### **Starting Soon**

# 2021 State Assessed Property Spring Forum



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#### Disclaimer

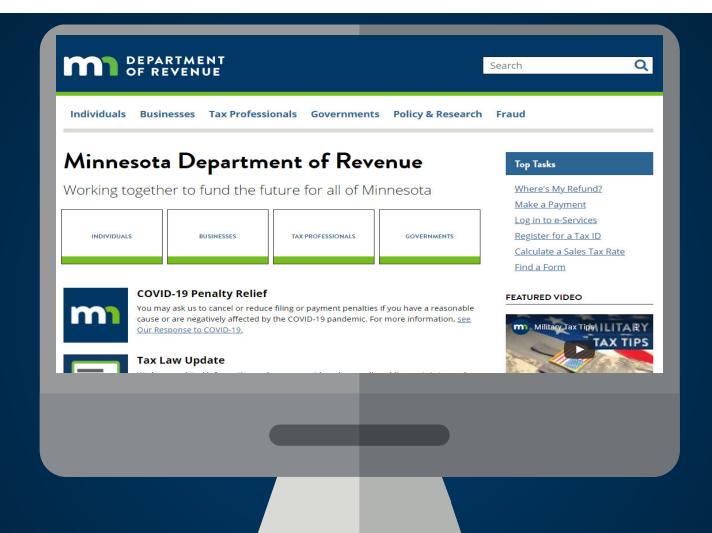
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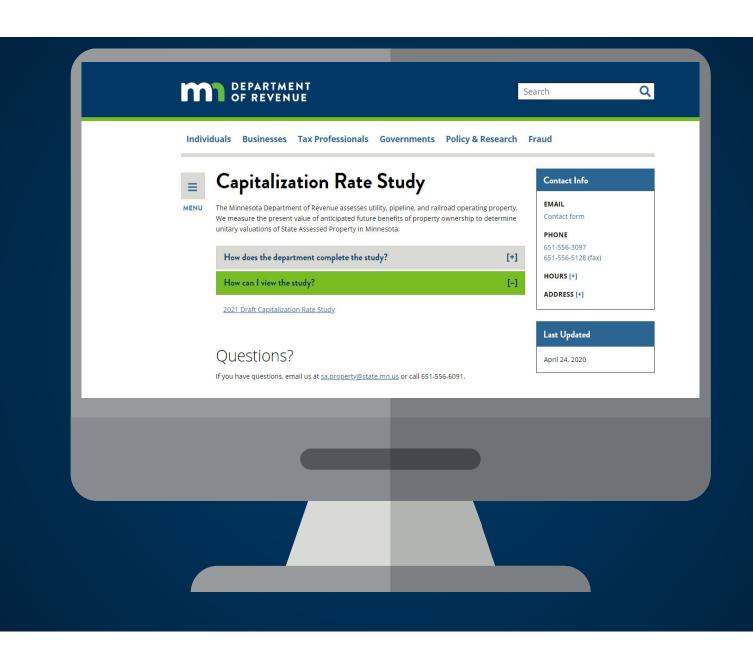
If you have any questions, contact us at sa.property@state.mn.us or 651-556-6119, or consult a tax professional.

# Agenda

- Draft capitalization study
- Opportunity for public comments









# Capitalization Rate Study and Methodologies

### Introduction

	Capital Structure	×	Market Rate	=	Weighted Rate
Debt	50%	×	6%	=	3%
Equity	50%	×	10%	=	5%
Combined Rate				=	8%

#### **Market News**

- S&P 500 Index record highs at end of 2020
  - Gain of 16.3%
- Yield on 30-year Treasury securities
  - 2.33% on January 2, 2020
  - 1.66% on January 4, 2021

### **Guideline Company Selection**

#### **Considerations:**

- Value Line industries
- Standard industrial classification codes
- Location
- Business segments
- Recent or current mergers/acquisitions
- Recent initial public offering

### **Market Rate of Equity**

Capital Asset Pricing Model:

Rate of Equity = (Equity Risk Premium x Beta) + Risk-Free Rate

### **Equity Risk Premium Estimates:**

- Ex post
- Supply side
- Duff & Phelps recommended BVR Geometric
- Three-stage ex ante
- Dr. Damodaran
- **Duke CFO Global Business Outlook Survey**

