

Value Investing (17003) Exam

May 19, 2018

Exam time: 4 hours

Maximum score is 70 points. Minimum required to pass the exam is 35 points. Avoid answers beyond two pages. Answer the questions below. Please write as clearly as possible.

- (1) To get from EBIT to normalized earnings we need to make several adjustments. One should adjust for cyclical variations (Sales and EBIT figures are shown in Table 1). Another of the adjustments is to add back excess depreciation. This can be done by adding back depreciation and amortization and subtracting maintenance capital expenditure (MCX). The following financial information is available:
- Average Property, plant and equipment (PPE) / Sales = 20%
 - Current euro increase in sales = EUR 105 million
 - Capital expenditures (Capex) from the cash flow statement = EUR 30 million
- (i) What is the maintenance capex for this firm in euros?
- (ii) What is the earnings power value (EPV) of the company if the WACC is 10%, the tax rate is 20%, and amortization and depreciation sums to EUR 31 million?

Table 1.					
	2011	2014	2015	2016	2017
Sales	300	600	500	700	805
EBIT	81	100	110	120	150

[The question is based on concepts in Greenwald et al. (2001)]

(25 p)

- (2) (a) How would you assess the competitive advantages of Kone Oyj based on the information in Tables 2 and 3?
- (b) How would you proceed to assess the *sustainability* of the possible competitive advantages?

[The question is based on concepts in Greenwald et al. (2001) and lecture slides]

Table 2.

Market-Share Stability for Top Elevator Companies

	2011	2011	2015	2015
	Sales	Normalized MS	Sales	Normalized MS
Otis	12.44	26%	11.98	24%
Mitsubishi Electric	11.9	25%	10.2	21%
Schindler	8.86	19%	9.51	19%
Kone	7.27	15%	9.46	19%
Thyssen Group	7.31	15%	7.88	16%
Total	47.78	100%	49.03	100%

Billions of USD, Sources: FactSet (2011 data), Statista.com (2015 data)

Table 3.

Profitability Analysis: Elevator Industry (average for 2012-2016)

	ROA (%)	ROE (%)	ROS (Ebit/Sales) (%)	Elevator segment of total (%)
United technologies Corp. (Otis)	6	18.4	13.6	21.1
Mitsubishi Electric (Group)	4.3	10.7	6.2	28.6
Schindler	8.4	26.2	11.7	100
Kone	13.2	38.9	13.6	100
Thyssen Group (Group)	-0.3	-4.7	2.5	19

Note: Schindler and Kone have the most comparable figures. Source: FactSet

(20 p)

(3) Answer **two** of the following three questions briefly:

- (a) Discuss “Margin of Safety” (Chapter 20) as the central concept of investment. [Graham, 2003]
- (b) Discuss the chapter “Stock selection for the enterprising investor” (chapter 15) in Graham (2003).
- (c) Discuss central findings in the paper “The other side of value: The gross profitability premium” by Novy-Marx (Journal of Financial Economics, 2013).

(25 p)

Good luck!