

Petroleum Economics

Petroleum refiners must face billion-dollar investments in equipment in order to meet ever-changing environmental requirements. Because the design and construction of new processing units entail several years' lead time, refiners are reluctant to commit these dollars for equipment that may no longer meet certain conditions when the units come on stream. Written by experts with both academic and professional experience in refinery operation, design, and evaluation, *Petroleum Refining Technology and Economics, Fifth Edition* is an essential textbook for students and a vital resource for engineers. This latest edition of a bestselling text provides updated data and addresses changes in refinery feedstock, product distribution, and processing requirements resulting from federal and state legislation. Providing a detailed overview of today's integrated fuels refinery, the book discusses each major refining process as they relate to topics such as feedstock preparation, operating costs, catalysts, yields, finished product properties, and economics. It also contains end-of-chapter problems and an ongoing case study.

Petroleum Economics Editions TECHNIP

Describes economic evaluations for both single processes and complete refineries, and illustrates how to use yield data, properties of products, and operating and capital costs in those evaluations. Two chapters on transportation fuels and environmental concerns have been added to the second edition. Annotation copyrighted by Book News, Inc., Portland, OR.

The petroleum industry is arguably the most influential and important industry in the world. This book offers a comprehensive introduction to the economics of oil and natural gas extraction and production along with a detailed discussion of pricing, taxing, and markets of these most valuable commodities. The optimization of the time profile of revenues from individual fields is discussed along with the development of oil pricing, tax systems, and oil and natural gas regulation. This book will be of great value to petroleum engineers, students in business and economics, policy makers, and anyone else interested in the future of petroleum production.

This book explains how to apply economic analysis to the evaluation of engineering challenges in the petroleum industry. Discussion progresses from an introduction to the industry, through principles and techniques of engineering economics, to the application of economic methods. Packed with real-world examples and case studies demonstrating how to calculate rate of return, discounted cash flow, payout period, and more, *Petroleum Economics and Engineering, Third Edition* assists petroleum engineers, chemical engineers, production workers, management, and executives in sound economic decision-making regarding the design, manufacture, and operation of oil and gas plants, equipment, and processes. The fully revised third edition is updated to reflect key advancements in petroleum technology and expanded to include chapters on middle stream operations, known as surface petroleum operations (SPO), and natural gas processing and fractionation. By looking globally at the hydrocarbon industry, the improved text offers the reader a more complete picture of the petroleum sector, which includes the global processes of exploration, production, refining, and transportation.

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

Countries that are rich in petroleum have less democracy, less economic stability, and more frequent civil wars than countries without oil.

What explains this oil curse? And can it be fixed? In this groundbreaking analysis, Michael L. Ross looks at how developing nations are shaped by their mineral wealth--and how they can turn oil from a curse into a blessing. Ross traces the oil curse to the upheaval of the 1970s, when oil prices soared and governments across the developing world seized control of their countries' oil industries. Before nationalization, the oil-rich countries looked much like the rest of the world; today, they are 50 percent more likely to be ruled by autocrats--and twice as likely to descend into civil war--than countries without oil. *The Oil Curse* shows why oil wealth typically creates less economic growth than it should; why it produces jobs for men but not women; and why it creates more problems in poor states than in rich ones. It also warns that the global thirst for petroleum is causing companies to drill in increasingly poor nations, which could further spread the oil curse. This landmark book explains why good geology often leads to bad governance, and how this can be changed.

This book is a valuable tool in understanding the dynamics of the oil industry from both a broad and specific economic perspective. It contains insights into the underlying features and mechanisms of the oil industry and its many branches, as well as a special emphasis on relevant international problems. It also provides a wealth of statistical information and should be of interest to all concerned with energy matters"

