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Editorial Policy

The Energy and Value Letter brings together academics and practitioners worldwide to discuss timely valuation issues in the energy sector. It publishes news from the Centre for Energy and Value Issues (CEVI), its linked organizations and others (including calls for papers), columns on topical issues, practitioners' papers: short articles from institutions, firms, consultants, etcetera, as well as peer-reviewed academic papers: short articles on theoretical, qualitative or modeling issues, empirical results and the like. Specific topics will refer to energy economics and finance in a broad sense. The journal welcomes unsolicited contributions. Please e-mail to **w.westerman@rug.nl** (Wim Westerman), a copy of a news item, column or a completed paper. Include the affiliation, address, phone, and e-mail of each author with your contribution. A column or news item should not have more than 400 words and a paper should not exceed 3,000 words.

Up to the 5th CEVI conference and awaiting the 4th CEVI book

by the CEVI board

We are underway towards a new "lustrum"! The May 7-10, 2015 Multinational Energy and Value Issues conference is the 5th in a series that started in 2007 and brought us to Amsterdam, Istanbul, Groningen, Chicago and now again Istanbul. Mehmet Baha Karan is with his team doing the best to make the conference an unforgettable one. The first day will especially be devoted towards energy markets and energy hubs types of issues, with speakers from regulatory bodies and corporate practice. The second day will be packed with paper presentations by people from academia and practice, with an emphasis on sustainability issues. As we are expecting delegations from countries such as the USA, the Netherlands, Turkey and Australia, a truly multinational conference will be ahead of us.

At the conference, the 4th CEVI book with Springer will be presented. The twelve Chapters of the book are already becoming available online, but the book as a whole will be released at the conference itself. Congratulations to John Simpson, André Dorsman, Wim Westerman and all of the Chapter authors are in place here. Have a look at the abstracts (courtesy to Springer and the authors!) in this issue and convince yourself that the book may serve as yet another example of the broadness of our centre. Topics range from hard technology to soft technology to market issues, methodologies cover econometrics, case studies and quite a lot in between, topics range from traditional fossil fuels to cutting edge renewables and the book's authors stem from countries all around the globe.

While the Istanbul conference is still ahead us, we are already busy with a new book. Contact authors have been solicited and abstracts are already being written. The book will of course have strong links with the upcoming conference's main themes, especially the green energy issues that will be focussed on at the second conference day. But again the range of the proposed Chapters will become very broad, with topics such as valuation of traditional and non-traditional parts of energy firms and the valuation of energy industry bonds that are rooted in Islamic finance. We wish Özgür Arslan-Ayaydin and her fellow editors lots of success with completing this "lustrum" (5th) issue in the CEVI series, knowing that it may take at least a year from now before the new CEVI book may see the daylight.

Now it looks as if we are an organisation of conferences and books, but CEVI is more than that. Individual members are meeting each other at conferences, universities, corporations and even at home. The common history that we create makes quite some of us more than just colleagues. As we are welcoming new participants in our centre, the organisation as a whole prospers. At times some of us have to take steps from CEVI away, but we are happy that old ties are sometimes so strong that we do meet still them, albeit in quite other professional and private capacities than before. This is a way that CEVI wants to function as a linking pin between the finance academia and profession, across countries and specialisations. We may be not that overwhelmingly large, but we do add value in our field.

"The 5th Multinational Energy and Value Conference"

Organized by:

Center For Energy and Value Issues (CEVI), Amsterdam, The Netherlands

and

The Kadir Has University, Istanbul, Turkey

and

Energy Markets Research and Application Center of The Hacettepe University, Ankara, Turkey

http://www.centerforenergyandvalue.org/

May 7 – 10, 2015, Istanbul, TURKEY

The objective of the conference is to bring together academics and practitioners from all over the world to focus on timely energy finance and investments, financial performance, energy markets and valuation issues in the energy sector. Papers dealing with developed as well as developing countries are welcome. *Specific topics* must refer to energy issues and include, but are not limited to:

Financial Regulation; Financial Markets; Financial Risks; Asset Pricing; Value at Risk; Capital Structure; Sourcing Capital; Corporate (Re-) Structuring; Corporate Governance; Behavioural Finance; Financial Performance; Cost Control; Financial Accounting; Fiscal and Legal Issues.

The topic of the opening session will be: Green energy, socially responsible investing and Islamic Finance. This session will be chaired by Özgür Arslan-Ayaydin.

