

[BSBA] AY 2016-2017 ASSESSMENT

Phase 1: Assessment Plan

Learning Outcome Assessed:

[BSBA] Learning Outcome 7

Students will demonstrate ability to identify relevant information and apply specific knowledge and analysis skills to assess the economic value of real/financial assets or investment opportunities and make appropriate decision to create value.

We assess this learning outcome with the following measurable traits.

1. Identify/construct relevant cash flows for valuing a financial/real asset or an investment opportunity
2. Estimate/calculate risk adjusted discount rate for a given risky asset or investment
3. Value assets or investment opportunities and make appropriate decision to create value

A set of multi-choice questions were used to assess each of the above traits. See Evaluation Process for details.

Assessment Method:

A set of multi-choice questions were used to assess each trait and those questions were embedded in homework assignments and some tests assigned across all sections of BUS 305 offered in Fall 2016. The questions used are provided in the Evaluation Process section.

Targeted performance, based on rubrics:

Our target is to have a success rate of at least 80% for each of the three traits.

Evaluation Process:

The questions below were developed to assess each trait.

Measurable Trait 1: Identify/construct relevant cash flows for valuing a financial/real asset or an investment opportunity

1. Jane has been offered a 15-year bond issued by Barone, Inc., at a price of \$943.22. The bond has a coupon rate of 9 percent and pays the coupon semiannually. Similar bonds in the market will yield 10 percent today. What are the cash flows from this bond?
2. BioSci, Inc., a biotech firm has forecast the following growth rates for the next three years: 30 percent, 25 percent, and 20 percent. The company then expects to grow at a constant rate of 7 percent forever. The company paid a dividend of \$2.00 last week. What are the dividends expected over the next four years? (Round final answers to one decimal place)

3. A firm is considering taking a project that will produce \$12 million of revenue per year. Cash expenses will be \$5 million, and depreciation expenses will be \$1 million per year. If the firm takes that project, then it will reduce the cash revenues of an existing project by \$2 million. What is the free cash flow on the project, per year, if the firm is in the 40 percent marginal tax rate?

Franco is considering the purchase of new equipment. The equipment costs \$350,000, and an additional \$110,000 is needed to install it. The equipment will be depreciated straight-line to zero over a five-year life. The equipment will generate additional annual revenues of \$265,000, and it will have annual cash operating expenses of \$83,000. The equipment will be sold for \$85,000 after five years. An inventory investment of \$73,000 is required during the life of the investment. Franco is in the 40 percent tax bracket and its cost of capital is 10 percent.

4. What is the initial outlay for this project?

5. What are the annual after-tax operating cash flows for years 1-5?

6. What is the terminal year after-tax non-operating cash flow in the previous question?

Measurable Trait 2: Estimate risk adjusted discount rate/cost of capital for a given risky investment

1. RetRyder Hand Trucks has a preferred share issue outstanding that pays an annual dividend of \$1.30 per year. The current cost of preferred equity for RetRyder is 9 percent. If RetRyder issues additional preferred shares that pay exactly the same dividend and the investment banker retains 8 percent of the sale price proceeds, what is the cost of new preferred shares for RetRyder?

2. TeleNyckel, Inc. has a beta of 1.4 and is trying to calculate its cost of equity capital. If the risk-free rate of return is 9 percent and the market risk premium is 5 percent, then what is the firm's after-tax cost of equity capital if the firm's marginal tax rate is 30 percent?

3. Beckham Corporation has semiannual bonds outstanding with 13 years to maturity and the bonds are currently priced at \$746.16. If the bonds have a coupon rate of 8.5 percent, then what is the after-tax cost of debt for Beckham if its marginal tax rate is 35%? Round your intermediate calculation to two decimal places & final percentage answer to three decimal places.

4. Droz's Hiking Gear, Inc. has found that its common equity capital shares have a beta equal to 1.5 while the risk-free return is 8 percent and the expected return on the market is 14 percent. It has 7-year semiannual maturity bonds outstanding with a price of \$767.03 that have a coupon rate of 7 percent. The firm is financed with \$120,000,000 of common shares (market value) and \$80,000,000 of debt. What is the after-tax weighted average cost of capital for Droz's, if it is subject to a 35 percent marginal tax rate? Round your final percentage answer to two decimal places.

Measurable Trait 3. Value real/financial assets or investment opportunities and make appropriate decision to create value

1. Jane has been offered a 15-year bond issued by Barone, Inc., at a price of \$943.22. The bond has a coupon rate of 9 percent and pays the coupon semiannually. Similar bonds in the market will yield 10 percent today. Should she buy the bonds at the offered price? (Do not round intermediate computations. Round your final answer to the nearest dollar.)