(Euroil). "Petroleum Economics, by Jean Masseron, is a fine introductory text to the entire scope of activities and economic conditions facing the world-wide petroleum industry" (AAPG Bulletin). "This book, already used by many organizations, should be especially useful for engineers, economists and managers concerned with energy matters, and also those who, beyond the technical aspects, wish to acquire and in-depth understanding of the economic mechanisms in a vital sector for world development today" (JCPT). Contents : Introduction: Principal economic characteristics. I. Crude oil supply and demand. 1. The crude oil market. 2. Technical cost of exploration and production. 3. Tax and legal aspects. II. The economics of crude oil transportation. 1. Transportation by tanker. 2. Crude oil pipelining. III. Finished products supply: refining. 1. The search for optimal economic conditions. 2. Present unit location and cost of refinery processing. 3. Legal organization. IV. Demand and marketing of petroleum products. 1. The petroleum products in the principal consuming countries. 2. The distribution of petroleum products. 3. The marketing of petroleum products. V. Petrochemicals. 1. General characteristics. 2. Economics of two large basic units. 3. The market for the principal finished products. 4. Problems of today. VI. Natural gas. 1. Natural gas supply in the world. 2. Transportation. 3. International markets and prices. Conclusion: Energy and petroleum problems of the future. Bibliography.

This book examines the ways that oil economics will impact the rapidly changing global economy, and the oil industry itself, over the coming decades. The predictions of peak oil were both right and wrong. Oil production has been constrained in relation to demand for the past decade, with a resulting four-fold increase in the oil price slowing the entire global economy. High oil prices have encouraged a small increase in oil production, and mostly from the short-lived "fracking revolution," but enough to be able to claim that "peak oil" was a false prophecy. The high oil price has also engendered massive exploration investments, but remaining hydrocarbon stocks generally offer poor returns in energy (the energy return on investment or EROI) and financial terms, and no longer replace the reserves being produced. As a result, the economically powerful oil companies are under great pressure, both financially and politically, as oil remains the backbone of the global economy./div"Development scenarios and political pressure for growth as a means of solving economic woes both require more net energy, which is the amount of energy available after energy (and thus financial) inputs required for new sources to come on line are deducted. In today's economy, more energy usually means more oil. Although a barrel of oil from any source may look the same, "tight oil" and oil from tar sands require much higher prices to be profitable for the producer; these expensive sources have very different economic implications from the conventional oil supplies that underpinned economic growth for most of the 20th century. The role of oil in the global economy is not easily changed. Since currently installed infrastructure assumes oil, a change implies more than just substitution of an energy source. The speed with which such basic structural changes can be made is also constrained, and ultimately themselves dependent on fossil fuel inputs. It remains unclear how this scenario will evolve, and that uncertainty adds additional economic pressure to the investment decisions that must be made. "Drill baby drill" and new pipeline projects may be attractive politically, but projections of economic and

associated oil production growth based on past performance are clearly untenable.

This book brings together his work, written over the past thirty years, on mineral depletion and the nature of monopoly in world oil.

Petroleum engineering now has its own true classic handbook that reflects the profession's status as a mature major engineering discipline. Formerly titled the Practical Petroleum Engineer's Handbook, by Joseph Zaba and W.T. Doherty (editors), this new, completely updated two-volume set is expanded and revised to give petroleum engineers a comprehensive source of industry standards and engineering practices. It is packed with the key, practical information and data that petroleum engineers rely upon daily. The result of a fifteen-year effort, this handbook covers the gamut of oil and gas engineering topics to provide a reliable source of engineering and reference information for analyzing and solving problems. It also reflects the growing role of natural gas in industrial development by integrating natural gas topics throughout both volumes. More than a dozen leading industry experts-academia and industry-contributed to this two-volume set to provide the best, most comprehensive source of petroleum engineering information available.

Through innovative and expansive research, *Oil Revolution* analyzes the tensions faced and networks created by anti-colonial oil elites during the age of decolonization following World War II. This new community of elites stretched across Iran, Iraq, Saudi Arabia, Venezuela, Algeria, and Libya. First through their western educations and then in the United Nations, the Arab League, and the Organization of Petroleum Exporting Countries, these elites transformed the global oil industry. Their transnational work began in the early 1950s and culminated in the 1973–4 energy crisis and in the 1974 declaration of a New International Economic Order in the United Nations. Christopher R. W. Dietrich examines how these elites brokered and balanced their ambitions via access to oil, the most important natural resource of the modern era. For four decades, *Petroleum Refining* has guided thousands of readers toward a reliable understanding of the field, and through the years has become the standard text in many schools and universities around the world offering petroleum refining classes, for self-study, training, and as a reference for industry professionals. The sixth edition of this perennial bestseller continues in the tradition set by Jim Gary as the most modern and authoritative guide in the field. Updated and expanded to reflect new technologies, methods, and topics, the book includes new discussion on the business and economics of refining, cost estimation and complexity, crude origins and properties, fuel specifications, and updates on technology, process units, and catalysts. The first half of the book is written for a general audience to introduce the primary economic and market characteristics of the industry and to describe the inputs and outputs of refining. Most of this material is new to this edition and can be read independently or in parallel with the rest of the text. In the second half of the book, a technical review of the main process units of a refinery is provided, beginning with distillation and covering each of the primary conversion and treatment processes. Much of this material was reorganized, updated, and rewritten with greater emphasis on reaction chemistry and the role of catalysis in applications. *Petroleum Refining: Technology, Economics, and Markets* is a book written for users, the practitioners of refining, and all those who want to learn more about the field.

