# Module 4 Quiz

Passed

**15/15** points earned (100%)

Quiz passed!

Correct

1/1 points

1. Consider the following situation in which firm A acquires firm B in a one-for-one stock deal:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Firm A | Firm B | Merged Firm |
| Earnings | 120 | 120 | 230 |
| # shares | 100 | 50 | 150 |
| Price/share | 30 | 30 |  |
| EPS | 1.2 | 2.4 | 1.53 |

Is the following statement true or false?

Despite the positive impact of the merger on the acquirer’s EPS (earnings-per-share), this acquisition is probably bad for the shareholders of the acquirer because it has a negative effect on total profits.

1. **True**
2. False

Correct

1/1 points

2. A CFO is considering an acquisition of a target that is currently worth 3 billion dollars. The acquisition will produce annual after-tax cost savings of 70 million dollars. This annual cost savings is expected to begin in two years and to grow at the rate of inflation (assume it is 1%). In addition, the CFO expects that the acquisition will create an after-tax integration cost of 250 million dollars. Assume the integration cost will occur one year from now. The current discount rate of the acquirer is 10%.

The NPV of the synergies associated with this acquisition is \_\_\_\_\_\_\_\_\_.

1. **480 million**
2. 420 million
3. 725 million
4. 545 million

Correct

1/1 points

3. A CFO is considering an acquisition of a target that is currently worth 3 billion dollars. The acquisition will produce annual after-tax cost savings of 70 million dollars. This annual cost savings is expected to begin in two years and to grow at the rate of inflation (assume it is 1%). In addition, the CFO expects that the acquisition will create an after-tax integration cost of 250 million dollars. Assume the integration cost will occur one year from now. The current discount rate of the acquirer is 10%.

Which of the following values would not be a reasonable price to offer to the target?

1. 3.1 billion
2. 3.3 billion
3. 3.25 billion
4. **2.9 billion**

Correct

1/1 points

4. A company that has equity value of 75 billion dollars is proposing an acquisition of a competitor in the same industry whose equity is worth 41 billion dollars. The synergies associated with the merger have been estimated to be equal to 9 billion dollars.

How much should the acquirer pay for the target in this case?

1. **Between 41 and 50 billion dollars**
2. Between 41 and 75 billion dollars
3. Whatever is necessary to get the deal done.
4. Less than 41 billion dollars

Correct

1/1 points

5. A company that has equity value of 75 billion dollars is proposing an acquisition of a competitor in the same industry whose equity is worth 41 billion dollars. The synergies associated with the merger have been estimated to be equal to 9 billion dollars.

Suppose that the acquirer has 4 billion shares outstanding, and the target has 5 billion shares outstanding. Assume that the acquirer is paying 50 billion for the equity of the target and that the acquirer stock price will stay at 18.75 dollars a share. What should be the exchange ratio for this merger in a stock deal?

1. 1 share of the acquirer for each target share
2. 0.44 shares of the acquirer for each target share
3. **0.53 shares of the acquirer for each target share**
4. 1.875 shares of the acquirer for each target share

Correct

1/1 points

6. Almeida and partners (a private equity firm) is considering a LBO of Example Inc.,which has an equity value of 10B dollars. Example Inc. requires a 20% premium to complete the deal. Almeida and partners has 1.5B in cash to finance the deal and is planning to finance the rest with a new bank loan. The plan is to buy 100% of the shares of Example Inc. and take it private. Almeida and partners will assume all the existing debt of Example Inc. (existing debt is equal to 2B). Example Inc. has no cash in its balance sheet.

The new bank loan that Almeida and partners needs to complete this deal is equal to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

1. 12 billion
2. **10.5 billion**
3. 9 billion
4. 10 billion

Correct

1/1 points

7. Consider the example of sensitivity analysis that we discussed in class (in the spreadsheet Sensitivity.xls).

What happens to the NPV and the IRR of the project when the cost per unit goes from 0.8 to 2 dollars?

