

Module 12 – Financial Accounting for MBAs, 4th edition, by Easton, Wild, Halsey, and McAnally

Solutions to Practice Quiz

LO: 3

1.

Answer: b

$\$3,305 \text{ million} - (6.66\% \times \$12,972 \text{ million}) = \$2,441 \text{ million}.$

LO: 2

2.

Answer: c

$$\begin{aligned} \text{FCFF} &= \text{NOPAT} - \text{increase in NOA} \\ &= \$3,305 \text{ million} - (\$12,209 \text{ million} - \$12,972 \text{ million}) \\ &= \$4,068 \text{ million} \end{aligned}$$

Note: 3M's NOA decreased during 2005. The free cash flows to the firm are, therefore, the sum of NOPAT and the decrease in NOA.

LO: 3

3.

Answer: d

PepsiCo will earn a positive ROPI up to a WACC of 21.9%. At this level of WACC, $\text{ROPI} = (\$18,908 \text{ million}) \times 21.9\% = \$4,140$, the level of NOPAT.

LO: 1, 2

4.

Answer: c

TGT (\$millions)	Current	Forecast Horizon				Terminal Year
	2006	2007	2008	2009	2010	
Sales.....	\$51,271	\$57,526	\$64,544	\$72,418	\$81,253	\$82,878
NOPAT	2,694	2,876	3,227	3,621	4,063	4,144
NOA.....	24,077	27,008	30,302	33,999	38,147	38,910
DCF Model						
Increase in NOA.....		\$ 2,931	\$ 3,294	\$ 3,697	\$ 4,148	\$ 763
FCFF (NOPAT - Increase in NOA)		(55)	(67)	(76)	(85)	3,381
Discount factor [1 / (1 × r _w) ^t]		0.93458	0.87344	0.81630	0.76290	
Present value of horizon FCFF		(51)	(59)	(62)	(65)	
Cum present value of horizon FCFF	\$ (237)					
Present value of terminal FCFF	51,587					
Total firm value	51,350					
Less NNO	9,872					
Firm equity value.....	\$41,478					
Shares outstanding (millions)	874.1					
Stock price per share	\$ 47.45					

LO: 3

5.

Answer: a

ANF (\$millions)	Current	Forecast Horizon				Terminal Year
	2006	2007	2008	2009	2010	
Sales.....	\$2,785	\$3,838	\$5,289	\$7,288	\$10,043	\$10,244
NOPAT	325	448	617	851	1,172	1,195
NOA.....	616	849	1,170	1,612	2,222	2,266
ROPI Model						
ROPI (NOPAT - [NOA _{Beg} × r _w])		\$ 368	\$ 507	\$ 699	\$ 962	\$ 906
Discount factor [1 / (1 + r _w) ^t]		0.88496	0.78315	0.69305	0.61332	
Present value of horizon ROPI		326	397	484	590	
Cum present value of horizon ROPI	\$1,797					
Present value of terminal ROPI	5,052					
NOA.....	616					
Total firm value	\$7,465					
Less NNO (Plus negative NNO)	(379)					
Firm equity value.....	7,844					
Shares outstanding (millions)	103.3					
Stock value per share	\$ 75.93					

LO: 1, 2

6.

Answer: d

CVS (\$ millions)	Current	Forecast Horizon			Terminal	
	2005	2006	2007	2008	2009	Year
Sales.....	\$37,006	\$44,777	\$54,180	\$65,558	\$79,325	\$80,912
NOPAT	1,292	1,563	1,891	2,288	2,768	2,824
NOA.....	10,520	12,721	15,392	18,624	22,536	22,986
DCF Model						
Increase in NOA.....		\$ 2,201	\$ 2,671	\$ 3,232	\$ 3,912	\$ 450
FCFF (NOPAT - Increase in NOA)		(638)	(780)	(944)	(1,144)	2,374
Discount factor $[1 / (1 + r_w)^t]$		0.92593	0.85734	0.79383	0.73503	
Present value of horizon FCFF.....		(591)	(669)	(749)	(841)	
Cum present value of horizon FCFF	\$(2,850)					
Present value of terminal FCFF.....	29,083					
Total firm value	26,233					
Less NNO	2,189					
Firm equity value.....	\$24,044					
Shares outstanding (millions)	814.3					
Stock price per share	\$ 29.53					

LO: 1, 2

7.

Answer: c

(\$millions)

$$\begin{aligned} \text{NOA} &= \$20,513 - \$272 - \$1,256 - \$469 - \$989 - \$1,452 - \$3,866 \\ &= \$12,209 \end{aligned}$$

LO: 1, 2

8.

Answer: b

(\$millions)

$$\begin{aligned} \text{NOPAT} &= \$5,009 - (\$1,694 + [\$26 \times 36.3\%]) \\ &= \$3,306 \end{aligned}$$

LO: 3

9.

Answer: c

3M (\$millions)	Current	Forecast Horizon			Terminal Year	
	2005	2006	2007	2008		2009
Sales.....						
.....	\$21,167	\$22,395	\$23,694	\$25,068	\$26,522	\$26,787
NOPAT	3,306	3,498	3,701	3,916	4,143	4,184
NOA.....	12,209	12,945	13,696	14,490	15,331	15,484
ROPI Model						
ROPI (NOPAT = $[NOA_{\text{Beg}} \times r_w]$)		\$ 2,643	\$ 2,795	\$ 2,957	\$ 3,129	\$ 3,111
Discount factor $[1 / (1 + r_w)^t]$		0.93458	0.87344	0.81630	0.76290	
Present value of horizon ROPI.....		2,470	2,441	2,414	2,387	
Cum present value of horizon ROPI	\$ 9,712					
Present value of terminal ROPI.....	39,556					
NOA.....	12,209					
Total firm value	61,477					
Less NNO.....	2,109					
Firm equity value.....	<u>\$59,368</u>					
Shares outstanding (millions)	754.5					
Stock value per share	<u>\$ 78.69</u>					

LO: 1,2

10.

Answer: d

2005 NOA = \$48,314 – \$3,990 – \$1,458 – \$4,135 – \$2,249 – 2,110 – \$1,160 – \$632 – \$810 – \$1,960 – \$703 – \$89 = \$29,018 million.