Fundamentals of Petroleum Refining presents the fundamentals of thermodynamics and kinetics, and it explains the scientific background essential for understanding refinery operations. The text also provides a detailed introduction to refinery engineering topics, ranging from the basic principles and unit operations to overall refinery economics. The book covers important topics, such as clean fuels, gasification, biofuels, and environmental impact of refining, which are not commonly discussed in most refinery textbooks. Throughout the source, problem sets and examples are given to help the reader practice and apply the fundamental principles of refining. Chapters 1-10 can be used as core materials for teaching undergraduate courses. The first two chapters present an introduction to the petroleum refining industry and then focus on feedstocks and products. Thermophysical properties of crude oils and petroleum fractions, including processes of atmospheric and vacuum distillations, are discussed in Chapters 3 and 4. Conversion processes, product blending, and alkylation are covered in chapters 5-10. The remaining chapters discuss hydrogen production, clean fuel production, refining economics and safety, acid gas treatment and removal, and methods for environmental and effluent treatments. This source can serve both professionals and students (on undergraduate and graduate levels) of Chemical and Petroleum Engineering, Chemistry, and Chemical Technology. Beginners in the engineering field, specifically in the oil and gas industry, may also find this book invaluable. Provides balanced coverage of fundamental and operational topics Includes spreadsheets and process simulators for showing trends and simulation case studies Relates processing to planning and management to give an integrated picture of refining

This book explains how to apply economic analysis to the evaluation of engineering challenges in the petroleum industry. Discussion progresses from an introduction to the industry, through principles and techniques of engineering economics, to the application of economic methods. Packed with real-world examples and case studies demonstrating how to

This set gives a broad introductory overview of the entire petroleum marine industry and how it is affected by the world petroleum markets. Volume 1: Oil: An introduction to shipping Why tanker owners? Pre-Onassis era Onassis era Post-Onassis era - creating and dealing with the surplus Refinery operation Tanker demand Tanker design and employment patterns Forecasting tanker rates Oil pollution liability LGP carriers LNG carriers.

This text shows managers and technical workers how to gauge the market from published data and how to understand all the things that affect market dynamics. Readers learn about key physical features of the market.

Please contact the authors at upstream.petroleum.in.excel@gmail.com for details of how to access the trial version of *Crystal Ball*, as well as the Excel and other files which are *not* part of the e-book version download. "This is a book no deal team should be without. It is a must for those involved in upstream oil and gas transactions, planning, budgeting, investment appraisal and portfolio management. Its step-by-step approach cuts through complexity, making it comprehensive and understandable by a wide range of users with a wide range of abilities. It can be used as a textbook, an introductory primer or as a handbook that you can dip in and out of or read cover to cover." —Michael Lynch-Bell, Senior Advisor, Oil & Gas, Ernst & Young LLP; ex-officio Chairman, UN Expert Group on Resource Classification In the upstream petroleum industry, it is the value of post-tax cashflows which matters most to companies, governments, investors, lenders, analysts, and advisors. Calculating these cashflows and understanding their "behavior," however, is challenging, as the industry's specialized fiscal systems can be complex, jargon-laden, and sometimes seem to be a "world of their own". *Upstream Petroleum Fiscal and Valuation Modeling in Excel: A Worked Examples Approach* demystifies fiscal analysis which, unlike disciplines such as Earth sciences and engineering, can be learned from a book. Written in plain English for laymen and for experienced practitioners alike, it is a reader-friendly, clear, practical, step-by-step hands-on guide for both reference and self-paced study. The book does not catalogue the 100+ different petroleum fiscal regimes in use at the time of writing. Rather, drawing on the authors' combined 48 years' experience, it takes a more timeless, generic treatment, by covering the most common variants of royalties, taxation, production sharing arrangements, bonuses and abandonment funding, through a dual approach: first, showing how to model them in Excel, and then providing interactive exercises to prompt (and answer) questions that analyze impacts on cashflows.

