

# Measuring Creditworthiness of Water Utilities

Session 10



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# Learning Objectives

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- Understand the key factors that impact water utility creditworthiness
- Understand how credit ratings for water utilities can facilitate access to finance

# Definition of Creditworthiness

# Defining Creditworthiness

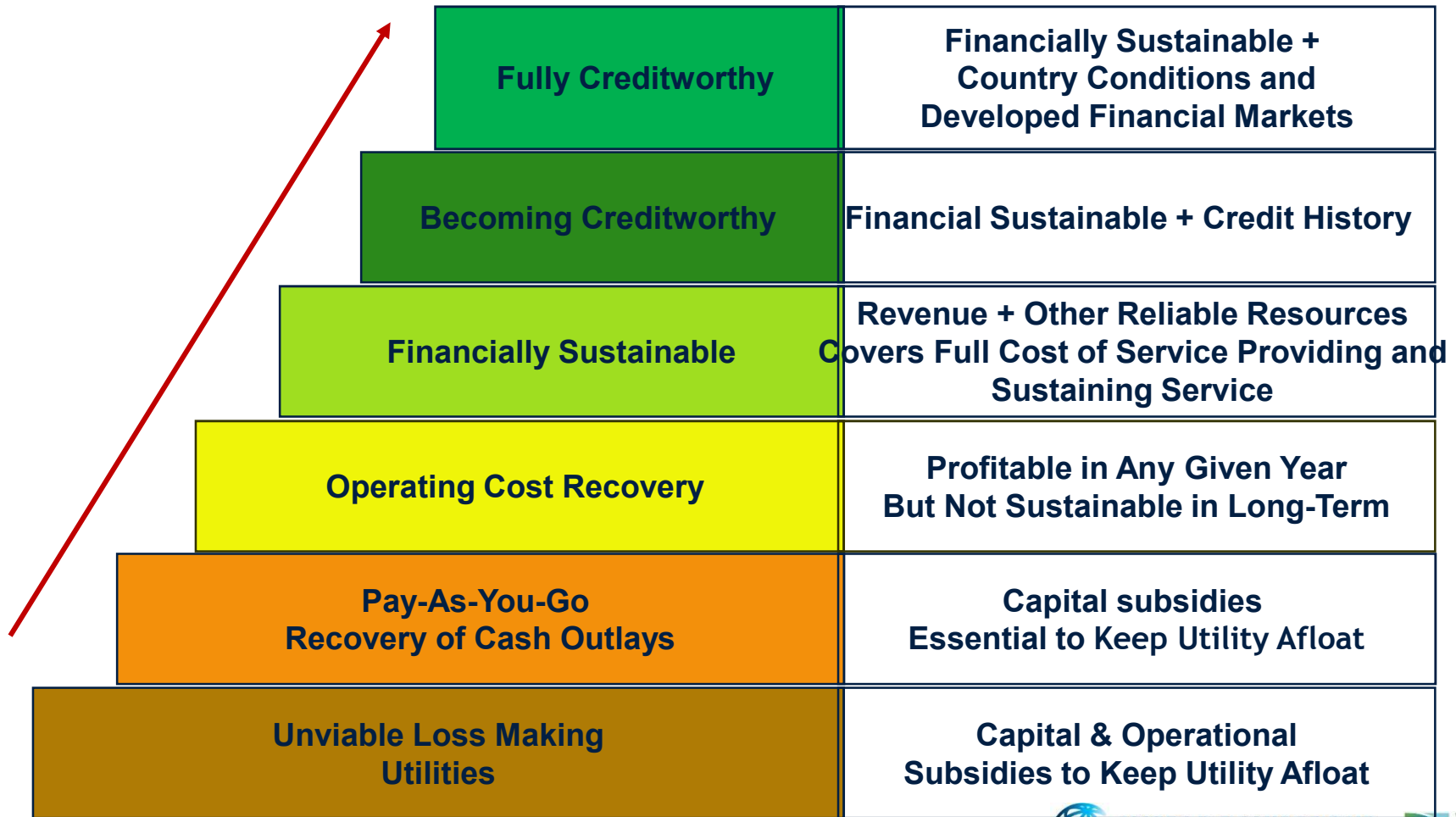
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**What is Creditworthiness?** The assessment of the current and future capacity of the utility to service debt—that is, to pay interest and repay principle on loans when due.

