



# Financial Statements: Theory

## Regulated Utility Financial Analysis

- Financial Statements
- Cost of Capital
- Asset Valuation

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# Agenda

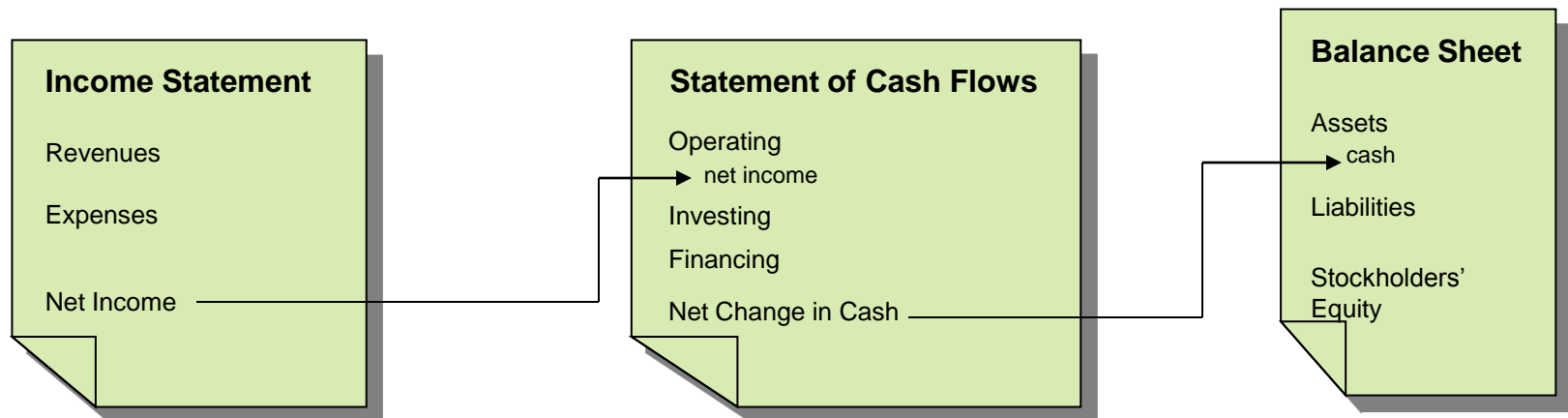
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- Overview of Utility Financial Statements
  - Financial Reporting
  - Staff Review of Statement Segments
- Overview of Cost of Capital
  - Ratemaking Capital Structure
  - Cost of Debt
  - Credit Ratings
  - Wall Street Investment
  - Cost of Equity
- Overview of Asset Valuation
  - Michigan Valuation Method
  - Used and Useful
- Q & A

# Financial Statements



- Financial Statements Provide a Summary of a Company's Business and Financial Performance for a Set Period of Time
- Companies that Sell or Issue Shares to the General Public are Legally Required to Provide Potential Investors with a Set of Financial Statements
- Michigan Regulated Utilities are Required to Submit Quarterly and Annual Financial Statements to the Securities and Exchange Commission (SEC)
- The SEC Regulates the U.S. Stock Market and Outlines the Methods and Requirements of Financial Reporting
- The SEC Requires Three Data Reporting Segments when Submitting Financial Statements:



## SEC Reporting Requirements

- The SEC Mandates a 'Narrative Account' which Provides for Management Discussion of Financial Results Compared to the Previous Year's Results
  - Must state reasons for change in results
  - Indicate factors that may impact future results
- Quarterly Financial Report Submitted to the SEC are Labeled 10-Q and Annual Financial Reports are Designated 10-K.
- Any Significant Change to a Company's Management, Debt or Equity Position, Legal Judgment, Asset Sale or Acquisition, or Other Important Business Matter Must be Reported to the SEC under the Designation 8-K
- Importance of Transparency – the General Investor has Access to the Same Information as the Connected Investor



## **Staff Review of the Income Statement**

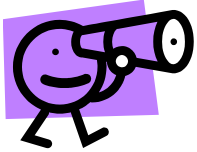
- Review Net Income for the Period and Compare to Last Year and Calculate Return On Equity (ROE)
- Check for Changes in Earnings Based on Results of Business Operations or Impacts from One Time Events such as Lawsuits, Land & Asset Sales, Outages/Disruptions, etc.
- Assess a Utility's Claim that Fuel Prices, O&M Costs or Other Costs have Increased that may Necessitate a Rate Increase or a Decrease as it may Apply
- Use in Staff Financial Ratio Analysis such as Interest Coverage Ratio and ROE



## **Staff Review of the Cash Flow Statement**

- Review the Dividends Paid Out to Shareholders or the Parent Company
- Review Proceeds Gained from the Issuance of Long-Term Debt and Cash to Retire or Buy Down Long-Term Debt
- Cash Losses or Gains from Remote or One Time Events such as Lawsuits, Land Sales, Asset Sales, Settlements
- Allow Ratio Analysis such as Funds From Operations to Total Debt and Free Operating Cash Flow to Debt (credit rating agencies use often)

# **Staff Review of the Balance Sheet**



- Review the Utility's Equity Position in Comparison to its Long-Term Debt Position
  - 50-50 Debt to Equity Split
- Review the Short-Term Debt Balance to see how Influential Short-Term Debt is to Company Financing
- Review the Retained Earnings to Check Income Retention Compared to Dividends to Shareholders
- Allow Ratio Analysis such as Debt/Equity Ratio, Funds From Operations/Total Debt, etc.