In addition to the main text, the book consists of over 120 Excel files (ranging from modular examples to full models) in Excel 2007 and 2003 formats; over 400 pages of supplementary PDF files; VBA features to enhance model functionality; and an introduction to risk modeling with exercises for the included trial version of Oracle's Crystal Ball software. It offers both a wealth of content and models equal to or surpassing what is available from fiscal modeling courses costing several times more; and greater insights into underlying calculations than commercially available "black box" fiscal software. New US Securities and Exchange Commission (SEC) rules planned for 2013 will force petroleum companies to disclose more fiscal information on an individual country basis. This will make it more important than ever for analysts to understand how to model oil and gas terms and the potential impacts of the disclosed government payments on future oil and gas company profitability. Due to the heavy use of graphics and cross references used in this particular text, some readers might find that the printed book offers a more optimal reading experience than certain e-formats particularly with the Kindle eMobi format.

The development of Nigeria's oil industry is examined comprehensively in this book, originally published in 1984. It charts the changing course of her economy and examines the dramatic effect oil has had on Nigeria's domestic and international policies. Oil has enabled her to command a powerful position in African affairs and within OPEC itself, but at the same time, has held back other forms of economic development. Nigeria's future in the oil industry, as well as in related fields such as gas, is assessed both in the light of her former policies and in the changing world economy. This book will be of interest to all concerned in the oil industry, international finance or world power politics.

"This book describes the petroleum industry in easy-to-understand language for both the layperson and engineer alike. From the economics of searching for oil and gas, getting it out of the ground, into pipelines, into refineries, and, finally, into your gas tank, this book covers the petroleum industry like no other treatment before"--Provided by publisher.

A unique, research-based study of the Kuwait Petroleum Corporation and the role it plays in Kuwait's effort to integrate itself into the world economy as an autonomous actor, not as another dependent commodity exporter.

There are few areas of economic policy-making in which the returns to good decisions are so high—and the punishment of bad decisions so cruel—as in the management of natural resource wealth. Rich endowments of oil, gas and minerals have set some countries on courses of sustained and robust prosperity; but they have left others riddled with corruption and persistent poverty, with little of lasting value to show for squandered wealth. And amongst the most important of these decisions are those relating to the tax treatment of oil, gas and minerals. This book will be of interest to Economics postgraduates and researchers working on resource issues, as well as professionals working on taxation of oil, gas and minerals/mining.

The emergence of the international oil corporation as a political actor in the twentieth century, seen in BP's infrastructure and information arrangements in Iran. In the early twentieth century, international oil corporations emerged as a new kind of political actor. The development of the world oil industry, argues Katayoun Shafiee, was one of the era's largest political projects of techno-economic development. In this book, Shafiee maps the machinery of oil operations in the Anglo-Iranian oil industry between 1901 and 1954, tracking the organizational work involved in moving oil through a variety of technical, legal, scientific, and administrative networks. She shows that, in a series of disagreements, the British-controlled Anglo-Iranian Oil Company (AIOC, which later became BP) relied on various forms of information management to transform political disputes into techno-economic calculation, guaranteeing the company complete control over profits, labor, and production regimes. She argues that the building of alliances and connections that constituted Anglo-Iranian oil's infrastructure reconfigured local politics of oil regions and examines how these arrangements in turn shaped the emergence of both nation-state and transnational oil corporation. Drawing on her extensive archival and field research in Iran, Shafiee investigates the surprising ways in which nature, technology, and politics came together in battles over mineral rights; standardizing petroleum expertise; formulas for calculating profits, production rates, and labor; the "Persianization" of employees; nationalism and oil nationalization; and the long-distance machinery of an international corporation. Her account shows that the politics of oil cannot be understood in isolation from its technical dimensions.

