

CHAPTER 1: CAPITAL BUDGETING

LESSON 2: OTHER INCOME MEASURES AND VALUATION MODELS

The following information relates to questions 1 – 6

Leighton Industries is a single-line of business company which is being gradually wound down over the next four years. It currently has €100,000 invested in fixed assets and a further €36,000 in inventory. The fixed assets are depreciated straight-line to zero but are expected to be sold for €20,000 at the end of the four years, at which time the company will also fully recover its investment in inventory. Leighton is in the 20% tax bracket

The company faces a 13% cost of equity, 7.6% before-tax cost of debt and maintains a 25% debt-to-value ratio. Leighton is projected to distribute its entire net operating and investing cash flows to debtholders and equity investors as detailed in the statements of cash flows below.

Year	0	1	2	3	4
<i>Income statements:</i>					
Sales		81,000	81,000	81,000	81,000
Operating cash expenses		48,000	48,000	48,000	48,000
Depreciation		25,000	25,000	25,000	25,000
EBIT		8,000	8,000	8,000	8,000
Interest expense		2,485	2,168	1,816	1,424
EBT		5,515	5,832	6,184	6,576
Taxes		1,103	1,166	1,237	1,315
Net income before salvage		4,412	4,666	4,947	5,261
After-tax gain on disposal		-	-	-	16,000
Net income		4,412	4,666	4,947	21,261
<i>Balance sheets:</i>					
Assets	136,000	111,000	86,000	61,000	0
Liabilities	32,695	28,530	23,895	18,738	0
Net worth	103,305	82,470	62,105	42,262	0

Statements of cash flows:

Operating cash flows				
Net income	4,412	4,666	4,947	21,261
Depreciation	25,000	25,000	25,000	25,000
Change in working capital	-	-	-	36,000
Gain on disposal (after-tax)	-	-	-	-16,000
Total	29,412	29,666	29,947	66,261
Investing cash flows				
Disposal proceeds (net of tax)	-	-	-	16,000
Financing cash flows				
Debt repayment	-4,165	-4,635	-5,157	-18,738
Dividends/repurchases	-25,247	-25,031	-24,790	-63,523
Total	-29,412	-29,666	-29,947	-82,261
Total cash flows	0	0	0	0

Question 1

Economic income during year 1 is closest to:

- A €14,739.
- B €48,061.
- C €16,661.

Question 2

The economic rate of return during year 3 is closest to:

- A 12.92%.
- B 11.27%.
- C 15.13%.

Question 3

Economic profit during year 2 is closest to:

- A - €8,927.
- B - €6,110.
- C - €6,461.

Question 4

The project's market value added (MVA) is closest to:

- A - €17,063.
- B - €5,219.
- C - €15,453.

Question 5

The residual income during year 4 is closest to:

- A - €233.
- B €13,953.
- C €15,767.

Question 6

Which of the following discount rate combinations should be applied to Leighton's interest and principal payments as well as its equity distributions so as to arrive at the total value of the company under the claims valuations approach?

	<u>Interest and principal payments</u>	<u>Equity distributions</u>
A	7.60%	13.00%
B	11.27%	11.27%
C	6.08%	13.00%