CONTENTS

PART I

1 The Problem of Capital Budgeting

3

Investments as Cash Flows—The Estimate of Cash Proceeds—Applications of Capital Budgeting Techniques—Measures of Investment Worth—Criteria for Evaluating Measures of Investment Worth—Capital Budgeting, the Budget Process, and Planning—Basic Computations for Discounting Cash Flows

2 Illustrating the Measures of Investment Worth

18

The Characteristics of the Investments—Ranking by Inspection—The Payback Period—Proceeds per Dollar of Outlay—Average Annual Proceeds per Dollar of Outlay—Average Income on the Book Value of the Investment—Introduction to Discounted Cash Flow Methods of Ranking Investments—The Yield of an Investment Method—Net Present Value—Summary of Rankings—A Note on the Relationship Between Payback Period and Life of an Investment

3 Present Value Versus Yield

39

Accept or Reject Decisions—Mutually Exclusive Investments—Incremental Benefits—Multiple Yields—Interpretation of Multiple Yields—Significance of Nonconventional Cash Flows—Summary—A Note on Continuous Cash Flows and Continuous Discounting

Contents

60

4 The Meaning of Present Value

A Bird in Hand Versus Two in the Bush—Uncertainty—Subjective Time Preference—Alternative Uses of Money—Meaning of the Present-value Calculation When the Alternative is to Borrow Less—Meaning of Present-value Calculations When the Alternative is to Lend Money Outside the Firm—Conditions and Logic for the Net Present-value Method—The Oualifications

5 Classifying Investments

Dependent and Independent Investments—Economically Independent Investments—Economically Dependent Investments—Statistical Dependence—Administrative Implications—Comparability—Comparability and the Replacement Decision—Replacing Equipment with Infinite Physical Lives—Serial Dependence—Replacement Chains—Cost of Excess Capacity—Conclusions

6 The Use of Cash Flows in Evaluating Investments

Cash Flows and Profits—Why Cash Flows?—Absolute and Relative Cash Flows—Importance of Considering All Alternatives—Opportunity Costs—Acquiring Assets Without Cash Disbursements—Excluding Interest Payments—Salvage and Removal Costs—Terminal Value—Income Taxes and Cash Flows—Cash Flows and Uncertainty

7 Corporate Income Taxes and Investment Decisions

Measuring the Effects of Depreciation Charges on Cash Flows—Choosing the Most Advantageous Depreciation Procedure—Use of Tables to Choose Optimum Depreciation Method—Additional Complications Affecting Choice of Depreciation Methods—Working Capital and Salvage Value—Salvage Value and Taxes—Changes in Inventories and Income Taxes—The Timing of Tax Payments—Investment Tax Credit

74

106

122

PART II

8	The Cost of Capital—I	143
	Definition of Cost of Capital—Cost of Common Stock Capital—Cost of Long-term Debt—Cost of Short-term Debt—Debt and Income Taxes—Computing the Average Cost of Capital	
9	The Cost of Capital—II	151
	Cost of Common Stock Capital—The Cost of Capital and the Goals of Organizations—The Cost of Retained Earnings—A Theory of Stock Values—Changes in Stock Prices and the Cost of Equity Capital—Cost of Capital and Inflation—Depreciation and the Cost of Capital—Stable Dividend Policy—The Cost of Raising Equity Capital by Selling Common Stock—The Optimum Capital Structure—The Risk Premium—The Management of Short-term Funds and the Cost of Capital	
10	Capital Budgeting Under Capital Rationing	181
	External Capital Rationing—Internal Capital Rationing —Internal Capital Rationing and Dividend Policy— Summary—Capital Rationing and Present Value	
11	An Introduction to Uncertainty	196
	Uncertain Events and Forecasts of Cash Flows—Probability, a Measure of Likelihood—Uncertainty and Repeated Trials—The Components of Uncertainty—Illustration of Uncertainty—Introducing a New Product—Changing the Uncertainty—Summary	
12	Buy or Lease	218
	Assuming Zero Taxes—Buy or Lease with Taxes—Risk Considerations in Lease Versus Buy and Borrow Fi-	

nancing Alternatives-Is the Equipment Worth Acquir-

ing?—Leasing of Land

13	A Manual for Analyzing Investment Decisions	236
	The Capital Appropriations Request (Form A)—Explanations—Estimating Cash Flows from Operations (Form A-1)—Choosing the Most Profitable Depreciation Method—Computing the Annual Depreciation Charges (Form A-2)—Summarizing the Cash Flow Information and Computing Present Values (Form A-3)—Avoiding Errors Due to Improper Comparisons	
14	Evaluating Private Investment Proposals: A National Economic Point of View	264
	Discrepancies Between Market Prices and Opportunity Prices—Indivisibilities—External Effects—Conclusions	
	PART III	
15	Uncertainty and Investment Decision Making	283
	Attitudes Toward Risk—Utility Functions and Business Decision Making—Whose Attitudes?—Utility Analysis and Wealth Maximization—The Investment Market—An Illustration—The Portfolio Problem—The Time Value of Information—Pooling of Risk—Spreading Risk over Independent but Otherwise Similar Investments—Illustration of a Derivation of a Utility Function	
16	Uncertainty and Financial Policy	322
	Risk and the Discount Rate—A Default-Free Rate of Discount—The Borrowing Rate—Discount Rate—Summary—Classification of Risky Investments—Estimating the Portfolio Effects of Adding an Investment—Joint Probability Distribution of Components of States of Nature—A Simplified Approach—Summary—Investments and Stock Values—Conclusions	
A Selected Bibliography on Capital Budgeting		359
Appendix Tables		367
Index		415