2. BioSci, Inc., a biotech firm has forecast the following growth rates for the next three years: 30 percent, 25 percent, and 20 percent. The company then expects to grow at a constant rate of 7 percent for the next several

years. The company paid a dividend of \$2.00 last week. If the required rate of return is 16 percent, what is the market value of this stock? (Do not round intermediate calculations. Round final answer to two decimal places.)

3. Ajax Company has issued perpetual preferred stock with a par of \$100 and a dividend of 5.5 percent. If the required rate of return is 7.5 percent, what is the stock’s current market price?

4. Franco is considering the purchase of new equipment. The equipment costs \$350,000, and an additional \$110,000 is needed to install it. The equipment will be depreciated straight-line to zero over a five-year life. The equipment will generate additional annual revenues of \$265,000, and it will have annual cash operating expenses of \$83,000. The equipment will be sold for \$85,000 after five years. An inventory investment of \$73,000 is required during the life of the investment. Franco is in the 40 percent tax bracket and its cost of capital is 10 percent. What is the project NPV?

5. Your mother is trying to choose one of the following bank CDs to deposit \$10,000. Which will offer the highest future value if she plans to invest for three years? A) 3.50% compounded daily, B) 3.75% compounded annually, C) 3.25% compounded monthly, D) 3.40% compounded quarterly.

The questions above were embedded in the homework assignments and some tests assigned across all sections of the BUS 305: Principles of Finance offered in Fall 2016.

Course where learning outcome was assessed:

Learning Outcome 7 was assessed in all sections of BUS305: Principles of Finance offered in Fall 2016.

Evaluator(s): Cathy Goldberg, Mehrnoush Shahhosseini, Nicholas Tay

Phase 2: Results Assessment and Planned Action

Results:

	Success Rate	Overall	
<i>Measurable Trait 1: Identify/construct relevant cash flows for valuing a financial/real asset or an investment opportunity</i>	88.9%	Total Number of Students in Sample	Total Number of Students Answering Correctly
1. Jane has been offered a 15-year bond issued by Barone, Inc., at a price of \$943.22. The bond has a coupon rate of 9 percent and pays the coupon semiannually. Similar bonds in the market will yield 10 percent today. What are the cash flows from this bond?	89.1%	238	212

2. BioSci, Inc., a biotech firm has forecast the following growth rates for the next three years: 30 percent, 25 percent, and 20 percent. The company then expects to grow at a constant rate of 7 percent forever. The company paid a dividend of \$2.00 last week. What are the dividends expected over the next four years? (Round final answers to one decimal place)	93.6%	235	220
3. A firm is considering taking a project that will produce \$12 million of revenue per year. Cash expenses will be \$5 million, and depreciation expenses will be \$1 million per year. If the firm takes that project, then it will reduce the cash revenues of an existing project by \$2 million. What is the free cash flow on the project, per year, if the firm is in the 40 percent marginal tax rate?	92.3%	233	215
Franco is considering the purchase of new equipment. The equipment costs \$350,000, and an additional \$110,000 is needed to install it. The equipment will be depreciated straight-line to zero over a five-year life. The equipment will generate additional annual revenues of \$265,000, and it will have annual cash operating expenses of \$83,000. The equipment will be sold for \$85,000 after five years. An inventory investment of \$73,000 is required during the life of the investment. Franco is in the 40 percent tax bracket and its cost of capital is 10 percent.			
4. What is the initial outlay for this project?	87.4%	231	202
5. What are the annual after-tax operating cash flows for years 1-5?	88.7%	231	205
6. What is the terminal year after-tax non-operating cash flow in the previous question?	82.3%	231	190
<i>Measurable Trait 3. Value real/financial assets or investment opportunities and make appropriate decision to create value</i>	88.8%	<i>Total Number of Students in Sample</i>	<i>Total Number of Students Answering Correctly</i>
1. Jane has been offered a 15-year bond issued by Barone, Inc., at a price of \$943.22. The bond has a coupon rate of 9 percent and pays the coupon semiannually. Similar bonds in the market will yield 10 percent today. Should she buy the bonds at the offered price? (Do not round intermediate computations. Round your final answer to the nearest dollar.)	84.0%	231	194
2. BioSci, Inc., a biotech firm has forecast the following growth rates for the next three years: 30 percent, 25 percent, and 20 percent. The company then expects to grow at a constant rate of 7 percent for the next several years. The company paid a dividend of \$2.00 last week. If the required rate of return is 16 percent, what is the market value of this stock? (Do not round intermediate calculations. Round final answer to two decimal places.)	86.9%	236	205

