

# **Capital Budgeting**

---

2<sup>nd</sup> Edition

By Steven M. Bragg, CPA

# Table of Contents

---

<b>Chapter 1 – Overview of Capital Budgeting</b> .....	<b>1</b>
Learning Objectives .....	1
Introduction.....	1
Overview of Capital Budgeting .....	1
The Capital Budgeting Application Form.....	3
Capital Expenditure Proposal Analysis .....	7
Capital Budgeting Problems.....	9
Opportunity Costs .....	11
Sunk Costs .....	11
Excessive Optimism.....	12
Capital Rationing.....	13
Capital Budgeting in a Budget Format.....	14
Capital Budgeting in the Absence of a Budget Model.....	16
Capital Budgeting with Minimal Cash.....	17
The Post Installation Review .....	18
Summary .....	20
Review Questions .....	21
Review Answers .....	22
<b>Chapter 2 – Capital Budgeting Strategy</b> .....	<b>23</b>
Learning Objectives .....	23
Introduction.....	23
Capacity Expansion Strategy .....	23
Capacity Reduction Strategy.....	25
Growth Strategy.....	25
Risk Levels .....	26
Additional Risk Factors for International Investments.....	28
Factors Impacting Future Asset Usage.....	29
Perceived Certainty of Future Demand.....	31
Duration.....	31
Impact of Financing Alternatives.....	32
Summary .....	33
Review Questions .....	34
Review Answers .....	35
<b>Chapter 3 – Discounted Cash Flow Analysis</b> .....	<b>37</b>
Learning Objectives .....	37
Introduction.....	37
Cash Flows.....	37
Time Value of Money .....	38
Present and Future Value Tables .....	39
Net Present Value.....	41
Scenario and Sensitivity Analysis .....	44
Internal Rate of Return.....	46
Incremental Internal Rate of Return.....	47

## Table of Contents

Terminal Value.....	48
Profitability Index.....	48
The Tax Rate.....	49
Cash Flow Analysis Issues.....	50
Summary.....	50
Review Questions.....	51
Review Answers.....	52
<b>Chapter 4 – The Cost of Capital.....</b>	<b>53</b>
Learning Objectives.....	53
Introduction.....	53
Cost of Capital Derivation.....	53
Cost of Debt.....	53
Cost of Preferred Stock.....	54
Cost of Common Stock.....	54
Weighted Average Cost of Capital.....	55
Variations in the Cost of Capital.....	56
Adjustments to the Cost of Capital.....	59
Cost of Capital as a Threshold Value.....	61
Summary.....	62
Review Questions.....	63
Review Answers.....	64
<b>Chapter 5 – Constraint Analysis.....</b>	<b>65</b>
Learning Objectives.....	65
Introduction.....	65
The Bottleneck Operation.....	65
Constraint Analysis.....	67
The Inventory Buffer.....	68
Buffer Sizing.....	69
Sprint Capacity.....	70
Local Optimization.....	71
Investment Decision Priorities.....	72
Priority 1 – Increases Throughput.....	72
Priority 2 – Reduces Invested Funds.....	73
Priority 3 – Reduces Expenses.....	74
Additional Investment Considerations.....	74
The Constraint Analysis Model.....	75
Production Analysis.....	78
Increase Downstream Capacity.....	78
Increase Upstream Capacity.....	80
Increase Upstream Processing.....	81
Outsource to a Supplier.....	82
Summary.....	83
Review Questions.....	84
Review Answers.....	85

## Table of Contents

<b>Chapter 6 – Other Budgeting Analyses .....</b>	<b>87</b>
Learning Objectives .....	87
Introduction.....	87
Breakeven Analysis.....	87
The Payback Method .....	88
Discounted Payback .....	90
Accounting Rate of Return .....	91
Real Options.....	92
The Outsourcing Decision .....	95
Research and Development Funding Analysis.....	97
Complex Systems Analysis .....	98
Summary .....	99
Review Questions .....	100
Review Answers .....	101
<b>Chapter 7 – The Lease or Buy Decision.....</b>	<b>103</b>
Learning Objectives .....	103
Introduction.....	103
The Lease Arrangement.....	103
The Lease or Buy Decision .....	104
Leasing Concerns .....	105
Leasing Advantages.....	106
Summary .....	107
Review Questions .....	108
Review Answers .....	109
<b>Chapter 8 – Capital Budgeting Controls.....</b>	<b>111</b>
Learning Objectives .....	111
Introduction.....	111
Capital Budgeting Controls.....	111
Summary .....	113
Review Questions .....	114
Review Answers .....	115
<b>Glossary .....</b>	<b>117</b>
<b>Index.....</b>	<b>119</b>