# Module: Cost of Capital

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### Topics

This module includes the following topics:

Topic 1: Weighted-Average Cost of Capital

Topic 2: CAPM – Risk-free Rate and Market Risk Premium

Topic 3: CAPM – Betas

Topic 4: CAPM – Size Premiums

Topic 5: Cost of Long-term Debt

Topic 6: Alternate Cost of Equity Methods

Topic 7: Duff and Phelps

Topic 8: Cost of Capital at Canadian Companies

## Topic 1: Weighted-Average Cost of Capital

This topic provides an overview of how to calculate a firm’s weighted-average or marginal cost of capital.

### Readings

Introduction, Section 1.1

**Learning Problems**

WACC at Winnipeg Electric

WACC at Balmer

WACC at Jackson

WACC at Anderson

Issuance Costs at Wilson

WMCC at Greyhound

WMCC at Predator

WMCC at Allison with Project Risk

WMCC at Harrison with Project Risk

Adjusting Beta for Leverage

WMCC at Baxter

**Answer Keys**

WACC at Winnipeg Electric

WACC at Balmer

WACC at Jackson

WACC at Anderson

Issuance Costs at Wilson

WMCC at Greyhound

WMCC at Predator

WMCC at Allison with Project Risk

WMCC at Harrison with Project Risk

Adjusting Beta for Leverage

WMCC at Baxter

**Topic 2: CAPM – Risk-free Rate and Market Risk Premium**

The topic studies how to accurately calculate the risk-free rate and market risk premium used in CAPM.

**Readings**

Section 1.2

**Learning Problems**

Geometric and Arithmetic Mean

Historical Market Risk Premium at Grayson

Forward-Looking Market Risk Premium at Gagne

**Answer Keys**

Geometric and Arithmetic Mean

Historical Market Risk Premium at Grayson

Forward-Looking Market Risk Premium at Gagne

**Topic 3: CAPM – Betas**

This topic investigates the different methods used to calculate beta.

**Readings**

Section 1.3

**Learning Problems**

Calculating Beta at Stead

Industry and Peer Group Betas at Cascade

Accounting Beta at Excalibur

Accounting Beta at Allison

Unlevered and Levered Beta at Seymour

**Answer Keys**

Calculating Beta at Stead

Industry and Peer Group Betas at Cascade

Accounting Beta at Excalibur

Accounting Beta at Allison

Unlevered and Levered Beta at Seymour

**Topic 4: CAPM – Size Premiums**

This topic explores how the cost of equity can be adjusted to better reflect the higher risk of smaller firms.

**Readings**

Section 1.4

**Learning Problems**

None

**Topic 5: Cost of Long-term Debt**

This topic reviews the different techniques used to calculate a firm’s cost of long-term debt.

**Readings**

Section 1.5

**Learning Problems**

Weighted Average Cost of Debt at Ryerson

Weighted Average Cost of Debt at Sanders

Convertible Bonds at Grayson

Callable Bonds at Wilkinson

Yield Curve Approach at Ranson

WMCC at Wilcox

**Answer Keys**

Weighted Average Cost of Debt at Ryerson

Weighted Average Cost of Debt at Sanders

Convertible Bonds at Grayson

Callable Bonds at Wilkinson

Yield Curve Approach at Ranson

WMCC at Wilcox

**Topic 6: Alternate Cost of Equity Methods**

This topic investigates alternatives to CAPM when calculating a firm’s cost of equity.

**Readings**

Section 1.6

**Learning Problems**

Build-up Method at Creative Impressions

3-Stage Implied Cost of Equity at Rebecca

Fama and French 3-Factor Model at IBM

Fama and French 3-Factor Model at Delaware

**Answer Keys**

Build-up Method at Creative Impressions

3-Stage Implied Cost of Equity at Rebecca

Fama and French 3-Factor Model at IBM

Fama and French 3-Factor Model at Delaware

**Topic 7: Duff and Phelps**

This topic studies the variety of cost of capital information supplied by Duff and Phelps, the leading provider.

**Readings**

Section 1.7

**Learning Problems**

None

**Topic 8: Cost of Capital at Canadian Companies**

This topic looks at the popularity of the different cost of capital techniques in Canada and how they can be applied at a major corporation.

**Readings**

Section 1.8

**Learning Problems**

None

## Module Summary

In this module, you have learned how to calculate a firm’s weight-average or marginal cost of capital using advanced techniques.