

ADVANCED FIRM VALUATION (2013)

Prof. Juha-Pekka Kallunki
Prof. Gilad Livne (University of Exeter)

In the exam, dictionary or any other material **are not allowed**. A calculator **is allowed**.

2nd Exam 5.9.2013

Prof. Kallunki's lectures:

1. Define the four alternative formulas for EVA (Economic Value Added) with following variables:
 - Return on Invested Capital, ROIC
 - Weighted Cost of Capital, WACC
 - Invested Capital, InvCap
 - Non-operating profit after taxes, NOPAT
2. When does a firm destroy value from shareholders' point of view?

Prof. Livne's lectures:

3. Below you are provided with extracts from HMV's 2012 report concerning its operating leases. Other relevant information (all figures in £m):
 1. NOA as at 30.4.2011: 109.1; NFO as at 30.4.2011: 167.9
 2. NOA as at 28.4.2012: 39.0; NFO as at 28.4.2012: 173.4
 3. OIAT for 2012 (tax rate = 26%):

| | |
|-----------------------------------|----------------------------|
| Operating loss (EBIT) | (58.5) |
| Tax <i>income</i> as reported | 1.7 |
| Tax shield on net finance expense | <u>(6.1)</u> - 23.6 x 0.26 |
| OIAT | (62.9) |
 4. Net financial expense *after tax* (NFEAT): 17.5.

Required

1. Estimate the pre-tax borrowing cost of HMV. [20%]
2. Assuming that operating lease commitments after five years are paid in five equal instalments, what is the balance of off-balance sheet debt with respect to operating leases for 2012 and 2011. The discount rate is your answer to 1, or if you did not

- answer 1, use 10%. [Hint: assume that obligations lease commitments between two years and five years inclusive are paid in equal amounts.] [35%]
3. Calculate OIAT as revised for treating these operating leases as finance leases. [Hint: assume these leases are capitalised at the end of the year.] [25%]
 4. Calculate RNOA as revised for treating these operating leases as finance leases. [20%]

5. Total Group operating loss (including discontinued operations)

| | 2012 £m | 2011 £m |
|--|------------|------------|
| Total Group operating loss (including discontinued operations) is stated after charging (crediting): | | |
| Depreciation of property, plant and equipment | 21.4 | 39.7 |
| Impairment charges | 41.6 | 122.7 |
| Amortisation of intangible assets | 0.2 | 0.3 |
| Cost of inventories recognised as expense | 663.7 | 1,185.6 |
| Write down of inventories | 3.3 | 6.7 |
| Operating lease rentals: | | |
| Minimum rentals | 88.9 | 161.2 |
| Contingent rentals | 1.2 | 2.3 |
| Sublease rentals | (3.6) | (3.9) |
| Net operating lease rentals | 86.5 | 159.6 |

The Group leases stores under non-cancellable operating lease agreements that are generally subject to periodic rent review. These agreements provide for either or both minimum rentals and percentage rentals based on sales performance.

34. Obligations under leases

Obligations under operating leases

The Group operates entirely from properties in respect of which commercial operating leases have been entered into. These leases have an average remaining duration of five years. At the end of the period, future minimum rentals payable under non-cancellable operating leases were as follows:

| Group | Land and buildings | | Other | |
|--------------------------------------|--------------------|------------|------------|------------|
| | 2012 £m | 2011 £m | 2012 £m | 2011 £m |
| Not later than one year | 77.0 | 151.8 | 0.2 | 0.6 |
| Between two and five years inclusive | 232.6 | 474.7 | 0.1 | 1.5 |
| After five years | 186.6 | 360.8 | – | – |
| | 496.2 | 987.3 | 0.3 | 2.1 |