

Project Economics And Decision Analysis

Volume 1

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Book Review Index - 2003

Every 3rd issue is a quarterly cumulation.

Unconventional Hydrocarbon Resources - Reza Barati 2020-11-11

A comprehensive textbook presenting techniques for the analysis and characterization of shale plays Significant reserves of hydrocarbons cannot be extracted using conventional methods. Improvements in techniques such as horizontal drilling and hydraulic fracturing have increased access to unconventional hydrocarbon resources, ushering in the “shale boom” and disrupting the energy sector. *Unconventional Hydrocarbon Resources: Techniques for Reservoir Engineering Analysis* covers the geochemistry, petrophysics, geomechanics, and economics of unconventional shale oil plays. The text uses a step-by-step approach to demonstrate industry-standard workflows for calculating resource volume and optimizing the extraction process. Volume highlights include: Methods for rock and fluid characterization of unconventional shale plays A workflow for analyzing wells with stimulated reservoir volume regions An unconventional approach to understanding of fluid flow through porous media A comprehensive summary of discoveries of massive shale resources worldwide Data from Eagle Ford, Woodford, Wolfcamp, and The Bakken shale plays Examples, homework assignments, projects, and access to supplementary online resources Hands-on teaching materials for use in petroleum engineering software applications The American Geophysical Union promotes discovery

in Earth and space science for the benefit of humanity. Its publications disseminate scientific knowledge and provide resources for researchers, students, and professionals.

Drawdown - Paul Hawken 2017-04-18

• New York Times bestseller • The 100 most substantive solutions to reverse global warming, based on meticulous research by leading scientists and policymakers around the world “At this point in time, the Drawdown book is exactly what is needed; a credible, conservative solution-by-solution narrative that we can do it. Reading it is an effective inoculation against the widespread perception of doom that humanity cannot and will not solve the climate crisis. Reported by-effects include increased determination and a sense of grounded hope.” —Per Espen Stoknes, Author, *What We Think About When We Try Not To Think About Global Warming* “There’s been no real way for ordinary people to get an understanding of what they can do and what impact it can have. There remains no single, comprehensive, reliable compendium of carbon-reduction solutions across sectors. At least until now. . . . The public is hungry for this kind of practical wisdom.” —David Roberts, *Vox* “This is the ideal environmental sciences textbook—only it is too interesting and inspiring to be called a textbook.” —Peter Kareiva, Director of the Institute of the Environment and Sustainability, UCLA In the face of widespread fear and apathy, an international coalition of researchers, professionals, and scientists have come together to offer a set of realistic and bold solutions to climate change. One hundred

techniques and practices are described here—some are well known; some you may have never heard of. They range from clean energy to educating girls in lower-income countries to land use practices that pull carbon out of the air. The solutions exist, are economically viable, and communities throughout the world are currently enacting them with skill and determination. If deployed collectively on a global scale over the next thirty years, they represent a credible path forward, not just to slow the earth's warming but to reach drawdown, that point in time when greenhouse gases in the atmosphere peak and begin to decline. These measures promise cascading benefits to human health, security, prosperity, and well-being—giving us every reason to see this planetary crisis as an opportunity to create a just and livable world.

Project Valuation and Decision Making under Risk and Uncertainty applying Decision Tree Analysis and Monte Carlo Simulation - Donald Dibra 2015-04-28

This work presents the application of the Monte Carlo Simulation method and the Decision Tree Analysis approach when dealing with the economic valuation of projects which are subjected to risks and uncertainties. The Net Present Value of a project is usually used as an investment decision parameter. Using deterministic models to calculate a project's Net Present Value neglects the risky and uncertain nature of real life projects and consequently leads to useless valuation results. Realistic valuation models need to use probability density distributions for the input parameters and certain probabilities for the occurrence of specific events during the life time of a project in combination with the Monte Carlo Simulation method and the Decision Tree Analysis approach. After a short introduction a brief explanation of the traditional project valuation methods is given. The main focus of this work lies in using the Net Present Value method as a basic valuation tool in conjunction with the Monte Carlo Simulation technique and the Decision Tree Analysis approach to form a comprehensive method for project valuation under risk and uncertainty. The extensive project valuation methodology introduced is applied on two fictional projects, one from the pharmaceutical sector and one from the oil and

gas exploration and production industry. Both industries deal with high risks, high uncertainties and high costs, but also high rewards. The example from the pharmaceutical industry illustrates very well how the application of the Monte Carlo Simulation and Decision Tree Analysis method, results in a well-diversified portfolio of new drugs with the highest reward at minimum possible risk. Applying the presented probabilistic project valuation approach on the oil exploration and production project shows how to reduce the risk of losing big.