3. Ajax Company has issued perpetual preferred stock with a par of \$100 and a dividend of 5.5 percent. If the required rate of return is 7.5 percent, what is the stock's current market price?	94.5%	235	222
4. Franco is considering the purchase of new equipment. The equipment costs \$350,000, and an additional \$110,000 is needed to install it. The equipment will be depreciated straight-line to zero over a five-year life. The equipment will generate additional annual revenues of \$265,000, and it will have annual cash operating expenses of \$83,000. The equipment will be sold for \$85,000 after five years. An inventory investment of \$73,000 is required during the life of the investment. Franco is in the 40 percent tax bracket and its cost of capital is 10 percent. What is the project NPV?	85.7%	230	197
5. Your mother is trying to choose one of the following bank CDs to deposit \$10,000. Which will offer the highest future value if she plans to invest for three years? A) 3.50% compounded daily, B) 3.75% compounded annually, C) 3.25% compounded monthly, D) 3.40% compounded quarterly.	93.3%	238	222
<i>Measurable Trait 2: Estimate risk adjusted discount rate/cost of capital for a given risky investment</i>	94.3%	<i>Total Number of Students in Sample</i>	<i>Total Number of Students Answering Correctly</i>
1. RetRyder Hand Trucks has a preferred share issue outstanding that pays an annual dividend of \$1.30 per year. The current cost of preferred equity for RetRyder is 9 percent. If RetRyder issues additional preferred shares that pay exactly the same dividend and the investment banker retains 8 percent of the sale price proceeds, what is the cost of new preferred shares for RetRyder?	92.3%	235	217
2. TeleNyckel, Inc. has a beta of 1.4 and is trying to calculate its cost of equity capital. If the risk-free rate of return is 9 percent and the market risk premium is 5 percent, then what is the firm's after-tax cost of equity capital if the firm's marginal tax rate is 30 percent?	97.5%	236	230
3. Beckham Corporation has semiannual bonds outstanding with 13 years to maturity and the bonds are currently priced at \$746.16. If the bonds have a coupon rate of 8.5 percent, then what is the after-tax cost of debt for Beckham if its marginal tax rate is 35%? Round your intermediate calculation to two decimal places & final percentage answer to three decimal places.	97.5%	236	230
4. Droz's Hiking Gear, Inc. has found that its common equity capital shares have a beta equal to 1.5 while the risk-free return is 8 percent and the expected return on the market is 14 percent. It has 7-year semiannual maturity bonds outstanding with a price of \$767.03 that have a coupon rate of 7 percent. The firm is financed	89.8%	236	212

<p>with \$120,000,000 of common shares (market value) and \$80,000,000 of debt. What is the after-tax weighted average cost of capital for Droz's, if it is subject to a 35 percent marginal tax rate? Round your final percentage answer to two decimal places.</p>			
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Overall, students met our target of 80% success rate for each of the three traits. The performance for individual question used in the assessment also exceeded the targeted cut-off of 80%. However, from looking at the variation of the scores across the questions, we have identified a few questions that need to be reworded or replaced to enable us to better assess a specific trait. They are questions 4 and 6 for measurable trait#1, and questions 1 and 4 for measurable trait#3. In general, these questions were either unnecessarily convoluted or created obstacles not related to what we specifically wanted to measure. We present the revised questions in the Suggested Action section below.

Suggested Action:

We suggest revising/replacing the questions identified in the previous section and assess the students again this term (Spring 2017). All the assessment questions will be incorporated into homework assignments and/or tests.

Below are the new questions for the assessment. Questions that have been revised or replaced are highlighted in yellow.

Measurable Trait 1: Identify/construct relevant cash flows for valuing a financial/real asset or an investment opportunity

1. Jane has been offered a 15-year bond issued by Barone, Inc., at a price of \$943.22. The bond has a coupon rate of 9 percent and pays the coupon semiannually. Similar bonds in the market will yield 10 percent today. What are the coupon payments and principle from this bond?

2. BioSci, Inc., a biotech firm has forecast the following growth rates for the next three years: 30 percent, 25 percent, and 20 percent. The company then expects to grow at a constant rate of 7 percent forever. The company paid a dividend of \$2.00 last week. What are the dividends expected over the next four years? (Round final answers to one decimal place)

3. A firm is considering taking a project that will produce \$12 million of revenue per year. Cash expenses will be \$5 million, and depreciation expenses will be \$1 million per year. If the firm takes that project, then it will reduce the cash revenues of an existing project by \$2 million. What is the free cash flow on the project, per year, if the firm is in the 40 percent marginal tax rate?