The second day of the conference includes practitioner presentations on topics such as; energy strategy, regulation, law and energy security. Senior government leaders from different countries share energy-related business opportunities in their markets.

Updates on the conference will be regularly announced to the conference participants and other parties.

Please submit your papers (completed or nearly completed) or participation interest via e-mail to: centerforenergyandvalue@gmail.com, c/o Mr. Kazım Barış Atıcı, by 01/ December/ 2014 (*deadline extended*). The title page should include the affiliation, address, phone, and e-mail of each author together with the appropriate JEL classifications. Each participant agrees to serve as a discussant of a paper of his/her own area of interest, if needed.

Papers selected for this conference may be submitted for possible publication in a CEVI book, dedicated to this conference by *Springer Verlag*. All submitted papers will be subject to a blind peer review process.

Further information regarding conference organisation and accommodation, travel arrangements, fees and activities will be published on the conference website in due course. The conference also includes a “practitioners day”, at no extra costs for conference presenters and discussants.

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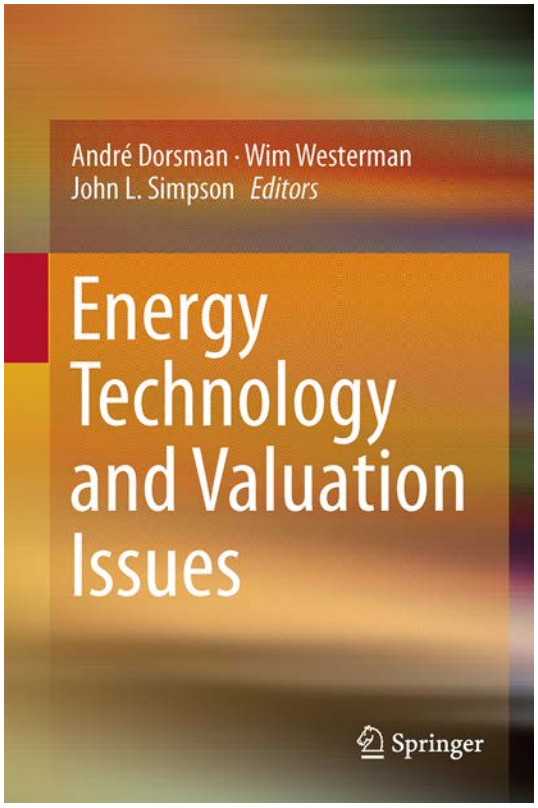

- Comprehensive collection of fresh research on energy finance and valuation
- Mix of authors from academia and practice
- International diversification of authors and topics

This volume investigates the impact of energy technology innovations on economic development and presents new areas of research into the financial economics of energy as well as new studies into valuation, electricity pricing and the economic, regulatory and environmental costs of alternative energy sources. Academics and practitioners take a global perspective and present cases from several countries. The book concentrates on three issues: 1) innovation and shocks in energy markets; 2) environment and renewables and 3) fossil fuel regulation. The book will provide a useful resource for anyone with an academic or business interest in energy and value issues.

This is the fourth volume in a series on energy organized by the Center for Energy and Value Issues (CEVI). The previous volumes in the series include *Financial Aspects in Energy* (2011), *Energy Economics and Financial Markets* (2012) and *Perspectives on Energy Risk* (2014).

Content Level » Research

Keywords » Alternative energy sources - Economic development - Electricity markets - Electricity pricing - Energy economics - Energy market regulation - Energy technology and innovation - Financial economics - Fossil fuel regulation - Renewable energy sources

Related subjects » Energy Technology - Environmental / Development / Agricultural Economics - Finance & Banking - Industrial Organization - Policy, Economics, Management & Transport

Visit for more information: **http://www.springer.com/economics/environmental/book/978-3-319-13745-2**

Chapter 1. Energy Technology, Policy and Valuation

André B. Dorsman, John L. Simpson, Wim Westerman (editors)

Abstract
This Chapter provides a preview to the motivation of the book which is to report new research undertaken in energy technology, policy and valuation issues and more specifically to cover this title in three parts to include innovation and shocks, environment and renewables and finally, fossil fuels regulation. The contents of the book provide readers with an international as well as several country specific perspectives which are included to complement to the global nature of the research. The editors trust that the book will be well received and enjoyed by anyone with an academic and/or a business interest in energy and value issues.

