PRINCIPLES OF FINANCIAL AND MANAGERIAL ACCOUNTING II

Capital Budgeting
evaluating proposed capital expenditures

What is a capital expenditure?

From Chapter 10, page 470:
"Additions and improvements are costs incurred to increase the operating efficiency, productive capacity, or expected useful life of the plant asset. These expenditures are usually material in amount and occur infrequently. **Expenditures for additions and improvements increase the company's investment in productive facilities and are generally debited to the plant asset affected. They are often referred to as _____ _____.**"
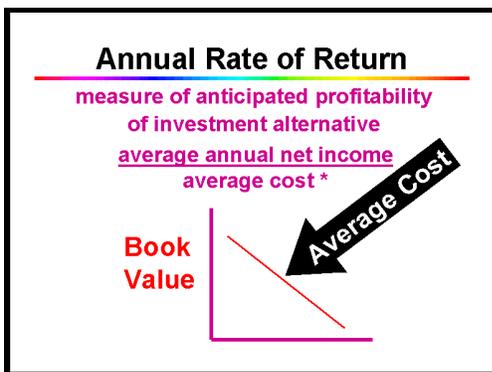
From Chapter 26, page 1205:
Individuals make **capital expenditures** when they buy a new home, car, or television set. Similarly, businesses make capital expenditures when they modernize plant facilities or expand operations ... Union Pacific Resources Group Inc. announced that it would cut its capital budget by 19% in order to use the funds to reduce its outstanding debt. In business, as for individuals, the amount of possible **capital expenditures** usually exceeds the funds available for such expenditures. Thus, the resources available must be allocated (budgeted) among the competing alternatives. The process of making capital expenditure decisions in business is known as _____ _____. [It] involves choosing among various capital projects to find the one(s) that will maximize a company's return on its financial investment.

"So you bought a new _____."

Date	Account Title	Ref	Debit	Credit
14	Asset? or Expense?		6,900	
	Cash			6,900

debiting an _____ is a capital expenditure

Annual Rate of Return

measure of anticipated profitability of investment alternative

$$\frac{\text{average annual net income}}{\text{average cost *}}$$

Book Value

Average Cost

Annual Rate of Return

measure of anticipated _____ of an investment alternative

Three ways to determine "average cost":

1.   Sum book value each year and divide by number of years.

2.

3.

Limitations of Annual Rate of Return:

1. timing of _____

2. timing of _____

Cash Payback Period

time required to _____

Cash coming in (revenue)	
− Cash going out (expense)	
= _____	

Revenue	
− Expense	
=	

Even "Streams"	Uneven "Streams"

Limitations of Cash Payback:

ignores overall _____ , cash flow _____ ,
and cash flow beyond the payback period.

Cash Payback Period LIMITATIONS A					
			Received		
Spent	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
200,000	18,000	18,000	18,000	18,000	18,000
+ depr	40,000	40,000	40,000	40,000	40,000
= NCF	58,000	58,000	58,000	58,000	58,000
	200,000	=	40,000	annual SL depr	
	5				
Since EVEN streams:					
	200,000	=		3	years
	58,000				

Cash Payback Period LIMITATIONS B					
			Received		
Spent	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
200,000	40,000	30,000	10,000	5,000	5,000
+ depr	40,000	40,000	40,000	40,000	40,000
= NCF	80,000	70,000	50,000	45,000	45,000
	200,000	=		40,000	annual SL depr
	5				
Since UNEVEN streams:					
	NCF	Cumulative			
	80,000				
	70,000	150,000			
	50,000	200,000	bingo!	3 years	

Discounted Cash Flow: Net Present Value Method

compares present value of _____ with proposed outlay
(already in today's dollars)

_____ is built into the computation.

When there is an _____ of future NCF over the _____,
it

IS an _____ alternative.

$$\text{NCF} \times \text{PV factor} = \text{PV of NCF}$$
$$- \ \underline{\text{PV of expenditure}}$$

acceptable	+ or 0
not acceptable	—

(A demonstration exercise is on the next page.)

Capital Investment Analysis

Victory Company is considering the acquisition of machinery at a cost of $750,000. The machinery has an estimated life of 5 years and no residual value. It is expected to provide yearly income of $37,500 and yearly net cash flows of $187,500. The company's minimum desired rate of return for discounted cash flow analysis is 6%. Compute the following:

(a) The annual rate of return.

$$ \underline{\hspace{5cm}} \quad = \quad \frac{\$\underline{\hspace{3cm}}}{\$\underline{\hspace{3cm}}} \quad = \quad \underline{\hspace{2cm}}\% $$

(b) The cash payback period.

$$ \underline{\hspace{5cm}} \quad = \quad \frac{\$\underline{\hspace{3cm}}}{\$\underline{\hspace{3cm}}} \quad = \quad \underline{\hspace{2cm}} \text{ years} $$

(c) The excess (deficiency) of present value over the amount to be invested using the net present value method. Use the table of "Present Value of 1" in the appendix (and use the "memory" on your calculator).

Year	Net Cash Flow	Factor	PV of NCF
1	$ _____	_____	$ _____
2	_____	_____	_____
3	_____	_____	_____
4	_____	_____	_____
5	_____	_____	_____
Total			$ _____
Proposed expenditure			_____
Excess			$ _____