Staff Examines the Utility's Financial Statements, Financial Notes and Records to Arrive at Staff's Best Estimate of the Utility's:



# COST OF CAPITAL





# COST OF CAPITAL

- For Michigan Utilities - The overall cost of capital is comprised of the sum of the average weighted cost rates of each capital source used in the ratemaking capital structure that provides financial support to Michigan's jurisdictional rate base
- When a utility raises money and invests that money in company assets, the utility wants to earn at least the average cost of raising the funds. Thus, the cost of capital becomes the minimum desired rate of return for the utility

# **Cost of Capital Development**

1. The Cost of Capital is developed through the Ratemaking Capital Structure
2. The Ratemaking Capital Structure is primarily the outside and inside sources of capital the Utility uses to provide service and support to its business operations and investments
3. The outside sources of capital can be loans or debt obtained from creditors (Long-Term or Short-Term Debt), equity capital from the issuance of stock (common or preferred stock) and/or equity infusions from a parent company. The inside sources of capital are retained earnings, deferred taxes or tax credits

The primary components of the ratemaking capital structure for a typical Michigan utility are outlined in Chart 1:

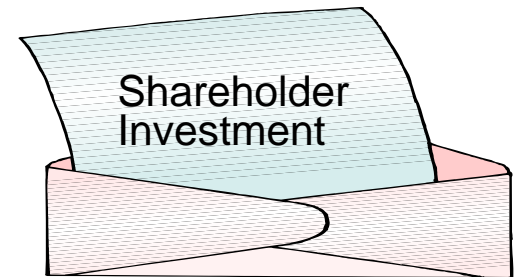
Chart 1		Cost of Capital Calculation		
<u>Description</u>	<u>Amount</u>	<u>Ratio</u>	<u>Cost Rate</u>	<u>Weighted Cost</u>
Long-Term Debt	\$500,000	38.91%	6.00%	2.33%
Short-Term Debt	\$90,000	7.01%	3.00%	0.21%
Preferred Stock	\$30,000	2.33%	4.50%	0.11%
Common Equity	\$490,000	38.13%	10.50%	4.00%
Deferred Federal Income Tax	\$150,000	11.67%	0.00%	0.00%
Job Development Invest Tax Cr.	<u>\$30,000</u>	<u>2.33%</u>	6.40%	<u>0.15%</u>
Total	\$1,285,000,000	100.00%		<b>6.80%</b>

The two most influential components in a cost of capital determination for a Utility are:

1. Long-Term Debt



2. Common Equity



# Long-Term Debt

- Long-Term Debt is priced on a net proceeds basis
- The Average Embedded Long-Term Debt Balance and Cost Rate is used in rate cases
- The utility's Credit Rating is relevant in determining the interest rate charged on Debt

Debt Description	Original Issue Date	Stated Maturity Date	Interest Rate (%)	Amount of Offering (\$000)	Price to Public (%)	Under- Writer Comp (%)	Under- Writer Comp (\$000)	Finance Expenses (%)	Finance Expenses (\$000)	(Premium) Discount (\$000)	Net Proceeds Received By Company	Cost Based on Net Proceeds
6.00% FMB	8/2003	2/2014	6.00%	200,000	99.84%	0.65%	1,300	0.12%	237	318	99.073%	6.1209%
6.875% Sr Note	3/1998	3/2018	6.875%	225,000	98.53%	0.88%	1,969	0.09%	203	3,308	97.565%	7.1049%

# Credit Rating

- Standard & Poor's (S&P), Moody's and Fitch - Top three credit rating agencies in the U.S.
- Provide an independent assessment of a Company's credit worthiness by assessing the credit quality of a Company's business segments and investment instruments
- Provides a credit rating measurement expressed by a "Ratings Symbol" that indicates the Company's risk of default on any particular debt instrument
- The highest rating is AAA indicating the highest credit quality down to a C or D rating indicating extreme credit risk or default
- An investment grade credit rating is AAA to BBB- indicating credit quality satisfactory enough for institutional, pension fund and overseas investment.
- In general the higher the credit rating of a company the better the company is perceived by Wall Street