Bayesian Data Analysis, Third Edition - Andrew Gelman 2013-11-01

Now in its third edition, this classic book is widely considered the leading text on Bayesian methods, lauded for its accessible, practical approach to analyzing data and solving research problems. Bayesian Data Analysis, Third Edition continues to take an applied approach to analysis using up-to-date Bayesian methods. The authors—all leaders in the statistics community—introduce basic concepts from a data-analytic perspective before presenting advanced methods. Throughout the text, numerous worked examples drawn from real applications and research emphasize the use of Bayesian inference in practice. New to the Third Edition Four new chapters on nonparametric modeling Coverage of weakly informative priors and boundary-avoiding priors Updated discussion of cross-validation and predictive information criteria Improved convergence monitoring and effective sample size calculations for iterative simulation Presentations of Hamiltonian Monte Carlo, variational Bayes, and expectation propagation New and revised software code The book can be used in three different ways. For undergraduate students, it introduces Bayesian inference starting from first principles. For graduate students, the text presents effective current approaches to Bayesian modeling and computation in statistics and related fields. For researchers, it provides an assortment of Bayesian methods in applied statistics. Additional materials, including data sets used in the examples, solutions to selected exercises, and software instructions, are available on the book's web page.

The Fourth Industrial Revolution - Klaus Schwab
2017-01-03

World-renowned economist Klaus Schwab, Founder and Executive Chairman of the World Economic Forum, explains that we have an opportunity to shape the fourth industrial revolution, which will fundamentally alter how we live and work. Schwab argues that this revolution is different in scale, scope and complexity from any that have come before. Characterized by a range of new technologies that are fusing the physical, digital and biological worlds, the developments are affecting all disciplines, economies, industries and governments, and even challenging ideas about what it means to be human. Artificial intelligence is already all around us, from supercomputers, drones and virtual assistants to 3D printing, DNA sequencing, smart thermostats, wearable sensors and microchips smaller than a grain of sand. But this is just the beginning: nanomaterials 200 times stronger than steel and a million times thinner than a strand of hair and the first transplant of a 3D printed liver are already in development. Imagine "smart factories" in which global systems of manufacturing are coordinated virtually, or implantable mobile phones made of biosynthetic materials. The fourth industrial revolution, says Schwab, is more significant, and its ramifications more profound, than in any prior period of human history. He outlines the key technologies driving this revolution and discusses the major impacts expected on government, business, civil society and individuals. Schwab also offers bold ideas on how to harness these changes and shape a better future—one in which technology empowers people rather than replaces them; progress serves society rather than disrupts it; and in which innovators respect moral and ethical boundaries rather than cross them. We all have the opportunity to contribute to developing new frameworks that advance progress.

Tips & Tricks for Excel-Based Financial Modeling, Volume I - M.A. Mian 2017-07-31

The purpose of this work is to show some advanced concepts related to Excel based financial modelling. Microsoft Excel™ is a very powerful tool and most of the time we do not utilize its full potential. Of course, any advanced

concepts require the basic knowledge which most of us have and then build on it. It is only by hands-on experimentation that one learns the art of constructing an efficient worksheet. The two volumes of this book cover dynamic charting, macros, goal seek, solver, the routine Excel functions commonly used, the lesser known Excel functions, the Excel's financial functions and so on. The introduction of macros in these books is not exhaustive but the purpose of what is presented is to show you the power of Excel and how it can be utilized to automate most repetitive calculations at a click of a button. For those who use Excel on a daily basis in financial modeling and project/investment evaluations, this book is a must.

Climate Risk Informed Decision Analysis (CRIDA) - Mendoza, Guillermo 2018-12-31

Tough Call - Matt Popovits 2016-09-07

Life is full of tough calls and daunting decisions. The question isn't if you'll face a big decision in the future, but how you'll face the tough call that's guaranteed to come your way. Think about it. There are wedding proposals to ponder, college applications to submit, career moves to make, homes to sell, and confrontations to consider. And, knowing how poorly things could go, we sometimes find ourselves facing these decisions with a deep fear of future regret. The pressure is on. Or is it? Short and straightforward, yet full of practical insight and spiritual truths, *Tough Call*, will help you see that the Christian faith offers a mindset to confidently and joyfully make your next big decision. More importantly you'll see that you can face life with your fears recognized, your peace maximized, and your hope anchored in something greater than your ability to "get it right." Readers familiar with authors like Acuff, Chan, and Tchividjian will resonate with Matt Popovits's witty, practical, and gospel-centered take on complicated topics. *Tough Call* is an enjoyable and essential read for any and all facing a major decision.

