ADVANCED FIRM VALUATION   27.4.2015

Prof. Juha-Pekka Kallunki

1ˢᵗ Exam

1. Below you will find six statements. Answer whether they are true or false [correct answer = 1p., wrong answer = -1p., no answer = 0p. Min: 0p., max 6p.]

   a) Statement of Cash Flows shows how much cash and cash equivalents have changed from opening to ending balance sheets

   b) Net Operating Profit After Taxes (NOPAT) can be calculated by using alternative tax rates.

   c) If ROE (return on common equity) equals the required return (cost of equity), then the Economic Value Added EVA will be zero.

   d) ROCE always refers to the Return on Capital Employed.

   e) When assessing the value creation of the firm, investors' required rate of return refers to the question 'How profitably are we?'.

   f) WACC is a measure of the accounting rate of return.

2. a) Show how ROE is decomposed by using the so-called DuPont identity. [3p.]

   b) Attached you can find the income statement and balance sheet for Nokian Tyres for 2013. Nokian Tyres reports in the financial report that its ROE is 13,0 percent. Show how they have calculated this number (hint: ROE is based on the reported profit rather than on NOPAT). [3p.]

3. Schiller & Co. Ltd. has the following data at the end of December 2013:

Book value of equity: 4.00 per share

Expected earnings for the next four years: (31 Dec 2014) 2.00 per share
                                                              (31 Dec 2015) 2.50 per share
                                                              (30 Dec 2016) 2.80 per share
                                                              (30 Dec 2017) 3.20 per share

Schiller & Co. Ltd is not expected to pay any dividends during this period. Expected cost of equity capital is 10 percent. The perpetual growth in abnormal earnings after 2017 is equal to the growth in residual income between 2016 and 2017.

 a) Using the abnormal earnings model, calculate the intrinsic value of a share of Schiller & Co. Ltd on 31 December 2013. [6p]
 b) Calculate the expected ROE (return on equity) in year ended 31 December 2017 by using the average equity of the beginning and ending balance sheet. [6p]

EUR million	31.12.	Notes	2013	2012
ASSETS				
Non-current assets				
Property, plant and equipment		(12)(13)	683.8	692.5
Goodwill		(2)(14)	69.9	67.9
Other intangible assets		(14)	24.7	26.4
Investments in associates		(16)	0.1	0.1
Available-for-sale financial assets		(16)	0.3	0.3
Other receivables		(15)(17)	11.3	18.2
Deferred tax assets		(18)	8.8	5.4
			798.8	810.8
Current assets				
Inventories		(19)	322.1	314.9
Trade and other receivables		(20)(29)	503.5	451.4
Current tax assets			13.8	12.3
Cash and cash equivalents		(21)	424.6	430.3
			1,264.1	1,208.9
Total assets		(1)	2,062.9	2,019.6
EQUITY AND LIABILITIES				
Equity attributable to equity holders of the parent		(22)(23)		
Share capital			25.4	25.4
Share premium			181.4	181.4
Translation reserve			-128.5	-61.0
Fair value and hedging reserves			-0.7	-1.5
Paid-up unrestricted equity reserve			97.1	79.3
Retained earnings			1,217.9	1,213.2
			1,392.5	1,436.8
Non-controlling interest			0.2	0.3
Total equity			1,392.8	1,437.2
Liabilities				
Non-current liabilities		(24)		
Deferred tax liabilities		(18)	36.1	34.9
Provisions		(25)	0.1	0.1
Interest-bearing financial liabilities		(26)(27)(29)	185.8	323.1
Other liabilities			3.5	3.5
			225.4	361.7
Current liabilities				
Trade and other payables		(28)	255.2	161.3
Current tax liabilities			4.0	13.2
Provisions		(25)	3.1	4.3
Interest-bearing financial liabilities		(26)(27)(29)	182.4	42.0
			444.7	220.8
Total liabilities		(1)	670.1	582.5
Total equity and liabilities			2,062.9	2,019.6

EUR million	1.1.–31.12.	Notes	2013	2012
Net sales		(1)	**1,521.0**	1,612.4
Cost of sales		(3)(6)(7)	**-819.9**	-900.7
Gross profit			**701.0**	711.7
Other operating income		(4)	**3.9**	1.9
Selling and marketing expenses		(6)(7)	**-249.1**	-238.5
Administration expenses		(6)(7)	**-36.6**	-34.7
Other operating expenses		(5)(6)(7)	**-33.8**	-25.4
Operating profit			**385.5**	415.0
Financial income		(8)	**104.3**	89.8
Financial expenses [1]		(9)	**-177.0**	-117.1
Profit before tax			**312.8**	387.7
Tax expense [2,3]		(10)	**-129.1**	-56.8
Profit for the period			**183.7**	330.9