GESTÃO FINANCEIRA I & GESTÃO FINANCEIRA

Análise de Projetos de Investimento e Free Cash Flows

Trabalho de Grupo Nº 2

2º Semestre 2015-2016

MAJEED Industries is an automobile manufacturer. Management is currently evaluating a proposal to build a plant that will manufacture lightweight trucks. MAJEED plans to use a cost of capital of 12% to evaluate this project. Based on extensive research, it has prepared the following incremental free cash flow projections (in millions of euros):

	Year 0	Years 1–9	Year 10
Revenues		100.0	100.0
− Manufacturing expenses (other than depreciation)		−35.0	−35.0
− Marketing expenses		−10.0	−10.0
− Depreciation		−15.0	−15.0
= EBIT		40.0	40.0
− Taxes (35%)		−14.0	−14.0
= Unlevered net income		26.0	26.0
+ Depreciation		+15.0	+15.0
− Increases in net working capital		−5.0	−5.0
− Capital expenditures	−150.0		
+ Continuation value			+12.0
= Free cash flow	−150.0	36.0	48.0

a. For this base-case scenario, what is the NPV of the plant to manufacture lightweight trucks? And the IRR?

b. Based on input from the marketing department, MAJEED is uncertain about its revenue forecast. In particular, management would like to examine the sensitivity of the NPV to the revenue assumptions. Perform sensitivity analysis and interpret your results.

c. Rather than assuming that cash flows for this project are constant, management would like to explore the sensitivity of its analysis to possible growth in revenues and operating expenses. Specifically, management would like to assume that revenues, manufacturing expenses, and marketing expenses are as given in the table for year 1 and grow by 2% per year every year starting in year 2. Management also plans to assume that the initial capital expenditures (and therefore depreciation), additions to working capital, and continuation value remain as initially specified in the table. What is the NPV of this project under these alternative assumptions? How does the NPV change if the revenues and operating expenses grow by a different rate per year than 2%? Perform sensitivity analysis on this growth rate considering values between 1% and 5%.

d. To examine the sensitivity of this project to the discount rate, management would like to compute the NPV for different discount rates. Create a graph, with the discount rate on the x-axis and the NPV on the y-axis, for discount rates ranging from 5% to 30%. For what ranges of discount rates does the project have a positive NPV?