Electre and Decision Support - Martin Gerard Rogers 2013-03-14

ELECTRE and Decision Support focuses on the areas of engineering and infrastructure investment. It begins with some general comments about the different decision

components within the project planning process - the definition of objectives, the identification of alternative courses of action, the establishing of criteria, the evaluation of alternatives and the final recommendation. The authors highlight the ability of Multicriteria Decision Aid to reconcile the economic, technical and environmental dimensions of the projects for its planners. They emphasize the complexity of this process, illustrating the importance of identifying the stakeholders within it, as they greatly influence the definition of the decision criteria. A brief case study illustrates these different aspects. Following a comparison of Cost Benefit Analysis and Multicriteria Decision Aid, the introductory chapter sets out the structure of the book, with four subsequent chapters devoted to the methodology of ELECTRE and three outlining case studies involving different versions of ELECTRE. The chapters concentrating on the ELECTRE methodology first give an overview of the main MCDA methods before presenting the ELECTRE method in detail. Each chapter answers the following questions: (1) In what context should the ELECTRE methods be chosen? (2) Which version of the methods is most appropriate to apply to a given problem? Another chapter deals with a critical and delicate problem within MCDA - how to adequately assess the role played by each criterion in a given decision problem, and how this translates into an appropriate weighting for it. Each one covers a different civil engineering discipline and each uses a different version of ELECTRE. The final chapter on methodology presents some accessories which, when used with ELECTRE, can greatly enhance its usefulness in practice. This book is outstanding in many respects. I am convinced that the simple, clear and concise style of the authors will make this book accessible to very many readers. No important aspect of the subject is neglected, and the concise nature of this book does not hinder its originality. Last but not least, the manner in which the case studies are described allows the authors not only to demonstrate the validity of the approach and procedures presented, but also to help the reader understand how to apply them in an effective manner. Taken from the Foreword by Bernard Roy, University Paris-Dauphine

Petroleum Engineering Handbook for the Practicing Engineer - M. A. Mian 1992

This first of two volumes provides a comprehensive overview of petroleum engineering. Created with the purpose of answering daily questions faced by the practicing petroleum engineer, it is suitable for field and office use.

The Economics of Artificial Intelligence - Ajay Agrawal 2019-05-22

Advances in artificial intelligence (AI) highlight the potential of this technology to affect productivity, growth, inequality, market power, innovation, and employment. This volume seeks to set the agenda for economic research on the impact of AI. It covers four broad themes: AI as a general purpose technology; the relationships between AI, growth, jobs, and inequality; regulatory responses to changes brought on by AI; and the effects of AI on the way economic research is conducted. It explores the economic influence of machine learning, the branch of computational statistics that has driven much of the recent excitement around AI, as well as the economic impact of robotics and automation and the potential economic consequences of a still-hypothetical artificial general intelligence. The volume provides frameworks for understanding the economic impact of AI and identifies a number of open research questions.

Contributors: Daron Acemoglu, Massachusetts Institute of Technology Philippe Aghion, Collège de France Ajay Agrawal, University of Toronto Susan Athey, Stanford University James Bessen, Boston University School of Law Erik Brynjolfsson, MIT Sloan School of Management Colin F. Camerer, California Institute of Technology Judith Chevalier, Yale School of Management Iain M. Cockburn, Boston University Tyler Cowen, George Mason University Jason Furman, Harvard Kennedy School Patrick Francois, University of British Columbia Alberto Galasso, University of Toronto Joshua Gans, University of Toronto Avi Goldfarb, University of Toronto Austan Goolsbee, University of Chicago Booth School of Business Rebecca Henderson, Harvard Business School Ginger Zhe Jin, University of Maryland Benjamin F. Jones, Northwestern University Charles I. Jones, Stanford University Daniel Kahneman, Princeton University Anton Korinek, Johns