If a utility is creditworthy, it will be able to raise commercial finance.

# Creditworthy Utilities are High in the Ladder of Financial Sustainability

Levels of Financial Sustainability



# Measuring Creditworthiness



# Why and How to Measure Creditworthiness ?

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## Why

Creditworthiness of water utilities and projects is opaque to borrowers and lenders. Objective measures can help creditworthy utilities access finance

Measures of creditworthiness can allow utilities to identify areas for improvement and to exchange good practices.

## How

Assessing the current and future capacity to generate cash flows to cover debt commitments

**Credit Ratings** are a way to measure creditworthiness

# Measuring Creditworthiness

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Measures of creditworthiness are based on financial profile of the utility:

- Capital structure
- Profitability
- Cash flow analysis

# The use of ratios for measuring creditworthiness

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## North Carolina Water and Wastewater Rates Dashboard

# Capital Structure

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# Measuring Creditworthiness: Capital Structure

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**Capital structure:** how the utility finances its operations

- WSS utilities are capital-intensive
- Common to find high leverage ratios compared to other sectors
- Off-balance sheet financing (leases) should be taken into account
- BOT schemes should be taken into account.

# Analyzing the Capital Structure

Should analyze liquidity and solvency: ability to meet short-term and long-term liabilities

## Liquidity

### Current Ratio

= **Current assets/Current liabilities**

- A rough indication of a firm's ability to service its current obligations.
- Should be above 1 (one) for a well managed utility
- Considerations:
  - Must adjust assets and liabilities accordingly to ensure that are only measuring current accounts (e.g., interest payable to government is not expected to be paid in the current year so will not be a cash flow requirement)

### Grant dependency

= **OPEX/Income from grants**

- The proportion of OPEX financed by income from Grants

## Solvency

### Debt Service Coverage Ratio

= **EBITDA/(interest expenses + principal repayments + realized exchange rate losses)**

- Shows capacity of utility to service debt from its operating cash flows
- Considerations:
  - May not be relevant if utility does not have to service debt on a regular basis

### Debt to Equity

= **Book value of debt/Book value of equity**

- Evaluate the level of risk borne by a firm
- Considerations:
  - Both will be affected by how different book value may be from market value

# Profitability

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# Measuring Creditworthiness: Profitability

**Profitability:** ability of a company to use its resources to generate revenues in excess of its expenses

## EBITDA Margin

= **earnings before interest, taxes, depreciation and amortization (EBITDA)/operating revenues**

- Margin left from revenues after covering operating costs
- Considerations:
  - Useful for measuring performance across business units that do not have full balance sheets
  - May be more relevant than debt service coverage ratio for utilities that are not directly responsible for servicing their own debt

## Return on Equity (ROE)

= **net income/total equity**

- Reveals how much profit a company generates with the money shareholders have invested
- Considerations:
  - Not suitable for comparing utilities in different countries. Tax and accounting standards can affect importantly the net income



# Cash Flow

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# Measuring Creditworthiness: Cash Flow Analysis

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Cash flow analysis: does the utility generate enough cash to cover its operating, investing, and financing activities?

- Debt service is served using cash, not earnings!

