

(ÇAĞ UNIVERSITY)
IFN 421 INVESTMENT ANALYSIS
Homework Questions
(4.12.2023)

- 1) The existing yield on the debt was 68,80 percent. We shall assume new debt can be issued at the same going market rate and that the firm is paying a 25 percent tax. What is the cost of debt?
- 2) The existing yield on the debt was 45% and tax rate is 25%. What is the cost of debt?
- 3) Your company is expected to pay a dividend of \$7 per share next year (D_1). Dividends have grown at a steady rate of 9% per year and the market expects that to continue (g). The current stock price is \$62 (P_0). What is the cost of equity?
- 4) Assume that:
 $D_1 = \$2$,
 $P_0 = \$40$, and
 $g = 7\%$,
 $K_e = ?$
- 5) Assume today's stock price is \$55, dividend at the end of the year will \$5, constant growth rate in dividends is 9%. What is the required rate of return?
- 6) Assume annual dividend \$15; preferred stock \$75; flotation or selling cost \$8. What is the cost of preferred stock?
- 7) Suppose CU Pirates, Inc. is expected to pay a \$5 dividend in one year. If the dividend is expected to grow at 10% per year and the required return is 25%, what is the price?
- 8) Suppose Big C, Inc. just paid a dividend of \$1.5. It is expected to increase its dividend by 3% per year. If the market requires a return of 10% on assets of this risk, how much should the stock be selling for?
- 9) A firm is 40% financed by debt with a yield-to-maturity of 8.5%. The equity has a beta of 1.3, the market risk premium is 8.4% and the risk-free rate is 3.8%. What is the firm's weighted average cost of capital if the tax rate is 21%?
- 10) What proportion of a firm is equity financed if the WACC is 14%, the before-tax cost of debt is 10.77%, the tax rate is 21%, and the required return on equity is 18%?

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11) Which Project you prefer according to NPV if the initial investment is 100,000TL?
($r=10\%$)

Year	Investment A	Investment B
2015	13.000	80.000
2016	20.000	13.000
2017	33.000	7.000
2018	34.000	6.000
2019	66.000	6.000

12) What are the advantages and disadvantages of Payback Period Method?

13) What is the relationship between capital structure and capital budgeting?

14) The 2021 balance sheet of SAM Ltd, showed long-term debt of 2.225.000 TL, and the 2022 balance sheet showed long-term debt of 2.525.000 TL. The 2022 income statement showed an interest expense of 350.000 TL. what was the firm's cash flow to creditors during 2022?

15) Calculate the payback period for each project. Which project has the shortest payback period?

Year	Project A	Project B
Year 0	-20.000	-20.000
Year 1	5.500	7.000
Year 2	5.500	3.000
Year 3	5.500	4.500
Year 4	5.500	2.500
Year 5	5.500	5.000

16) Calculate the Net Present Value of the following Project X and Y for discount rates of 12%. And also calculate the Profitability Index for each investment, Which Project should you take?

Cash Flows	Investment X	Investment Y
Year 0	-2000 TL	-1000 TL
Year 1	1200	200
Year 2	800	600
Year 3	1000	1300

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- 17) Medco Corporation has a systematic risk of 0,9. The market risk premium is 7% and the risk-free rate is 8%. The yield on the company's debt is 5%, and the firm has a 21% marginal tax rate. Long term debt of firm is 4,000,000 TL and equity is 8,000,000 TL. What is the Weighted Average of the company?
- 18) Which capital budgeting methods consider time value of money?
- 19) The 2021 balance sheet of SAM Ltd, showed long-term debt of 1.250.000 TL, and the 2022 balance sheet showed long-term debt of 1.600.000 TL. The 2022 income statement showed an interest expense of 90.000 TL. what was the firm's cash flow to creditors during 2022?
- 20) Calculate the Net Present Value of the following Project X and Y for discount rates of 12%. And also calculate the Profitability Index for each investment, Which Project should you take?
- 21) Suppose the stock of Stansfield Enterprises, a publisher of online presentations, has a beta of 1.6. The firm is 100% equity financed. Assume a risk-free rate of 7% and a market risk premium of 13%. What is the appropriate discount rate for an expansion of this firm?
- 22) Suppose that:
Company's equity beta = 1.4
Current risk-free rate = 9%
Expected market risk premium = 7% What is the cost of equity capital?
- 23) During the year, the company had gross sales of \$865,000. the firm's cost of goods sold and selling expenses were \$455,000 and \$210,000, respectively. The company also had notes payable of \$680,000. these notes carried an interest rate of 4 percent. Depreciation was \$105,000. the tax rate was 21 percent.
- a) What was the company's net income?
b) What was the company's operating cash flow?

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24) Calculate the Canadian Enterprises' Operating Cash Flow.

CANADIAN ENTERPRISES
2015 Income Statement (\$ millions)

Net sales	\$ 1,509
Cost of goods sold	750
Depreciation	<u>65</u>
Earnings before interest and taxes	\$ 694
Interest paid	<u>70</u>
Income before taxes	\$ 624
Taxes	<u>250</u>
Net income	<u>\$ 374</u>
Addition to retained earnings	\$309
Dividends	65

25) A company has net working capital of \$3,570. If all its current assets were liquidated, the company would receive \$7,880. What are the company's current liabilities?

26) Reliable Electric is a regulated public utility, and it is expected to provide steady dividend growth of 5% per year for the indefinite future. Its last dividend was \$5 per share; the stock sold for \$60 per share just after the dividend was paid. What is the company's cost of equity?

27) Suppose you are offered \$10,700 today but must make the following payments:

Year 0	– \$10,700
Year 1	\$4,900
Year 2	\$3,900
Year 3	\$2,300
Year 4	\$2,800
Year 5	\$1,500

- a. What is the NPV of the offer if the appropriate discount rate is 20 percent?
- b. What is the NPV of the offer if the appropriate discount rate is 10 percent?

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28) Given the following information, calculate the weighted average cost of capital for ABC Company. Line up the calculations in the order shown in the Table.

Percent of capital structure:

Preferred stock.....	20%
Common equity	40
Debt	40

Additional information:

Corporate tax rate	25%
Dividend, preferred	\$6.50
Last Dividend, expected common	\$2.00
Price, preferred	\$110.00
Growth rate.....	6%
Bond yield	8.5%
Flotation cost, preferred	\$4.20
Price, common.....	\$80.00

29) Schwert Corporation shows the following information on its 2022 income statement:

sales=\$800,000; costs=\$250,000; other expenses=\$10,000; depreciation expense=\$40,000; interest expense=\$30,000; taxes=\$35,500; dividends=\$15,500.

In addition, you're told that the firm issued \$10,000 in new equity during 2022 and redeemed \$8,000 in outstanding long-term debt.

- a. What is the 2022 operating cash flow?
- b. What is the 2022 cash flow to creditors?
- c. What is the 2022 cash flow to stockholders?
- d. What is the 2022 cash flow from assets?

30) Explain distinctions between Fixed Assets and Current Assets.