- Fernandez, Apellaniz, and Acin
- **BVR** Arithmetic

CAPM Data Inputs	2021 AY	Percent Change	
Risk-Free Rate	1.66%	-28.8%	
Ex Post (D&P)	7.25%	1.4%	
BVR - Historical, Arithmetic	5.90%	-0.2%	

### **Market Rate of Equity**

**Dividend Growth Model:** 

Rate of Equity = Dividend Yield + Growth Estimate

### **Market Rate of Equity**

Two-Stage Dividend Growth Model:

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Rate of Equity = (Dividend Yield x (1 + 0.5 x Avg Growth Rate))
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- + 0.67 x Short-term Growth Rate
- + 0.33 x Long-term Growth Rate

#### **Market Rate of Debt**

Yield to Maturity

#### **Market Rate of Preferred Stock**

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#### **Direct Rate**

### **Equity Component**

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### Other

- Flotation costs
- Company-specific risk
- Illiquidity

### Growth

- Short-term growth
- Long-term growth
- Inflation

#### Comments Welcome

Email comments to <a href="mailto:sa.property@state.mn.us">sa.property@state.mn.us</a> by March 31.

Sent your comments by chat.

### Looking Forward to the 2022 Study

- Yield on 20-Year Treasury security
- Duff & Phelps equity risk premium estimates
- Growth rate in three-stage dividend growth models
- Raw or adjusted beta
- Short-term debt

Railroad market segment

• Three-stage dividend growth model

• Business Valuation Resources – Cost of Capital Platform

• Indicated rate of equity

### **Appendices**

- Appendix A Electric
- Appendix B Gas Distribution
- Appendix C Gas Transmission Pipeline
- Appendix D Fluid Transportation Pipeline
- Appendix E Railroads
- Appendix F Ex Ante Calculations
- Appendix G Guideline Company Selection



### Data

# Electric

Electric	2021 AY	Percent Change
Yield rate	6.17%	-4%
Debt in capital structure	35%	3%
Equity in capital structure	65%	-2%
Cost of equity	7.79%	1%
Cost of debt	3.17%	-16%
Beta	0.86	41%
Single-stage dividend growth model	8.50%	2%
Two-stage dividend growth model	8.01%	3%
Dividend yield	3.45%	15%
Short-term earnings growth est.	5.50%	-5%

### **Gas Distribution**

Gas Distribution	2021 AY	Percent Change
Yield rate	6.43%	-9%
Debt in capital structure	38.00%	12%
Equity in capital structure	62.00%	-3%
Cost of equity	8.28%	-5%
Cost of debt	3.42%	-13%
Beta	0.87	34%
Single-stage dividend growth model	9.50%	-6%
Two-stage dividend growth model	8.86%	3%
Dividend yield	3.30%	16%
Short-term earnings growth	6.50%	-10%

# Gas Transmission Pipeline

Gas Transmission	2021 AY	Percent Change
Yield rate	9.61%	-21%
Debt in capital structure	48.00%	23%
Equity in capital structure	52.00%	-15%
Cost of equity	14.63%	-15%
Cost of debt	4.16%	4%
Beta	1.27	-6%
Single-stage dividend growth model	20.43%	-11%
Two-stage dividend growth model	18.02%	-5%
Dividend yield	8.20%	39%
Short-term earnings growth est.	12.00%	-29%

# Fluid Transportation Pipeline

Fluid Transportation	2021 AY	Percent Change
Yield rate	9.55%	-12%
Debt in capital structure	54.00%	42%
Equity in capital structure	46.00%	-26%
Cost of equity	15.07%	3%
Cost of debt	4.86%	1%
Beta	1.18	1%
Single-stage dividend growth model	21.50%	21%
Two-stage dividend growth model	19.94%	21%
Dividend yield	13.20%	53%
Short-term earnings growth est.	8.00%	-16%

# Railroad

Railroad	2021 AY	Percent Change
Yield rate	8.74%	-21%
Debt in capital structure	15.00%	-12%
Equity in capital structure	85.00%	2%
Cost of equity	9.80%	-23%
Cost of debt	2.70%	-22%
Beta	1.1	-4%
Single-stage dividend growth model	11.75%	-19%
Two-stage dividend growth model	9.65%	-15%
Dividend yield	1.40%	-13%
Short-term earnings growth est.	10.50%	-21%



# Questions?

sa.property@state.mn.us

### Open Forum

# **Public Comments**



# Thank You!

#### **Holly Soderbeck**

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