
UNDERGRADUATE PROGRAM IN ECONOMICS – 1st semester 2020

COURSE: Principles of Corporate Finance for Utilities

PROFESSOR: Edson Daniel Lopes Gonçalves

CONTACT HOURS: 30h

PREREQUISITES (RECOMMENDED): basic knowledge in Financial Mathematics, Investment Analysis and Microeconomics

- [FGV Undergrad. in Economics](#): Investments course
- [FGV Undergrad. in Business Administration](#): Financial Management I course

OFFICE HOURS: Friday, 04:00 pm

OFFICE: Barão de Itambi, 60, room 201, 2nd floor – CERI/FGV

COMPLEMENTAÇÃO DE CARGA HORÁRIA: 2 aulas de 1h40min

SYLLABUS

1. Description

This course focuses on corporate finance as it pertains to regulated utilities – energy, water, transportation, telecommunication and other infrastructure firms. Corporate finance comprises the decisions and operations made by firms; perhaps the most important of these are the investment decisions firms make and the financing of such investments. Capital-intensive, regulated utilities are different from unregulated firms in that they cannot make such decisions with abandon. Rather, many of their decisions must be vetted and approved by utility regulators, considering that they do not operate in competitive markets. Thus, the main goal of this course is to provide an understanding of the economic, financial, and accounting concepts that are most relevant to regulated utilities. The classes will cover four big themes:

Part I – Key concepts of corporate finance, especially those related to regulated utilities;

Part II – Issues of risk, which regulated firms and regulators alike must address, including business, financial and regulatory risks;

Part III – Some fundamental issues that affect regulated utility investment decisions – in particular we will discuss options and derivatives and capital budgeting decisions; and

Part IV – Issues related to the financial operations of regulated utilities, including accounting standards that regulated utilities must use and the accounting rules needed to separate regulated from unregulated activities when a firm performs both.

2. Course Goals

The main goal of the course is to introduce students to the applications of Corporate Finance for regulated firms (Energy, Water, Telecomm etc), providing a wide range of tools that combine knowledge from Finance, Accounting, Law, Public Policy and Economics.

3. Main Learning Goals

At the end of the course it is expected that student understands the use of Modern Finance Theory in setting public tariffs, rates of return for infrastructure investments and other related topics concerning to utilities firms.

4. Relationship with the contemporary debate

Brazil faces a chronic deficit in the provision of infrastructure services and utilities and part of the problem stems from difficulties in financing projects due the high risks involved.

5. Teaching Procedures

The classes will consist of brief theoretical presentations and real case studies.

6. Outline

<u>Class #</u>	<u>Topics to be covered</u>	<u>Textbook chapters</u>
<u>Feb 14</u>	<i>Why Utility Corporate Finance? Regulatory Concepts</i>	<u>GL, 1 and 2</u>
<u>Feb 21</u>	<i>Review of Mathematical and Financial Concepts Financing Regulated Utilities</i>	<u>GL, 3 and 4</u>
<u>Mar 06</u>	<i>Key Concepts of Regulatory Accounting Measures of Financial Performance and Risk</i>	<u>GL, 5 and 6</u>
<u>Mar 13</u>	<i>Measures of Costs and their Application A primer on Setting Regulated Utility prices</i>	<u>GL, 7 and 8</u>
	<i>Comparable Risk Defining and Measuring Risk</i>	<u>GL, 9 and 10</u>

<u>Mar 20</u>		
<u>Mar 27</u>	<i>The Capital Asset Pricing Model Discounted Cash Flow Models to Estimate Return on Equity</i>	<u>GL, 11 and 12</u>
<u>Apr 03</u>	<i>Capital Structure and WACC Estimating the cost of capital in emerging markets</i>	<u>GL, 13 and 14</u>
<u>Apr 17</u>	<i>Utility Capital Budgeting Asset and Business valuation</i>	<u>GL, 17 and 18</u>
<u>Apr 24</u>	<i>Valuing Energy Contracts, Selected Application of Valuation Techniques</i>	<u>GL, 19, GL, 20</u>
<u>May 08</u>	<i>Accounting for utilities</i>	<u>GL, 21, 22, 23,24</u>
<u>May 15</u>	<i>Tariff-making I</i>	<u>GL, 21, 22, 23,24</u>
<u>May 22</u>	<i>Tariff-making II</i>	<u>GL, 21, 22, 23,24</u>
<u>May 29</u>	<i>New business Models/ The Utilities of the future</i>	<u>V, 11</u>
<u>Jun 05</u>	<i>Final Presentation</i>	_____
<u>Jun 19</u>	<i>Final Presentation</i>	_____

7. Evaluation

A group presentation, based on a topic discussed during the course.

8. Textbooks (Required)

- Giacchino & Lesser, “**Principles of Utility Corporate Finance**”, 1 edition, Public Utilities Reports (GL)
- Villadsen, B., Vilbert, M.J., Harris, D. & Kolbe, A.L., “**Risk and Return for Regulated Industries**”, 1 edition, Brattle Group (V)
- Beecher, J.A. & Kihm, S.G., “**Risk Principles for Public Utility Regulators**”, MSU Press, 1 edition
- Morin, “**New Regulatory Finance**”, 1 edition, Public Utilities Reports
- Myers, Kolbe & Tye, “**Regulatory Risk: Economic Principles and Applications to Natural Gas Pipelines and Other Industries (Topics in Regulatory Economics and Policy)**”, 1 edition, Springer

- Alt, “**Energy Utility Rate Setting – A practical guide to the retail rate setting process for regulated electric and natural gas utilities**”, 1 edition, LuLu publishing

9. Textbooks (Additional)

- Berk, DeMarzo & Harford, “**Fundamentals of Corporate Finance**”, 3 edition, Pearson
- Brealey, Myers & Allen, “**Principles of Corporate Finance**”, 9 edition, McGraw-Hill/Irwin
- Laffont & Tirole, “**A Theory of Incentives in Procurement and Regulation**”, 1 edition, MIT Press
- Kahn, “**The Economics of Regulation – Principles and institutions**”, 1 edition, MIT Press
- Varian, “**Intermediate Microeconomics: A modern approach**”, 8 edition, Norton

10. Professor’s short bio

Current Positions:

- ✓ **Senior Researcher** (Risk and Decision Analysis regarding infrastructure projects, Corporate Finance applied to Utilities firms and Valuation) - *FGV Center for Regulation in Infrastructure - CERI*
- ✓ **Professor** (undergrad, MA, MBA, Corporate courses in Finance and Microeconomics) - *EPGE/FGV* (Economics), *EBAPE/FGV* (Business Administration) and *EMAP/FGV* (Applied Math).

Past Positions:

- ✓ **Associate Principal** – *Accenture Management Consulting* (Risk Management, Finance and Strategy)
- ✓ **Professor** (undergrad – Law & Economics, Corporate Governance and Financial Math) – *FGV Direito Rio* (Law School)
- ✓ **Research Manager** – *RiskControl/BBM Bank* (Risk Management and Quantitative Finance)
- ✓ **Consultant** – *Deloitte* (Corporate Finance/ Assurance)

Education:

- ✓ **Economics (Phd & MA)** – Getulio Vargas Foundation – FGV (EPGE)
- ✓ **Mechanical Engineering (undergrad)**– University of Campinas – UNICAMP

10. Lattes CV link (portuguese)

<http://buscatextual.cnpq.br/buscatextual/visualizacv.do?id=K4736613Z9>