

# Contents

<b>INTRODUCTION</b> .....	1
---------------------------	---

## **1** **REVIEW OF BASICS**

Non discounted methods .....	4
Discounting cash flows - arithmetic of appraisal .....	6
Discounted cash flow measures .....	12
Review of preparation of cash flow forecasts .....	16

## **2** **RATES/INFLATION/TAXATION AND OTHER ISSUES**

What is meant by 'rate'? .....	26
Calculating weighted average cost of capital (WACC) .....	28
The effect of high interest or discount rates .....	30
How to deal with inflation .....	31
Accounting for taxation .....	36
Dealing with the costs of overheads .....	40
Inclusion of spurious costs .....	40
Including or omitting sunk costs .....	41
Opportunity costs .....	42
Cost of assets with infinite lives .....	43
Grants .....	43

# 3

## OTHER MEASURES

Commonly used measures .....	46
Misunderstanding of NPV .....	46
Other measures .....	48
Present cost .....	48
Annual worth .....	50
Future worth .....	52
Profitability index - benefit/cost ratio .....	56
Cost-benefit analysis .....	57
Appraising entire projects and businesses - discounting cash flows as measures of performance .....	58
Life cycle costing .....	60

# 4

## RISK MANAGEMENT THROUGH SENSITIVITY ANALYSIS

Introduction - risk management .....	72
The need for the most likely case .....	74
No need for provisions or contingencies .....	74
'One at a time' approach .....	74
What is meant by 'sensitive'? .....	77
Sensitivity due to inflation or deflation .....	81
Analysis of price and volume changes .....	85
Why carry out sensitivity analyses? .....	87
Identify the risky parameters and tie them down .....	88

# 5

## NEED FOR CONSISTENCY IN METHODS AND MEASURES

Investment and project appraisal review process .....	94
Project appraisal - a more thorough, integrated approach .....	97
Examples from practice are the best guide .....	100
Investment/project appraisal process audit .....	106
Need for appraisal process guidelines (or instructions) .....	108
Example - RST plc .....	108
Definition of rates where more than one hurdle rate is considered appropriate .....	112

# 6

## ACCOUNTING FOR INTANGIBLE BENEFITS

Introduction - what are intangible benefits (or costs)? .....	118
Defining/measuring intangible benefits .....	119
Valuing benefits - valuation methods .....	120
Some fundamental issues .....	121
The criterion of human welfare .....	121
Valuation methods .....	123
Sources of data .....	129
Choosing a method of valuation .....	130
Consideration of other intangible benefits or costs .....	131
Summary - the need for a process .....	131
Refinery cost-benefit analysis .....	133



## **LENDERS' VIEWS OF PROJECTS AND OTHER ISSUES**

Understanding lenders' criteria .....	140
Project appraisal from the lender's perspective .....	140
Project finance .....	144
PFI accounting requirements .....	145
Accounting for probabilities .....	155
If probabilities of cash flows are to be considered then expertise is required .....	158
Appraisal process used to assist with negotiating .....	158
Impairment reviews - valuation of intangibles .....	161