Moody's		S&P		Fitch		Grading
Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	
Aaa	P-1	AAA	A-1+	AAA	F1+	Prime
Aa1		AA+		AA+		High grade
Aa2		AA		AA		
Aa3		AA-		AA-		
A1		A+	A-1	A+	F1	Upper medium grade
A2		A		A		
A3	P-2	A-	A-2	A-	F2	Lower medium grade
Baa1		BBB+		BBB+		
Baa2	P-3	BBB	A-3	BBB	F3	Lower medium grade
Baa3		BBB-		BBB-		
Ba1	Not prime	BB+	B	BB+	B	Non-investment grade speculative
Ba2		BB		BB		
Ba3		BB-		BB-		
B1		B+		B+		Highly speculative
B2		B		B		
B3		B-		B-		
Caa1		CCC+	C	CCC	C	Substantial risks
Caa2		CCC				Extremely speculative
Caa3		CCC-				In default with little prospect for recovery
Ca		CC				
		C				
C		D	/	DDD	/	In default
/				DD		
/				D		

# Nigeria's Credit Rating

Foreign Currency Rating

Fitch

S&P

May 2008

**Long-Term Debt**

**BB-**

**BB-**

**Short-Term Debt**

**BB-**

**BB-**

**Outlook**

**Stable**

**Stable**



- Benchmarked off of the credit quality of the U.S. Government
- Typically corporate debt cannot be rated higher than a country's "sovereign risk rating"
- Improvement to an investment grade credit rating for Nigeria will inevitably increase pools of investors, reduce borrowing costs and increase access to capital markets abroad





# Emerging Markets Investment

- Wall Street invests approximately \$3 - \$5 trillion in “Emerging Markets” (Non-European//Canadian/Australian/Japanese markets)  
(EM approximately 25-30% of \$14 trillion U.S. global market investments: Financial Times 2010)
- About 85%+ of investments go to the “BRICs” i.e. Brazil, Russia, India and China (others like Mexico, Thailand, South Korea, Taiwan, UAE, etc. are closing gap)
- Wall Street investment in Africa may be 2-3% with the bulk going to South Africa
- The Economic Community of West African States (ECOWAS) which consists of 15 member states constitutes maybe a 1/4 of the African investment



and



- Wall Street looking to increase its “Pioneer or Frontier” investment portfolio
- Nigeria can be the most important country in the ECOWAS that can bring “Pioneer or Frontier” investment to the region
  - The 2010 Power Sector Reform Act designed to break barriers and open doors to private sector investment in power systems in Nigeria
  - Push for continued privatization of state-owned enterprises
  - Growth in the middle class
  - Most populated country in Africa

# COMMON EQUITY

1. Represents ownership and stakeholder investment in a utility
2. Utility common equity balances are forecasted taking into account estimated retained earnings and known equity infusions into the utility by the holding company/parent company or investors
3. The rate of return on equity (ROE) is derived from models and formulas designed to formulate a reasonable return on equity such as the Discounted Cash Flow (DCF) model; the Capital Asset Pricing Model (CAPM) and various Risk Premium models
4. The DCF Model evaluates a company's stock price, dividends to investors and expected growth in dividends to arrive at an ROE estimate
5. The CAPM method takes into account the relationship between investment in government bonds and the additional premium required for investment in the overall stock market to arrive at an ROE estimate
6. The Risk Premium model also examines the relationship between the risk of bonds and the added cost of the risk of equity investment to arrive at a ROE estimate

# Michigan Practice: Asset Valuation

- The Commission Values Utility Assets at their Original Cost for Property, Plant and Equipment
  - Includes all purchases taxes, duties, financing fees
  - Site preparation, transportation charges, installation and assembly, testing, professional and other applicable fees
- Capital Improvements and Additions to property, plant and equipment are added to the asset's original cost basis
- Assets are valued when first devoted to public service
- The Michigan Commission views Historical Cost, Book Cost and Original Cost valuations in a similar manner

# Advantages of Original Cost Valuation

- Based on recorded transactions and verifiable from records, invoices, receipts etc.
- Straightforward to produce and simplifies areas of controversy in rate cases
- Provides valuation stability, eliminates unpredictable fluctuations in an asset's value
- Protects against possible management manipulation of an asset's value (unverifiable value assessment)
- Commission has the authority to adjust asset's original cost if necessary

# Comparison to Other Valuation Approaches

- Fair Market Valuation: Ongoing debate if approach is superior to Historical Cost Valuation
  - Pros – Reflects current market price of an asset; takes into account an adjustment for inflation; provides a market value for assets that have no active market to determine a market price
  - Cons - Models to measure the market value of an asset may be unreliable or speculative, subject to manipulation or difficult and time consuming to produce
- Replacement Cost Valuation
  - Pros – Cost assets at their current replacement value
  - Cons – Eliminates the cost advantage of a fully depreciated plant that is still operable – may be more expensive to ratepayers

# Used and Useful

- If a Michigan utility has an asset on its books that provides utility to ratepayers, if in an active or reserve status, the asset is considered used and useful
- Two scenarios where an asset may not be considered used and useful
  - Designed to a capacity that will never be met
  - Much more expensive than necessary to perform desired function

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# Thank You

## Questions ?