

RISK AND RETURN FOR REGULATED INDUSTRIES

THE **Brattle** GROUP

**BENTE VILLADSEN, MICHAEL J. VILBERT,
DAN HARRIS, A. LAWRENCE KOLBE**




RISK AND RETURN FOR REGULATED INDUSTRIES

A NEW BOOK BY:

Bente Villadsen, Michael J. Vilbert, Dan Harris, and A. Lawrence Kolbe
The Brattle Group, May 2017, Elsevier

Risk and Return for Regulated Industries provides a timely, comprehensive review of how cost of capital risk arises and can be measured, how the special risks regulated industries face affect the fair return, and the challenges that regulated industries are likely to face in the future. The book is not a simple summary of regulated industries or a textbook-style review of utility finance. Instead, it covers the institutional practices, required economic principles, and the practical details today's regulators, regulated companies, regulatory lawyers, and rate-of-return analysts need to determine the appropriate return on capital.





In recent decades, there has been a worldwide shift towards private ownership of transportation and energy infrastructure with public oversight of prices.

Regulated prices that ensure an adequate return on investment are critical to maintaining reliable and efficient development of transportation and energy systems. Regulators also seek to ensure that returns are not excessive and provide only enough to attract capital. Determining the fair rate of return on capital investment has long been a balancing act between the interests of customers and investors. It is increasingly challenging today as these industries confront technological innovation, heightened competition, dramatically shifting commodity market conditions, and evolving regulatory policies.

Drawing on experience from several countries and industries that have faced the challenges now becoming global issues, *Risk and Return for Regulated Industries* provides a timely discussion on the impacts of the changing industrial and regulatory landscape. In addition to establishing the principles necessary to understand the foundations for cost of capital measurement, the book examines all of the commonly used risk-pricing models and their comparative benefits and provides real-world case studies illustrating how various models respond to recent changes in the industry. Based on decades of combined experience advising regulators and regulated companies around the globe, the authors provide a new perspective by addressing the importance of the fair return for the efficient, dynamic evolution of these industries, as well as areas for future analysis.

For more information, contact Bente Villadsen
at +1.617.864.7900 or Bente.Villadsen@brattle.com.

For marketing inquiries, contact Ellen Kennedy
at +1.617.864.7900 or Ellen.Kennedy@brattle.com.

To purchase a copy, please visit:
www.elsevier.com/books/ISBN/9780128125878

TABLE OF CONTENTS

- CHAPTER 1 Motivation: Why a Book Now on Required Rate of Return?
- CHAPTER 2 Legal Foundations and Regulatory Frameworks for a Fair Return
- CHAPTER 3 Financial Asset Pricing Principles
- CHAPTER 4 The Capital Asset Pricing Model and Variations
- CHAPTER 5 Discounted Cash Flow Models
- CHAPTER 6 Multi-Factor and Other Cost of Capital Estimation Models
- CHAPTER 7 Effects of Capital Structure on Cost of Capital
- CHAPTER 8 Approaches to Rate Base Measurement
- CHAPTER 9 Rate of Return Practices in Use
- CHAPTER 10 Asymmetric Risk: Theory and Examples
- CHAPTER 11 Emerging Issues and Implications for Cost of Capital
- CHAPTER 12 Conclusion

ADVANCE PRAISE FOR RISK AND RETURN FOR REGULATED INDUSTRIES

"Risk and Return for Regulated Industries provides comprehensive coverage of the models and methods used for one of the most difficult steps in the determination of government-regulated prices: the estimation of cost of capital. The text is well-grounded in finance theory, but its strength is the focus on practical application of these estimation methods and the international examples from which we all may learn."

– Larry Blank, New Mexico State University, Cost of Capital Practitioner

"Traditional public utility economics seemed to be on its way to becoming a subject for the history of economic thought. Risk and Rate of Return for Regulated Industries demonstrates that, far from disappearing, the issues are increasingly important today as public-private-partnerships blur the lines between regulation and public production. This volume is a comprehensive restatement and updating of the issues of rate base determination and the calculation of the cost of capital, with an emphasis on incorporating issues of risk. It belongs on the shelf for any student of twenty-first century price regulation."

– Ken Boyer, Institute of Public Utilities (IPU) at Michigan State University

THE AUTHORS



BENTE VILLADSEN, Principal

Dr. Villadsen specializes in finance and accounting matters with an emphasis on the energy industry. Her recent work has included the determination of the cost of capital for electric power, electric utilities, pipelines, and water companies in Australia, Canada, the Netherlands, and the U.S. Dr. Villadsen has been deeply involved in credit and capital structure issues, risk management and the prudence hereof, as well the impact of regulatory initiatives such as energy efficiency and de-coupling on credit, cost of capital, and earnings.



MICHAEL J. VILBERT, Principal

Dr. Vilbert specializes in cost of capital, regulatory economics, financial planning, income tax disputes, and valuation. He has advised clients on these matters in various investment and regulatory decisions. His recent work has focused on evaluating the effects of various regulatory policy changes, such as decoupling of a company's cost of capital and asset valuation in arbitration proceedings.



DAN HARRIS, Principal

Mr. Harris has more than fifteen years of experience as an expert in valuation, quantification of damages, and the economics of gas and electricity markets. He has consulted on developing tariffs and access arrangements for gas and electricity networks and has authored reports on the cost of capital for gas, electricity, water distribution, and telecommunications networks.



A. LAWRENCE KOLBE, Principal Emeritus

Dr. Kolbe's expertise focuses on applied financial economics. His projects address risk, return, and regulatory policy for rate-regulated industries; income tax disputes; natural resource tax and royalty disputes; and firm, security, or project valuation questions in a wide variety of settings. Dr. Kolbe is the co-author of three other books and has served as an expert witness in venues in North America, The Hague, London, and Melbourne.

The Brattle Group provides consulting and expert testimony in economics, finance, and regulation to corporations, law firms, and governments around the world. We aim for the highest level of client service and quality in our industry.

» brattle.com



Brattle
THE POWER OF **ECONOMICS**