Hopkins University Mara Lederman, University of Toronto Hong Luo, Harvard Business School John McHale, National University of Ireland Paul R. Milgrom, Stanford University Matthew Mitchell, University of Toronto Alexander Oettl, Georgia Institute of Technology Andrea Prat, Columbia Business School Manav Raj, New York University Pascual Restrepo, Boston University Daniel Rock, MIT Sloan School of Management Jeffrey D. Sachs, Columbia University Robert Seamans, New York University Scott Stern, MIT Sloan School of Management Betsey Stevenson, University of Michigan Joseph E. Stiglitz, Columbia University Chad Syverson, University of Chicago Booth School of Business Matt Taddy, University of Chicago Booth School of Business Steven Tadelis, University of California, Berkeley Manuel Trajtenberg, Tel Aviv University Daniel Treffer, University of Toronto Catherine Tucker, MIT Sloan School of Management Hal Varian, University of California, Berkeley

Economics in One Lesson - Henry Hazlitt
2010-08-11

With over a million copies sold, *Economics in One Lesson* is an essential guide to the basics of economic theory. A fundamental influence on modern libertarianism, Hazlitt defends capitalism and the free market from economic myths that persist to this day. Considered among the leading economic thinkers of the "Austrian School," which includes Carl Menger, Ludwig von Mises, Friedrich (F.A.) Hayek, and others, Henry Hazlitt (1894-1993), was a libertarian philosopher, an economist, and a journalist. He was the founding vice-president of the Foundation for Economic Education and an early editor of *The Freeman* magazine, an influential libertarian publication. Hazlitt wrote *Economics in One Lesson*, his seminal work, in 1946. Concise and instructive, it is also deceptively prescient and far-reaching in its efforts to dissemble economic fallacies that are so prevalent they have almost become a new orthodoxy. Economic commentators across the political spectrum have credited Hazlitt with foreseeing the collapse of the global economy which occurred more than 50 years after the initial publication of *Economics in One Lesson*. Hazlitt's focus on non-governmental solutions, strong — and strongly reasoned — anti-deficit position, and general emphasis on free markets,

economic liberty of individuals, and the dangers of government intervention make *Economics in One Lesson* every bit as relevant and valuable today as it has been since publication.

Decision Support Systems - Daniel J. Power 2002
For MIS specialists and nonspecialists alike, a comprehensive, readable, understandable guide to the concepts and applications of decision support systems.

Cost-Benefit Analysis for Development - Asian Development Bank 2013-01-01

The Asian Development Bank (ADB) has been continuously undertaking measures to enhance the effectiveness of its operations. To improve projects both at the preparation and implementation stages, ADB issued the *Guidelines for Economic Analysis of Projects* in 1997 as a means to enhancing project quality at entry. The conduct of proper economic analysis helps ensure the efficient use of development funds and public resources and thereby increase aid effectiveness. This practical guide is a supplement to the *Guidelines for the Economic Analysis of Projects*. It provides an overview of recent methodological developments in cost-benefit analysis as well as suggested improvements in the economic analysis of projects in selected sectors through case studies. These case studies illustrate the application of suggested methodologies, taking into account sector-specific needs, as well as difficulties faced by practitioners in terms of data and time constraints during project processing. It also aims to contribute to ADB's capacity building initiatives as this will be the main reference material for conduct of economic analysis.

Scientific and Technical Aerospace Reports - 1986

Formulas and Calculations for Petroleum Engineering - Cenk Temizel 2019-08-15

Formulas and Calculations for Petroleum Engineering unlocks the capability for any petroleum engineering individual, experienced or not, to solve problems and locate quick answers, eliminating non-productive time spent searching for that right calculation. Enhanced with lab data experiments, practice examples, and a complimentary online software toolbox, the book presents the most convenient and

practical reference for all oil and gas phases of a given project. Covering the full spectrum, this reference gives single-point reference to all critical modules, including drilling, production, reservoir engineering, well testing, well logging, enhanced oil recovery, well completion, fracturing, fluid flow, and even petroleum economics. Presents single-point access to all petroleum engineering equations, including calculation of modules covering drilling, completion and fracturing. Helps readers understand petroleum economics by including formulas on depreciation rate, cashflow analysis, and the optimum number of development wells.