Engineers seek solutions to problems, and the economic viability of each potential solution is normally considered along with the technical merits. This is typically true for the petroleum sector, which includes the global processes of exploration, production, refining, and transportation. Decisions on an investment in any oil or gas field development are made on the basis of its value, which is judged by a combination of a number of economic indicators. Economic Analysis of Oil and Gas Engineering Operations focuses on economic treatment of petroleum engineering operations and serves as a helpful resource for making practical and profitable decisions in oil and gas field development. Reflects major changes over the past decade or so in the oil and gas industry Provides thorough coverage of the use of economic analysis techniques in decision-making in petroleum-related projects Features real-world cases and applications of economic analysis of various engineering problems encountered in petroleum operations Includes principles applicable to other engineering disciplines This work will be of value to practicing engineers and industry professionals, managers, and executives working in the petroleum industry who have the responsibility of planning and decision-making, as well as advanced students in petroleum and chemical engineering studying engineering economics, petroleum economics and policy, project evaluation, and plant design.

This overview of project finance for the oil and gas industry covers financial markets, sources and providers of finance, financial structures, and capital raising processes. About US\$300 billion of project finance debt is raised annually across several capital intensive sectors—including oil and gas, energy, infrastructure, and mining—and the oil and gas industry represents around 30% of the global project finance market. With over 25 year's project finance experience in international banking and industry, author Robert Clews explores project finance techniques and their effectiveness in the petroleum industry. He highlights the petroleum industry players, risks, economics, and commercial/legal arrangements. With petroleum industry projects representing amongst the largest industrial activities in the world, this book ties together concepts and tools through real examples and aims to ensure that project finance will continue to play a central role in bringing together investors and lenders to finance these ventures.

Combines the theory and practice of raising long-term funding for capital intensive projects with insights about the appeal of project finance to the international oil and gas industry Includes case studies and examples covering projects in the Arctic, East Africa, Latin America, North America, and Australia Emphasizes the full downstream value chain of the industry instead of limiting itself to upstream and pipeline project financing Highlights petroleum industry players, risks, economics, and commercial and legal

arrangements

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

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

In 20th century society, oil has played a fundamental role not only from the economic point of view, but also from the point of view of the political relationships established between major Western countries and oil-producing countries. A survey into oil history, its market dynamics and price evolution, is essential for a deeper understanding of modern industry and world economy, as world development depends on oil supplies, prices, and its political accessibility. Oil Economics and Policy follows the historical development of the oil industry, and inevitably also covers many aspects of energy resource economy. In so doing, it pays particular attention to one aspect, namely, the fixing of oil prices. This is mainly in order to attempt to understand whether, and by how much, the structural transformations that the oil industry has undergone during the various phases of its existence - and the various market structures deriving from them - have influenced the dynamics of oil prices. Alberto Clô is Professor of Industrial Economics at the University of Bologna. Minister of Industry and Trade during Lamberto Dini's government (January 1995-May 1996), he has been a member both of national and international scientific boards and of ministerial committees. He is author of numerous writings on industrial and energy economies and editor-in-chief of the journal Energia.

The Political Ecology of Oil and Gas Activities in the Nigerian Aquatic Ecosystem reviews the current status of the ecosystems and economic implications of oil and gas development in Nigeria, a key oil-producing state. The ecological and economic impacts of oil and gas development, particularly in developing nations, are crucial topics for ecologists, natural resource professionals and pollution researchers to understand. This book takes an integrative approach to these problems through the lens of one of the key oil-producing nations, linking natural and human systems through the valuation of ecosystem services. Provides background information on Nigerian aquatic environments, its local history of oil exploration and a review of the physical chemistry of crude oil Reviews global and national perspectives on the oil and gas industry from a physical ecological, to a socio-political and economic ecological perspective Demonstrates real-life situations of the interactions and impacts of Nigerian petroleum production on the environment and local populations through case studies

Revised and updated to reflect major changes in the field, this second edition presents an integrated and balanced view of current attitudes and practices used in sound economic decision-making for engineering problems encountered in the oil industry. The volume contains many problem-solving examples demonstrating how economic analyses are applied to different facets of the oil industry.;Discussion progresses from an introduction to the industry, through principles and techniques of engineering economics, to the application of economic methods to the oil industry. It provides information on the types of crude oils, their finished products and resources of natural gas, and also summarizes worldwide oil production and consumption data.

An introduction to petroleum economics theory including cash flow analysis, global fiscal regimes, portfolio theory and practical model building.

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