## Cash flow from operations

= **Cash flow from operations (on cash flow statement)**

- Demonstrates whether utility is generating positive cash flows from operations
- Positive cash flows from operations are essential to a utility's sound financial position

## Cash flow coverage ratio

= **Cash flow from operations (on cash flow statement) / Total Debt**

- Demonstrates the ability of a company to pay its debt from the cash it generates from its operations

# Process Used by Rating Agencies to Assess Creditworthiness of Water Utilities

# Measuring Creditworthiness Using Credit Ratings

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- What are credit ratings?
  - An independent and objective evaluation of water providers creditworthiness to banks, financial institutions, and other lenders
- Why to use credit ratings?
  - Proven to be an accurate predictor of the risk of default
- How do credit ratings help utilities to access private finance?
  - Allow potential lenders to compare different providers with each other and assess their relative creditworthiness
  - Assists investors in pricing risk correctly, helping financial institutions decide whether to lend to the entity and calculate the cost (interest rate spread) for the borrower
  - Can improve the negotiating position of the provider with its lenders, especially with regard to financing costs
  - Allows the rated entity to identify and focus on areas that reduce its creditworthiness and launch actions to address these issues

# Creditworthiness Ranking Systems Used by Rating Agencies

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- Ratings are assigned by credit rating agencies, the largest of which are Standard & Poor's, Moody's and Fitch Ratings.
- They use letter designations such as A, B, C.
- Higher grades are intended to represent a lower probability of default.
- Credit ratings are either:
  - Investment grade
  - Speculative grade: While such obligations will likely have some quality and protective characteristics, these may be outweighed by large uncertainties or major exposures to adverse conditions
- There are long-term credit ratings or short-term credit ratings

# Measures of Credit Ratings

	Moody's	S&P	Fitch	Meaning
Investment Grade	Aaa	AAA	AAA	Prime
	Aa1	AA+	AA+	High Grade
	Aa2	AA	AA	
	Aa3	AA-	AA-	
	A1	A+	A+	Upper Medium Grade
	A2	A	A	
	A3	A-	A-	
	Baa1	BBB+	BBB+	Lower Medium Grade
	Baa2	BBB	BBB	
Baa3	BBB-	BBB-		
Junk	Ba1	BB+	BB+	Non Investment Grade Speculative
	Ba2	BB	BB	
	Ba3	BB-	BB-	
	B1	B+	B+	Highly Speculative
	B2	B	B	
	B3	B-	B-	
	Caa1	CCC+	CCC+	Substantial Risks
	Caa2	CCC	CCC	Extremely Speculative
	Caa3	CCC-	CCC-	In Default w/ Little Prospect for Recovery
	Ca	CC	CC+	
		C	CC	
			CC-	In Default
D	D	DDD		