Petroleum Fiscal Systems and Contracts - Muhammed Mazeel 2010-06

The petroleum fiscal system for a country is essentially the taxation structure, including royalty payments, that has been established by legislation. More broadly, the fiscal system includes all aspects of the contractual and taxation framework that governs the relationship between the host government and an international oil company. Worldwide, there are many different fiscal systems with different taxation and contractual terms. These vary from country to country and some countries use more than one system. Countries, for example, may offer concessionary system arrangements or service and production sharing agreements. Whichever system prevails, the issue for an oil company is how it can recover costs expended and how will the profit be divided. This depends upon tax regulations and the principles of the economics of the life of a field. The focus of this book is on the mechanics of the various kinds of fiscal systems and the factors that drive exploration and development economics. The emphasis is on practical aspects of petroleum taxation and industry/government relationships. There is also fertile ground for considering the philosophy of petroleum taxation which has changed the industry. Legal and operational aspects of contract/fiscal terms are also examined to provide a foundation in the dynamics of international negotiations. Both industry and government viewpoints are addressed in this book since a complete grasp of the subject requires an understanding of the aims and concerns of both sides. There are few things more discouraging for a government's

national oil company than an unsuccessful licensing round. Yet prolonged, inconclusive negotiations can be equally frustrating for oil companies. This book has been written for those interested in petroleum taxation and international negotiations, and the way to carry out successful exploration and development projects. Much of the subject has evolved years ago whilst some aspects of taxation are timeless.

Exam
Fiscal Systems for Hydrocarbons - Silvana Tordo 2007-01-01

Although host governments and investors may share one common objective - the desire for projects to generate high levels of revenue - their other goals are not entirely aligned. Host governments aim to maximize rent for their country over time, while achieving other development and socioeconomic objectives. Investors aim to ensure that the return on investment is consistent with the risk associated with the project, and with their corporations' strategic objectives. To reconcile these often conflicting objectives, more and more countries rely on transparent institutional arrangements and flexible, neutral fiscal regimes. This paper examines the key elements of the legal and fiscal frameworks utilized in the petroleum sector and aims to outline desirable features that should be considered in the design of fiscal policy with the objective of optimizing the host government's benefits, taking into account the effect this would have on the private sector's investment.

Engineering Economic Analysis - Donald G. Newnan 2018-02-05

Praised for its accessible tone and extensive problem sets, this trusted text familiarizes students with the universal principles of engineering economics. This essential introduction features a wealth of specific Canadian examples and has been fully updated with new coverage of inflation and environmental stewardship as well as a new chapter on project management.

Software Engineering Economics - Barry W. Boehm 1981

Software Engineering Economics is an invaluable guide to determining software costs, applying the fundamental concepts of microeconomics to software engineering, and utilizing economic analysis in software

engineering decision making.

Petroleum Economics and Risk Analysis -

Mark Cook 2021-01-29

Petroleum Economics and Risk Analysis: A Practical Guide to E&P Investment Decision-Making, Volume 69, is a practical guide to the economic evaluation, risk evaluation and decision analysis of oil and gas projects through all stages of the asset lifecycle, from exploration to late life opportunities. This book will help readers understand and make decisions with regard to petroleum investment, portfolio analysis, discounting, profitability indicators, decision tree analysis, reserves accounting, exploration and production (E&P) project evaluation, and E&P asset evaluation. Includes case studies and full color illustrations for practical application Arranged to reflect lifecycle structure, from exploration through to decommissioning Demonstrates industry-standard decision-making techniques as applied to petroleum investments in the oil and gas industry

Tips & Tricks for Excel-Based Financial Modeling, Volume II - M.A. Mian 2017-07-31

The purpose of this work is to show some advanced concepts related to Excel based financial modelling. Microsoft Excel™ is a very powerful tool and most of the time we do not utilize its full potential. Of course, any advanced concepts require the basic knowledge which most of us have and then build on it. It is only by hands-on experimentation that one learns the art of constructing an efficient worksheet. The two volumes of this book cover dynamic charting, macros, goal seek, solver, the routine Excel functions commonly used, the lesser known Excel functions, the Excel's financial functions and so on. The introduction of macros in these books is not exhaustive but the purpose of what is presented is to show you the power of Excel and how it can be utilized to automate most repetitive calculations at a click of a button. For those who use Excel on a daily basis in financial modeling and project/investment evaluations, this book is a must.

Guidelines for the Economic Analysis of Projects -

Asian Development Bank 2017-03-01
Project economic analysis is a tool used by the Asian Development Bank (ADB) to ensure that ADB operations comply with its Charter. The

guidelines in this publication are a revised version of the 1997 edition. The revision responds to the changing development context and ADB operational priorities, and aims to address the recommendations of the ADB Quality-at-Entry Assessments for more methodological work on project economic analysis. The revised guidelines provide general principles for the conduct of project economic analysis, and should be read together with handbooks, technical reports, and other reference materials published by ADB dealing with sector-specific project economic analysis in detail.

