Investment Project Value - Details and Rubric

- Complete Chapter 9 problem, 9-10, p. 407
- Complete Chapter 10 problems, 10-1, 10-2, 10-3, 10-4, 10-5, 10-6, and 10-7, p. 443

Prepare this Assignment as a Word® document. List each question, followed by your answer. Please submit this Assignment through the Dropbox.

Unit 4 Assignment 1: Investment Project Value		
Criteria for Assignment Grades	**Points Possible**	**Points Earned**
Provides correct and complete answers for questions and problems.	18	
Clearly shows the reasoning and/or calculations used to arrive at the answer or conclusion.	23	
Demonstrates excellent college-level organization and style; presents work in Excel® or Microsoft Word, showing all necessary formulas and steps.	4	
Total	45	

(9-10) Cost of Equity

The earnings, dividends, and stock price of Shelby Inc. are expected to grow at 7% per year in the future. Shelby's common stock sells for $23 per share, its last dividend was $2.00, and the company will pay a dividend of $2.14 at the end of the current year.

a. Using the discounted cash flow approach, what is its cost of equity?
b. If the firm's beta is 1.6, the risk-free rate is 9%, and the expected return on the market is 13%, then what would be the firm's cost of equity based on the CAPM approach?

c. If the firm's bonds earn a return of 12%, then what would be your estimate of r_s using the own-bond-yield-plus-judgmental-risk-premium approach? (*Hint:* Use the mid-point of the risk premium range.)
d. On the basis of the results of Parts a through c, what would be your estimate of Shelby's cost of equity?

answers to above ↓

9-10 a. 16.3%.
b. 15.4%.
c. 16%.

Chapter 10, 10-1, 10-2, 10-3, 10-4, 10-5 10-6, 10-7

EASY PROBLEMS 1–7

(10-1) NPV

A project has an initial cost of $40,000, expected net cash inflows of $9,000 per year for 7 years, and a cost of capital of 11%. What is the project's NPV? (*Hint:* Begin by constructing a time line.)

(10-2) IRR

Refer to Problem 10-1. What is the project's IRR?

(10-3) MIRR

Refer to Problem 10-1. What is the project's MIRR?

(10-4) Profitability Index

Refer to Problem 10-1. What is the project's PI?

(10-5) Payback

Refer to Problem 10-1. What is the project's payback period?

(10-6) Discounted Payback

Refer to Problem 10-1. What is the project's discounted payback period?

(10-7) NPV

Your division is considering two investment projects, each of which requires an up-front expenditure of $15 million. You estimate that the investments will produce the following net cash flows:

Year	Project A	Project B
1	$ 5,000,000	$20,000,000
2	10,000,000	10,000,000
3	20,000,000	6,000,000

answers

10-1 NPV = $2,409.77.
10-2 IRR = 12.84%.
10-3 MIRR = 11.93%.
10-4 PI = 1.06.
10-5 4.44 years.
10-6 6.44 years.

answer ↓

10-7 a. 5%: $NPV_A = \$16,108,952$; $NPV_B = \$18,300,939$.
10%: $NPV_A = \$12,836,213$; $NPV_B = \$15,954,170$.
15%: $NPV_A = \$10,059,587$; $NPV_B = \$13,897,838$.
b. $IRR_A = 43.97\%$; $IRR_B = 82.03\%$.