46.5

Finance and Banking Dept.
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Second Exam FINN 230

Instructor

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Section: 2

MULTIPLE CHOICE

1.	~~D B A~~
2.	D & B
3.	A
4.	B
5.	a
6.	A/C
7.	A
8.	A
9.	a
10.	D

9

1) Which of the following statements is most correct?
   a) The NPV method assumes that cash flows will be reinvested at the cost of capital, while the IRR method assumes reinvestment at the IRR.
   b) The NPV method assumes that cash flows will be reinvested at the risk-free rate, while the IRR method assumes reinvestment at the IRR.
   c) The NPV method assumes that cash flows will be reinvested at the cost of capital, while the IRR method assumes reinvestment at the risk-free rate.
   d) The NPV method does not consider the inflation premium.

2) A major disadvantage of the payback period is that it
   a) Is useless as a risk indicator.
   b) Ignores cash flows beyond the payback period.
   c) Does not directly account for the time value of money.
   d) Statements b and c are correct.

3) Which of the following statements is most correct?
   a) If a project's internal rate of return (IRR) exceeds the cost of capital, then the project's net present value (NPV) must be positive.
   b) If Project A has a higher IRR than Project B, then Project A must also have a higher NPV.
   c) The IRR calculation implicitly assumes that all cash flows are reinvested at a rate of return equal to the cost of capital.
   d) Statements a and c are correct

4) When company has capital rationing this means
   a) Unlimited capital
   b) Limited capital
   c) Independent projects
   d) Mutually inclusive

5) The discount rate that forces a project's NPV to equal zero.
   a) IRR
   b) PI
   c) NPV
   d) Capital budget

6) A capital investment proposal should be accepted if its NPV is
   a) Positive ✓
   b) Negative
   c) Zero

7) If two mutually exclusive projects are being evaluated and one project has a higher NPV while the other project has a higher IRR, the project with the higher_____should be preferred
   a) NPV
   b) IRR
   c) Both
   d) Not relevant

8) -------expenditures are the one that is related to the core of the business and is less than one year

a) Operating
b) Investing
c) Capital
d) Financing

9) You have a stock with D_1 2$ and its price is 30$ if the cost of equity is 10% what is the growth.

a) 3.33%
b) -----
c) 13.33%
d) Not enough information

10) -----------is cash inflow - Invested Capital * Weighted Average Cost of Capital (WACC)

a) NPV
b) APR
c) PI
d) EVA

Question 1

Billick Brothers is estimating its WACC. The company has collected the following information:

- Its capital structure consists of 40 percent debt and 60 percent common equity.
- The company has 20-year bonds outstanding with a 9 percent annual coupon that are trading at par.
- The company's tax rate is 40 percent.
- The risk-free rate is 5.5 percent.
- The market risk premium is 5 percent.
- The stock's beta is 1.4.

What is the company's WACC?

$$dept = \frac{90 + \frac{1000}{20}}{\frac{1000}{2}} = 28\% * (1 - 40\%) = 16.8$$

-1

$r = Rf + \beta(Rm - Rf)$

$5.5\% + 1.4(5\%) = 12.5\%$

$WACC = 12.5\% * 60\% + 16.8 * 40\%$

$= 14.22$

Question 2

Flaherty Electric has a capital structure that consists of 60 percent equity, 10% preferred stock and 30 percent debt. The company's long-term bonds have a before-tax yield to maturity of 8.4 percent. The company uses the DDM approach to determine the cost of equity. Flaherty's common stock currently trades at $40.5 per share and it is seem to be 2 dollars undervalued and has 2% floatation cost. The year-end dividend (D_1) is expected to be $2.50 per share, and the dividend is expected to grow forever at a constant rate of 7 percent a year. The company estimates that it will have to issue new common stock to help fund this year's projects. The company's tax rate is 40 percent. The preferred stock is selling at 30 dollar and it is overvalued by 1 dollar and pays dividend 3 dollars.

What is the cost of debt after tax

What is the cost of preferred stock

What is the cost equity

What is the company's weighted average cost of capital, WACC?

dept = 8.4(1 − 40%) = 5.04%

$$PS = \frac{2}{29} = 6.8\%$$

−5

$$CS = \frac{D}{NP} + g$$

NP was
−2
−20
18.5

$$\frac{2.50}{18.5} + 7\% = 20.5\%$$

WACC = 5.04 * 30% + 10% * 6.8% + 20.5 * 60%

~~1.512~~ + 6.8 * 10^{-3} + .123

.0162

= 14.6

Question 3

Hamilton Company's 8 percent coupon rate, quarterly payment, $1,000 par value bond, which matures in 20 years, currently sells at a price of $686.86. The company's tax rate is 40 percent. What is the firm's component cost of debt for purposes of calculating the WACC?

$$YTM = \frac{\frac{80}{4} + \frac{1000 - 686.8}{4 \times 20}}{\frac{1686.8}{2}} =$$

$$\frac{20 + 3.915}{843} = 2.8(1 - 40) =$$

1,70

Question 4

The Seattle Corporation has been presented with an investment opportunity that will yield cash flows of $30,000 per year in Years 1 through 4, $35,000 per year in Years 5 through 9, and $40,000 in Year 10. This investment will cost the firm $150,000 today, and the firm's cost of capital is 10 percent. What is the payback period for this investment?

PBP 30,000 30,000 30,000 30,000 $\frac{30,000}{35,000}$

1 + 1 + 1 + 1 4.85

PBP = 4.85

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Question 5

Coughlin Motors is considering a project with the following expected cash flows:

Year	Project Cash Flow
0	-$700 million
1	200 million
2	370 million
3	225 million
4	700 million

The project's WACC is 10 percent.
What is the project's payback?
NPV
PI

$$\frac{200}{(1+10\%)^1} + \frac{370}{(1+10\%)^2} + \frac{225}{(1+10\%)^3} + \frac{700}{(1+10\%)^4}$$

$$181.8 + 305.7 + 169.04 + 478.14$$
$$= 1134.6 - 700 = 434.6m.$$

$$PI = \frac{1134.6}{700} = 1.6$$

$$BPP = 200 + 370 + \frac{130}{225}$$
$$= 1 + 1 + .57$$
$$= 2.57$$