The Undoing Project: A Friendship That Changed Our Minds -

Michael Lewis 2016-12-06

“Brilliant. . . . Lewis has given us a spectacular account of two great men who faced up to uncertainty and the limits of human reason.”
—William Easterly, Wall Street Journal Forty years ago, Israeli psychologists Daniel Kahneman and Amos Tversky wrote a series of breathtakingly original papers that invented the field of behavioral economics. One of the greatest partnerships in the history of science, Kahneman and Tversky's extraordinary friendship incited a revolution in Big Data studies, advanced evidence-based medicine, led to a new approach to government regulation, and made much of Michael Lewis's own work possible. In *The Undoing Project*, Lewis shows how their Nobel Prize-winning theory of the mind altered our perception of reality.

Narrative Economics - Robert J. Shiller 2020-09-01

From Nobel Prize-winning economist and New York Times bestselling author Robert Shiller, a groundbreaking account of how stories help drive economic events—and why financial panics can spread like epidemic viruses Stories people tell—about financial confidence or panic, housing booms, or Bitcoin—can go viral and powerfully affect economies, but such narratives have traditionally been ignored in economics and finance because they seem anecdotal and unscientific. In this groundbreaking book, Robert Shiller explains why we ignore these stories at our peril—and how we can begin to take them seriously. Using a rich array of examples and data, Shiller argues that studying

popular stories that influence individual and collective economic behavior—what he calls "narrative economics"—may vastly improve our ability to predict, prepare for, and lessen the damage of financial crises and other major economic events. The result is nothing less than a new way to think about the economy, economic change, and economics. In a new preface, Shiller reflects on some of the challenges facing narrative economics, discusses the connection between disease epidemics and economic epidemics, and suggests why epidemiology may hold lessons for fighting economic contagions.

Deterministic Models - Mohammed A. Mian 2002

Portfolio Decision Analysis - Ahti Salo
2011-08-12

Portfolio Decision Analysis: Improved Methods for Resource Allocation provides an extensive, up-to-date coverage of decision analytic methods which help firms and public organizations allocate resources to 'lumpy' investment opportunities while explicitly recognizing relevant financial and non-financial evaluation criteria and the presence of alternative investment opportunities. In particular, it discusses the evolution of these methods, presents new methodological advances and illustrates their use across several application domains. The book offers a many-faceted treatment of portfolio decision analysis (PDA). Among other things, it (i) synthesizes the state-of-play in PDA, (ii) describes novel methodologies, (iii) fosters the deployment of these methodologies, and (iv) contributes to the strengthening of research on PDA. Portfolio problems are widely regarded as the single most important application context of decision analysis, and, with its extensive and unique coverage of these problems, this book is a much-needed addition to the literature. The book also presents innovative treatments of new methodological approaches and their uses in applications. The intended audience consists of practitioners and researchers who wish to gain a good understanding of portfolio decision analysis and insights into how PDA methods can be leveraged in different application contexts. The book can also be employed in courses at the post-graduate level.

Solutions Manual to Accompany Engineering

Economics for Capital Investment Analysis -
Tung Au 1983

Engineering Economics: Decisions and Solutions from Eurasian Perspective -
Svetlana Igorevna Ashmarina 2020-07-17

This book presents the outcomes of the annual "Engineering Economics Week - 2020," organized by the Russian Union of Industrialists and Entrepreneurs, the Institute of Management and the Institute of Market Problems of the Russian Academy of Sciences (RAS), the South-Russian State Polytechnic University and Samara State University of Economics, and held in online format in May 2020. Focusing on the following topics: - the globalized economy and Russian industrial enterprises: development specifics and international co-operation; - state support for the real sector of the economy; - decisions in production and project management in the context of the digital economy; - big data and big challenges in production networks and systems ; and - economic and social aspects of the innovation management: decision-making and control this book will appeal to scientists, teachers and students (bachelor's, master's and postgraduate) at higher education institutions, economists, specialists at research centers, managers of industrial enterprises, business professionals, and those at media centers, and development fund and consulting organizations.