1. **The IRR goes to 5.7%, and the NPV goes to $-3,756.**
2. The IRR goes to 7.2%, and the NPV goes to $-3,756.
3. The IRR goes to 7.2%, and the NPV goes to $-1,235.
4. The IRR is unchanged, and the NPV goes to $-1,235.

Correct

1/1 points

8. Is the following statement true or false? If there is a 10% chance that the cost per unit will be equal to 2 dollars, you should reject the project because there is a significant chance that the NPV will be negative.

1. True
2. **False**

Correct

1/1 points

9. Suppose a company has a required return on equity equal to 9%. Calculate the company’s Beta if the 30-year government bond yield is 3% and the market risk premium is 5%.

1. 0.83
2. **1.2**
3. 1
4. 1.4

Correct

1/1 points

10. Your company’s required return on debt is 6%, its tax rate is 30%, and its required return on equity is 10%. The company has 20 billion dollars of debt, and book equity is 10 billion dollars. The stock price is 10 dollars a share, and the company has 5 billion shares outstanding. The company’s WACC is \_\_\_\_\_\_\_\_\_.

1. You don't have sufficient information to estimate WACC.
2. **8.3%**
3. 9.3%
4. 7.1%

Correct

1/1 points

11. Consider the following data. The figures are in millions of dollars.

**Balance sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| Cash | 3000 | Current liabilities | 5000 |
| Other current assets | 7000 | Long-term debt | 25000 |
| Non-current assets | 50000 | Equity | 30000 |

**Income statement**

|  |  |
| --- | --- |
| Operating income | 6000 |
| Interest payment | 2500 |
| Income before taxes | 3500 |
| Taxes | 1050 |
| Net income | 2450 |

The company's OPAT is equal to \_\_\_\_\_\_\_\_.

1. 2,450
2. 6,000
3. **4,950**
4. 3,500

Correct

1/1 points

12. Consider the following data. The figures are in millions of dollars.

**Balance sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| Cash | 3000 | Current liabilities | 5000 |
| Other current assets | 7000 | Long-term debt | 25000 |
| Non-current assets | 50000 | Equity | 30000 |

**Income statement**

|  |  |
| --- | --- |
| Operating income | 6000 |
| Interest payment | 2500 |
| Income before taxes | 3500 |
| Taxes | 1050 |
| Net income | 2450 |

The company's operating assets are equal to \_\_\_\_\_\_\_\_\_\_.

1. 30,000
2. **57,000**
3. 60,000
4. 50,000

Correct

1/1 points

13. Consider the following data. The figures are in millions of dollars.

**Balance sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| Cash | 3000 | Current liabilities | 5000 |
| Other current assets | 7000 | Long-term debt | 25000 |
| Non-current assets | 50000 | Equity | 30000 |

**Income statement**

|  |  |
| --- | --- |
| Operating income | 6000 |
| Interest payment | 2500 |
| Income before taxes | 3500 |
| Taxes | 1050 |
| Net income | 2450 |

If the required return on debt is 5%, the required return on equity is 12%, and the market value of equity is 80 billion dollars, the WACC is \_\_\_\_\_\_\_\_\_.

1. 11.5%
2. 12%
3. 9.5%
4. **10%**

Correct

1/1 points

14. Consider the following data. The figures are in millions of dollars.

**Balance sheet**

|  |  |  |  |
| --- | --- | --- | --- |
| Cash | 3000 | Current liabilities | 5000 |
| Other current assets | 7000 | Long-term debt | 25000 |
| Non-current assets | 50000 | Equity | 30000 |

**Income statement**

|  |  |
| --- | --- |
| Operating income | 6000 |
| Interest payment | 2500 |
| Income before taxes | 3500 |
| Taxes | 1050 |
| Net income | 2450 |

EVA (economic value added) is equal to \_\_\_\_\_\_\_\_\_.

1. 729
2. 325
3. -564
4. **-750**

Correct

1/1 points

15. Is the following statement true or false?

The negative EVA shows that the company did not generate economic profits this year. However, there is no need to restructure operations if the EVA is expected to become positive in future years.

1. **True**
2. False

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