

Module 14 – Financial Statement Analysis & Valuation, 4th Edition by Easton, McAnally, Sommers & Zhang

Practice Quiz

1. Penn Company reports net operating profit after tax (NOPAT) of \$3,306 million in 2013. Its net operating assets at the beginning of 2013 are \$10,215 million. Assuming a 6.66% weighted average cost of capital (WACC), what is Penn's residual operating income for 2013?
 - a. \$ 864 million
 - b. \$2,626 million
 - c. \$1,699 million
 - d. \$3,305 million
2. In its 2013 fiscal year annual report, BrandCo reports 2013 net operating income after tax (NOPAT) of \$4,140 million. As of the beginning of fiscal year 2013 it reports net operating assets of \$13,529 million. At what level of WACC would BrandCo not report positive residual operating income for 2013?
 - a. 5.8%
 - b. 12.3%
 - c. 19.1%
 - d. 30.6%
3. Following are forecasts of Baker Company's sales, net operating profit after tax (NOPAT), and net operating assets (NOA) as of January 31, 2013.

(in millions)	Reported 2013	Horizon Period				Terminal Period
		2014	2015	2016	2017	
Sales	\$2,785	\$3,838	\$5,289	\$7,288	\$10,043	\$10,244
NOPAT	330	455	627	864	1,190	1,214
NOA	533	735	1,012	1,395	1,922	1,961

Assuming a terminal period growth rate of 2%, a discount rate (WACC) of 13%, common shares outstanding of 103.3 million, and net nonoperating obligations (NNO) of \$(462) million (negative NNO reflects net investments rather than net obligations), estimate the value of a share of Baker common stock using the residual operating income (ROPI) model as of January 31, 2013.

- a. \$79.90
- b. \$78.27
- c. \$74.32
- d. \$69.78

4. Following is the balance sheet for **3M Company**.

Balance Sheet		
At December 31 (\$ millions, except per share amount)	2005	2004
Assets		
Cash and cash equivalents	\$ 1,072	\$ 2,757
Accounts receivable—net of allowances of \$73 and \$83	2,838	2,792
Inventories		
Finished goods	1,050	947
Work in process	706	614
Raw materials and supplies	406	336
Total inventories	2,162	1,897
Other current assets	1,043	1,274
Total current assets	7,115	8,720
Investments	272	227
Property, plant and equipment	16,127	16,290
Less: Accumulated depreciation	(10,534)	(10,579)
Property, plant and equipment—net	5,593	5,711
Goodwill	3,473	2,655
Intangible assets—net	486	277
Prepaid pension and postretirement benefits	2,905	2,591
Other assets	669	527
Total assets	<u>\$20,513</u>	<u>\$20,708</u>
Liabilities and Stockholders' Equity		
Short-term borrowings and current portion of long-term debt	\$ 1,072	\$ 2,094
Accounts payable	1,256	1,168
Accrued payroll	469	487
Accrued income taxes	969	867
Other current liabilities	1,452	1,455
Total current liabilities	5,238	6,071
Long-term debt	1,309	727
Other liabilities	3,866	3,532
Total liabilities	10,413	10,330
Stockholders' equity		
Common stock, par value \$.01 per share:		
Shares outstanding—2005: 754,538,387;		
Shares outstanding—2004: 773,518,281	9	9
Capital in excess of par value	287	287
Retained earnings	17,358	15,649
Treasury stock	(6,965)	(5,503)
Unearned compensation	(176)	(196)
Accumulated other comprehensive income (loss)	(411)	132
Stockholders' equity—net	10,100	10,378
Total liabilities and stockholders' equity	<u>\$20,513</u>	<u>\$20,708</u>

Compute net operating assets (NOA) for 2005.

- \$12,481 million
- \$13,465 million
- \$11,137 million
- \$16,075 million

5. Following are forecasts of **3M Company's** sales, net operating profit after tax (NOPAT), and net operating assets (NOA) as of December 31, 2005.

(in millions)	Reported 2005	Horizon Period				Terminal Period
		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	11,137	11,787	12,471	13,194	13,959	14,098

Assuming a terminal period growth rate of 1%, a discount rate (WACC) of 7%, common shares outstanding of 754.5 million, and net nonoperating obligations (NNO) of \$1,037 million, estimate the value of a share of 3M's common stock using the residual operating income (ROPI) model as of December 31, 2005.

- a. \$71.32
- b. \$75.41
- c. \$80.67
- d. \$83.14