Flexibility and Real Estate Valuation under Uncertainty - David Geltner 2018-02-19

Provides a revolutionary conceptual framework and practical tools to quantify uncertainty and recognize the value of flexibility in real estate development This book takes a practical "engineering" approach to the valuation of options and flexibility in real estate. It presents simple simulation models built in universal spreadsheet software such as Microsoft Excel®. These realistically reflect the varying and erratic sources of uncertainty and price dynamics that uniquely characterize real estate. The text covers new analytic procedures that are valuable for existing properties and enable a new, more profitable perspective on the planning, design, operation, and evaluation of large-scale, multi-phase development projects. The book thereby aims to significantly improve valuation and investment decision making. Flexibility and Real

Estate Valuation under Uncertainty: A Practical Guide for Developers is presented at 3 levels. First, it introduces and explains the concepts underlying the approach at a basic level accessible to non-technical and non-specialized readers. Its introductory and concluding chapters present the important "big picture" implications of the analysis for economics and valuation and for project design and investment decision making. At a second level, the book presents a framework, a roadmap for the prospective analyst. It describes the practical tools in detail, taking care to go through the elements of the approach step-by-step for clarity and easy reference. The third level includes more technical details and specific models. An Appendix discusses the technical details of real estate price dynamics. Associated web pages provide electronic spreadsheet templates for the models used as examples in the book. Some features of the book include:

- Concepts and tools that are simple and accessible to a broad audience of practitioners;
- An approach relevant for all development projects;
- Complementarity with the author's Commercial Real Estate Analysis & Investments—the most-cited real estate investments textbook on the market.

Flexibility and Real Estate Valuation under Uncertainty: A Practical Guide for Developers is for everyone studying or concerned with the implementation of large-scale or multi-phase real estate development projects, as well as property investment and valuation more generally.

A Study of Business Decisions Under Uncertainty - Andreas Stark 2010-07

This dissertation will discuss the uncertainty encountered in the daily operations of businesses. The concepts will be developed by first giving an overview of probability and statistics as used in our everyday activities, such as the basic principles of probability, univariate and multivariate statistics, data clustering and mapping, as well as time sequence and spectral analysis. The examples used will be from the oil and gas exploration industry because the risks taken in this industry are normally quite large and are ideal for showing the application of the various techniques for minimizing risk. Subsequently, the discussion will deal with basic risk analysis, spatial and time variations of risk,

geotechnical risk analysis, risk aversion and how it is affected by personal biases, and how to use portfolios to hedge risk together with the application of real options. Next, fractal analysis and its application to economics and risk analysis will be examined, followed by some examples showing the change in the Value at Risk under Fractal Brownian Motions. Finally, a neural network application is shown whereby some of these risks and risk factors will be combined to forecast the best possible outcome given a certain knowledge base. The chapters will discuss: Basic probability techniques and uncertainty principles Analysis and diversification for exploration projects The value and risk of information in the decision process Simulation techniques and modeling of uncertainty Project valuation and project risk return Modeling risk propensity or preference analysis of exploration projects Application of fractals to risk analysis Simultaneous prediction of strategic risk and decision attributes using multivariate statistics and neural networks"

Economic Analysis of Investment Operations - Pedro Belli 2001-01-01

This books presents general principles and methodologies of quantitative risk analysis; provides theory and practice of how to evaluate health, transport and education projects and describes how to assess the environmental impact of projects. It looks at how the tools of cost benefit analysis can be applied from the point of view of the private sector, public sector, bankers, and the country as a whole. It encourages analysts to answer a number of key questions that are likely to increase success rather than simply describing techniques. This book as aimed at all concerned with resource allocation and is presented in an accessible fashion. It is required reading at World bank Institute courses.

Data Analysis for Business, Economics, and Policy - Gábor Békés 2021-04-30

This textbook provides future data analysts with the tools, methods, and skills needed to answer data-focused, real-life questions; to carry out data analysis; and to visualize and interpret results to support better decisions in business, economics, and public policy. Data wrangling and exploration, regression analysis, machine learning, and causal analysis are

comprehensively covered, as well as when, why, and how the methods work, and how they relate to each other. As the most effective way to communicate data analysis, running case studies play a central role in this textbook. Each case starts with an industry-relevant question and answers it by using real-world data and applying the tools and methods covered in the textbook. Learning is then consolidated by 360 practice questions and 120 data exercises. Extensive online resources, including raw and cleaned data and codes for all analysis in Stata, R, and Python, can be found at www.gabors-data-analysis.com.

