of $2,010

/\e. the forecast for EFN shows a deficit of $1,520

*EFN2 for eExam rtf*

*Total Assets 12/31/2525*

= $495 Cash & securities

+ $720 Inventory

+ $1,600 PP&E

= $2,815

*Liabilities & Equity 12/31/2525*

= $495 Current liabilities

+ $620 Debt

+ $1,700 Stockholders’ equity

= $2,815

*Income, 1/1 – 12/31/2525*

= $16,600 Sales

- $16,200 total costs

= $400 net income

- $170 dividends

= $230 *New retained earnings*

*Multiple setup (EFN2m)*

Find below the Company’s financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

$525 Cash & securities $575 Current liabilities Sales $21,700

$810 Inventory $1,260 Debt total costs $21,000

$3,700 PP&E $3,200 Stockholders’ equity net income $700

$5,035 Total assets $5,035 dividends $450

new retained earnings $250

For 2526 the company plans 12.00% sales growth. They plan to hold constant the asset turnover (sales÷total assets) and payout ratio (=dividends÷net income). They plan to increase Current Liabilities spontaneously with sales, while holding Debt constant.

{xlADDRESS: FA1!R648C1 ; CLUES: Net Income2526 = $1,416 }

### EFN2am Find EFN given sales growth and constant ratios

Suppose the company decides to hold constant their net profit margin (=net income ÷ sales). Given the above plan, how much external financing is needed for year 2526?

{ANSWER: C ; xlADDRESS: FA1!$B$665 ; CLUES: Net Income2526 = $784 }

/\a. $232 b. $281 c. $255 d. $211 e. $309

### EFN2bm Find EFN given sales growth and changing net profit margin

Suppose the company decides to institute cost-cutting measures that should increase the net profit margin (=net income ÷ sales) by 2.60% above its value of year 2525. Given the above plan, how much external financing is needed for year 2526?

{ANSWER: D ; xlADDRESS: FA1!$F$665 ; CLUES: Net Income2526 = $1,416 }

/\a. $24 b. $32 c. $27 d. $30 e. $22

### EFN2cm Find new TL given sales growth, changing net profit margin, & no financing

Suppose the company decides to hold constant their net profit margin (=net income ÷ sales). How much is Total Assets if the forecast shortfall is not financed with external borrowing?

{ANSWER: B ; xlADDRESS: FA1!$J$665 }

/\a. $5,922 b. $5,384 c. $7,166 d. $6,515 e. $7,883

### EFN4 Find EFN given constant PP&E

The Company balance sheet on 12/31/2525 contains the following:

*Balance Sheet, 12/31/2525*

$1,200 Current liabilities

$1,400 Current assets $1,400 Debt

$4,600 PP&E $3,400 Stockholders’ equity

$6,000 Total assets $6,000 Total liabilities & equity

From the income statement for 2525, Sales equal $28,200 , Net Income is $1,861 , and Dividends equal $1,396 . The Company expects sales growth during year 2526 of 9.4%. They expect Current Assets and Current Liabilities will increase spontaneously and proportionately with sales. They believe, however, that they can better utilize existing PP&E. Consequently, they expect PP&E to remain constant. Also expected to remain constant are the net profit margin (= Net Income ÷ Sales) and the payout ratio (= Dividends ÷ Net Income). The company anticipates running a surplus during year 2526. given that Long Term Debt is unchanged, how large is the forecast surplus?

{ANSWER: B ; xlADDRESS: FA1!$B$687 }

/\a. $368 b. $490 c. $446 d. $405 e. $539

### EFN6 Find EFN given new asset turnover

Find below the Company financial statements for year 2525.

*Balance Sheet, 12/31/2525 Income, 1/1 – 12/31/2525*

Current Assets $3,800 $400 Current liabilities Sales $25,110

$700 Debt total costs $23,428

PP&E $5,500 $8,200 Stockholders equity net income $1,682

$9,300 $9,300 Total dividends $1,177

For year 2526 the company forecasts sales growth of 4.4% with constant net profit margin (= net income ÷ sales) and dividend payout ratio (=dividends÷net income). The company expects that due to more efficient asset management they can increase the asset turnover ratio (= salest ÷ total assetst ) to 3.30 . They expect current liabilities will rise spontaneously with sales. According to these forecasts, find the surplus external financing needed in 2526.

{ANSWER: A ; xlADDRESS: FA1!$B$70 }

/\a. $1,901 b. $1,728 c. $2,091 d. $1,571 e. $1,428

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