Franco is considering the purchase of new equipment. To begin the project, the equipment costs \$350,000, and an additional \$110,000 is needed to install it. An inventory investment cost of \$73,000 is also required during the life of the project. The equipment will be depreciated straight-line to zero over a five-year life. The equipment will generate additional annual revenues of \$265,000, and it will have annual cash operating expenses of \$83,000. The equipment will be sold for \$85,000 after five years. Franco is in the 40 percent tax bracket and its cost of capital is 10 percent.

4. What is the initial cost for this project?

5. What are the annual after-tax operating cash flows for years 1-5?

6. What is the terminal year after-tax salvage value?

7. What is the terminal year after-tax cash flow from the recovery of working capital?

Measurable Trait 2: Estimate risk adjusted discount rate/cost of capital for a given risky investment

1. RetRyder Hand Trucks has a preferred share issue outstanding that pays an annual dividend of \$1.30 per year. The current cost of preferred equity for RetRyder is 9 percent. If RetRyder issues additional preferred shares that pay exactly the same dividend and the investment banker retains 8 percent of the sale price proceeds, what is the cost of new preferred shares for RetRyder?
2. TeleNyckel, Inc. has a beta of 1.4 and is trying to calculate its cost of equity capital. If the risk-free rate of return is 9 percent and the market risk premium is 5 percent, then what is the firm's after-tax cost of equity capital if the firm's marginal tax rate is 30 percent?
3. Beckham Corporation has semiannual bonds outstanding with 13 years to maturity and the bonds are currently priced at \$746.16. If the bonds have a coupon rate of 8.5 percent, then what is the after-tax cost of debt for Beckham if its marginal tax rate is 35%? Round your intermediate calculation to two decimal places & final percentage answer to three decimal places.
4. Droz's Hiking Gear, Inc. has found that its common equity capital shares have a beta equal to 1.5 while the risk-free return is 8 percent and the expected return on the market is 14 percent. It has 7-year semiannual maturity bonds outstanding with a price of \$767.03 that have a coupon rate of 7 percent. The firm is financed with \$120,000,000 of common shares (market value) and \$80,000,000 of debt. What is the after-tax weighted average cost of capital for Droz's, if it is subject to a 35 percent marginal tax rate? Round your final percentage answer to two decimal places.

Measurable Trait 3. Value real/financial assets or investment opportunities and make appropriate decision to create value

1. Jane has been offered a 15-year bond issued by Barone, Inc. at a price of \$943.22. The bond has a coupon rate of 9 percent and pays the coupon semiannually. Investors buying these bonds today can expect to earn a yield to maturity of 10 percent. What is the current value of these bonds? Do not round intermediate computations. Round your final answer to the nearest dollar.
2. In the previous question, should Jane buy the bonds at the offered price?
3. BioSci, Inc., a biotech firm has forecast the following cash flows for the next three years: 1.5, 1.8, and 2.0. The company then expects to grow at a constant rate of 7 percent for the next several years. The company paid a dividend of \$2.00 last week. If the required rate of return is 16 percent, what is the market value of this stock? (Do not round intermediate calculations. Round final answer to two decimal places.)
4. Ajax Company has issued perpetual preferred stock with a par of \$100 and a dividend of 5.5 percent. If the required rate of return is 7.5 percent, what is the stock's current market price?
5. Your mother is trying to choose one of the following bank CDs to deposit \$10,000. Which will offer the highest future value if she plans to invest for three years? A) 3.50% compounded daily, B) 3.75% compounded annually, C) 3.25% compounded monthly, D) 3.40% compounded quarterly.
6. The Cyclone Golf Resorts is redoing its golf course at a cost of \$2,500,000. It expects to generate cash flows of \$500,000, \$1,000,000, and \$2,000,000 over the next three years. If the appropriate discount rate for the firm is 20

percent, what is the NPV of this project? (Do not round intermediate computations. Round final answer to nearest dollar.)

7. In the previous question, should Cyclone Golf Resorts accept the project?

Phase 3: Closing the Loop

(In the year that the assessment is made, this is good place to describe how the suggested actions might be evaluated in a future assessment cycle. When that cycle is complete, the results can be added to this document to finalize the report.)

See Suggested Action section.