The Economics of Project Analysis - William Augustus Ward 1991-01-01

'The Economics of Project Analysis: A Practitioner's Guide' is written for project practitioners, for instructors in agricultural project economic analysis, and for students of that subject. This guide extends and complements the discussion of project and policy economics contained in the second edition of 'Economic Analysis of Agricultural Projects', by J. Price Gittinger--referred to throughout this volume as Gittinger (1982).

ISBN10:0-8213-1751-2

ISBN13:978-0-8213-1751-8

product guide SUMMER 2008 -

Fundamentals of Engineering Economics and Decision Analysis - David Whitman 2012-04-27

The authors cover two general topics: basic engineering economics and risk analysis in this text. Within the topic of engineering economics are discussions on the time value of money and interest relationships. These interest relationships are used to define certain project criteria that are used by engineers and project managers to select the best economic choice among several alternatives. Projects examined will include both income- and service-producing investments. The effects of escalation, inflation, and taxes on the economic analysis of alternatives are discussed. Risk analysis incorporates the concepts of probability and statistics in the evaluation of alternatives. This allows management to determine the probability of success or failure of the project. Two types of sensitivity analyses are presented. The first is

referred to as the range approach while the second uses probabilistic concepts to determine a measure of the risk involved. The authors have designed the text to assist individuals to prepare to successfully complete the economics portions of the Fundamentals of Engineering Exam. Table of Contents: Introduction / Interest and the Time Value of Money / Project Evaluation Methods / Service Producing Investments / Income Producing Investments / Determination of Project Cash Flow / Financial Leverage / Basic Statistics and Probability / Sensitivity Analysis

Prospect Theory - Peter P. Wakker 2010-07-22
Prospect Theory: For Risk and Ambiguity, provides a comprehensive and accessible textbook treatment of the way decisions are made both when we have the statistical probabilities associated with uncertain future events (risk) and when we lack them (ambiguity). The book presents models, primarily prospect theory, that are both tractable and psychologically realistic. A method of presentation is chosen that makes the empirical meaning of each theoretical model completely transparent. Prospect theory has many applications in a wide variety of disciplines. The material in the book has been carefully organized to allow readers to select pathways through the book relevant to their own interests. With numerous exercises and worked examples, the book is ideally suited to the needs of students taking courses in decision theory in economics, mathematics, finance, psychology, management science, health, computer science, Bayesian statistics, and engineering.

Introduction to Petroleum Economics - Chris Hinkin 2020-08-26

Introduction to Petroleum Economics is about the process of gathering project data, calculating whether a project should proceed and delivering recommendations. It discusses the science of petroleum economics, starting from square-one, the tools of the trade that petroleum economists use, day in and day out, and also its application. Along the way the author relates some helpful and informative anecdotes based on his almost twenty-year career as a petroleum economist. Vital for all oil professionals as well as students, Introduction to Petroleum Economics unravels the decision-making behind why a petroleum project moves

ahead or ends

Decision-making on Mega-projects - Hugo Priemus 2008-01-01

It will be useful for those experienced and senior professionals who are charged with authorizing and controlling projects. Recommended. P.F. Rad, Choice Building on the seminal work of Bent Flyvbjerg, this book is a collection of expert contributions that will prove essential to anyone wanting to understand why mega-projects go wrong and how they can be made to work better. Professor Sir Peter Hall, University College London, UK This book offers a refreshing and fascinating look at mega-projects from the perspective of public evaluation and planning. With the changing role of the public sector in planning and implementing large-scale projects and a subsequent strong emergence of private public modes of operation, mega-projects have become a problematic phenomenon. This volume is a major source of information and reference. It provides the reader with unique insights and caveats in mega-projects planning. Peter Nijkamp, VU University Amsterdam, The Netherlands This book enlarges the

understanding of decision-making on mega-projects and suggest recommendations for a more effective, efficient and democratic approach. Authors from different scientific disciplines address various aspects of the decision-making process, such as management characteristics and cost benefit analysis, planning and innovation and competition and institutions. The subject matter is highly diverse, but certain questions remain at the forefront. For example, how do we deal with protracted preparation processes, how do we tackle risks and uncertainties, and how can we best divide the risks and responsibilities among the private and public players throughout the different phases of the project? Presenting a state-of-the-art overview, based on experiences and visions of authors from Europe and North America, this unique book will be of interest to practitioners of large-scale project management, politicians, public officials and private organisations involved in mega-project decision-making. It will also appeal to researchers, consultants and students dealing with substantial engineering projects, complex systems, project management and transport infrastructure.