



Credit Analysis Overview

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Financial Risk Mitigation Senior Task Force
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Steve Dreyer Background

- Managing Director at S&P Global Ratings (New York and Washington)
 - Insurance, 1990-2006
 - Utilities & Infrastructure, 2006-2015
 - Investor Communications, 2015-2017
- Director, Federal Insurance Office, U.S. Treasury (2018)
- Analytical Experience:
 - Credit Risk
 - Enterprise Risk Management
 - Management & Governance

“The Anchor”

Country, Economy, Industry, Regulatory Risks

“The Stand-Alone Credit Profile”

Business & Financial Risk, Management & Governance, Diversification, Peer Comparisons


“The Credit Rating”

Add uplift or drag by parent, affiliates, or governmental bodies



“The Anchor”

Country, Economy, Industry, Regulatory Risks

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*Environmental
Analysis*

- Cyclicalities
 - Percent increase/decline in industry revenue/earnings at economic peaks/troughs
- Competitive Risk
 - Barriers to Entry
 - Profit Margin Level and Trends
 - Product Substitution

“The Stand-Alone Credit Profile” (1 of 2)

Business & Financial Risk, Management & Governance, Diversification, Peer Comparisons



Key Metrics

- Business Risk
 - Competitive Advantage.....*Brand Reputation, Service Quality*
 - Scale, Scope & Diversity.....*Geographic Mix, Market Share, Product Mix*
 - Operating Efficiency.....*Cost Structure*
 - Profitability.....*Return on Equity, Return on Revenue, Profit Volatility*

- Financial Risk
 - Cash Flow & Leverage.....*FFO / Debt, Debt / EBITDA, EBITDA / Interest*
 - Liquidity.....*Current Ratio, Free Operating Cash Flow / Debt*

“The Stand-Alone Credit Profile” (2 of 2)

Business & Financial Risk, Management & Governance, Diversification, Peer Comparisons

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Company
Analysis

- Management
 - Strategic Positioning
 - Risk Management
 - Organizational Effectiveness
- Financial Policy
 - Acquisitions, Investments
 - Debt Maturity Profile, Rate Risk
 - Funding Options
- Governance
 - Board effectiveness
 - Ownership
 - Management culture
 - Regulatory, tax, or legal infractions
 - Communication of messages
 - Internal controls
 - Financial reporting and transparency

“The Credit Rating”

Add uplift or drag by parent, affiliates, or governmental bodies



*Analysis of
External
Influences*

- Group Member Relationships: Core, Strategically Important, Non-Strategic
- Group Credit Quality: Higher or Lower than Company?
- Structural Barriers
- Implicit and Explicit Support

Benchmark Levels for Sectors Vary Based on Levels of Industry Volatility



FFO / Debt Ratio		Regulated Utilities <i>(e.g., Philadelphia Electric, Toledo Edison, Virginia Electric Power)</i>	Merchant Power <i>(e.g., NRG, AES, Exelon Generation)</i>	Energy Funds <i>(e.g., Panda Power, LS Power, Arclight Capital, Tenaska)</i>
INDUSTRY VOLATILITY →		VERY LOW	MODERATELY HIGH	HIGH
RISK LEVEL	Minimal	35% and above	50% and above	60% and above
	Modest	23%	35%	45%
	Intermediate	13%	23%	30%
	Significant	9%	13%	20%
	Aggressive	6%	9%	12%
	Highly Leveraged	below 6%	below 9%	below 12%

Source: S&P Global Ratings "Key Credit Factors" (selected sectors)



Relative Importance of Ratios for Sectors Varies Based on Key Credit Drivers

Sector	Risk Drivers
Regulated Utilities	Regulatory Advantage, Economy
Merchant Power	Power Prices, Diversification
Project Developers	Cash Flow Volatility
Utility Co-Operatives	Ability to Set Rates, Economy
Municipal Utilities	Operational Management, Economy
Commodities Trading	Risk Management
Private Equity	Diversification

Source: S&P Global Ratings "Criteria" (selected sectors)