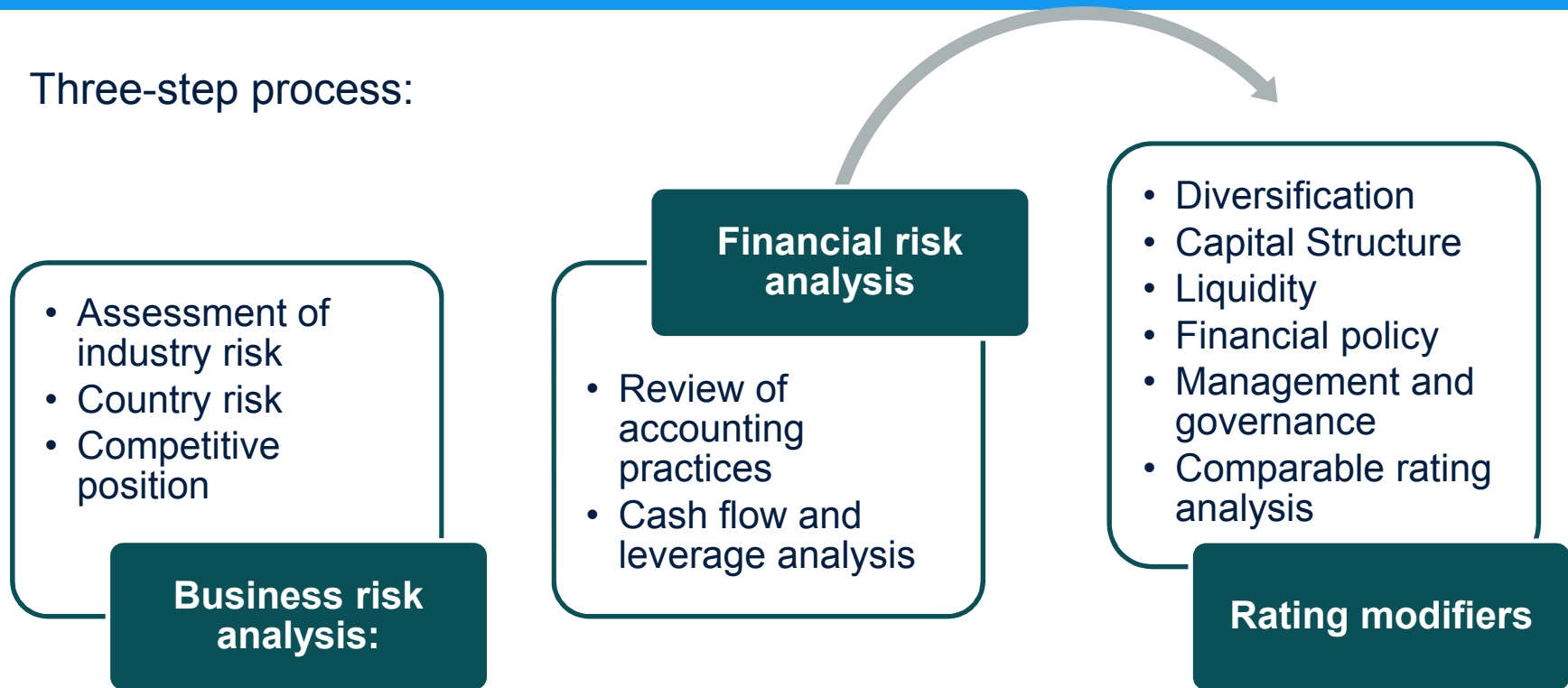
# Credit Ratings for African Utilities

Name	Short Term Rating	Long Term Rating
Athi Water Services Board	A2	BBB+
Nairobi City Water and Sewerage Company	A3	BBB
National Water and Sewerage Corporation	A2	A
Office National de L'eau et de L'assainissement (ONEA)	A2	BBB+
Sénégalaise des Eaux (SDE)	N.A.	N.A.
Société Nationale des Eaux du Sénégal (SONES)	A1	A+
Société Nationale des Exploitation et Distribution des Eaux (SONEDE)	A-1	A

**Source:** WSP “Using Credit Ratings to Improve Water Utility Access to Market Finance in Sub-Saharan Africa”

# Example: Process Used by Standard and Poor's to Rate Utilities

Three-step process:



Consistent with definition of financial sustainability

**Creditworthy in Tested Country Conditions**



# Using Blended Finance to Improve Creditworthiness

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# Example: Utility Projects Accessing Medium-Term Commercial Finance in Kenya

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The IFC is currently appraising two water and sewerage projects, developed with support from WSP and PPIAF, for ten-year domestic currency loans at market interest rates:

- **Malindi Water (BBB-rated)** is seeking to raise US\$4 million to undertake a service coverage expansion project targeting 103,000 residents. The IFC is supporting the project with a concessional loan of US\$2 million.
- **Embu Water (BB-rated)** is seeking to raise US\$3 million to finance a sewer network and treatment works to serve 40,000 people. In addition to project revenues, investment in Embu's water supply financed by external partners will help the utility generate sufficient cash to repay the loan. The rating process helped identify management and operational weaknesses to be addressed as part of the proposed lending. The projects are critical in demonstrating the ability to leverage concessional finance to access commercial debt.

# Exercise

## Answers to Exercise: What is in a Credit Rating Report?

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Use the credit rating report of Ruiru Juja Water to answer the following questions and the summary of the financial statements of AWSB in the last page of the report.

1. Is the utility **investment grade** rated?
2. **Capital Structure.** What is the expected debt to equity ratio for 2012, 2013 and 2014.
3. **Cash flow Analysis.** Is the utility able to pay its debt from the cash it generates from its operations?
4. **Profitability.** What are some reasons that explain the surplus results in 2011?

# Thank you



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