Chapter 2. Energy Innovations and the Economy: An Historical Overview

Bert Scholtens

Bert Scholtens is professor at the Department of Economics, Econometrics and Finance at the University of Groningen, the Netherlands and at the School of Management of the University of Saint Andrews, UK.

Abstract
This chapter provides an introductory overview of the use of energy in relation to the economy over time. Energy consumption has skyrocketed with the course of time and energy is being used for increasingly more purposes. Especially societal, industrial and technological change brought about a dramatic increase in per capita energy use. Specific attention is paid to how changes in the use of energy sources and innovations come about. Here, we provide different views of energy transitions: the entrepreneurial perspective, the socio-technical perspective, and the economic-political view. In case energy efficient innovations induce an increase in energy consumption that partly offsets the energy savings, there is a so-called rebound effect. This effect occurs in both consumption and production. Furthermore, the role of energy in the current economy is discussed as there are widely different views about how important energy actually is for economic development.

Keywords
History; Energy transition; Economy; Innovation; Rebound effects

Chapter 3. Energy prices, sectoral indices and regulation

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Abstract
The aim of this research is to examine the time-varying correlation between selected industrial sector indices (oil-intensive, oil-substitutes and non-oil-related) and oil price shocks. We investigate this correlation for both oil-importing and oil-exporting economies. Using data from 1998 until 2013 and employing a Scalar-BEKK model, we report the following regularities: (i) the correlation between oil price shocks and index returns are showing some differences depending on whether a country is oil-importer or oil-exporter, (ii) the correlations are industry-specific and shock-specific and (iii) the demand-side shocks mainly generate moderate positive correlations, whereas index returns have low to zero correlation with the supply-side shocks. Prominent among our results is that oil-specific demand shocks have a moderate positive correlation with all indices. Our results have important implication for investors, as well as policy makers.

Keywords: Oil price shocks, industrial sectors, stock market returns, oil price regulation

Chapter 4. OPEC's influence on European oil stock returns

Maarten Croese and Wim Westerman

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Abstract
This study examines the influence of OPEC quota decisions (quota cut, - increase or unchanged decision) on the stock price of 4 typical -listed- oil firms in Europe. In addition, we consider the influence on the Brent crude oil price. Using the event study methodology, 51 announcements are considered in the period 1991 – 2012. The results imply that OPEC quota decisions have a direct influence on both crude oil returns and oil firms' stock returns. This influence is either positive or negative and large or small, depending on the type of decision and the size of the firms in terms of market capitalization. However, since the difference between the 2 small firms is also significant, we conclude that market capitalization alone is not a determining factor.

Key words: OPEC, oil firms, stocks, event study, Europe

Chapter 5. The Impact of Environmental Strengths and Concerns on the Accounting Performance of Firms in the Energy Sector

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Abstract
Energy sector firms are highly affected by the imposition of costs and community attitudes related to their environmental impact. In this chapter, we study the impact of environmental strengths and concerns of firms in the energy sector on their firm performance. We aim to uncover whether positive environmental activities add extra costs or help firms in the energy industry achieve a higher future profitability and compare this impact with firms that do not belong to that industry. Based on the environmental scores compiled by Kinder, Lyndenberg and Domini Research and Analytics, Inc., we show that the environmental concerns of U.S. firms in the energy industry are significantly lower than their environmental strengths and this difference is much larger for energy firms than for firms that do not belong to the energy industry. In addition, we find that only the environmental concerns of energy sector firms have predictive value in terms of future corporate performance that is incremental to a group of earnings-predicting variables. Our results for the energy sector indicate that reducing environmental concerns pays off by improving corporate profitability.

Keywords: Accounting Performance, Energy Sector, Environmental Performance

Chapter 6. Electricity, Consumption, GDP and Renewables

Erdinç Telatar

Okan University, Turkey

Abstract
This chapter analyzes the relationship between renewable and non-renewable electricity consumption and economic growth for 130 countries categorized into four groups based upon the World Bank income classification (high, upper middle, lower middle, and low income). The main motivation for this study is to find out whether the causality relationships change depending on the income level of countries. For this purpose panel causality tests are used. Electricity consumption data is disaggregated into renewable and non-renewable sources with the aim of providing more information for policy makers to use in designing energy policies in the context of environmental and sustainable development. The results of the study show that the conservation hypothesis is supported for high, upper-middle and lower-middle income groups, while the neutrality hypothesis is supported for low-income countries. The main finding of this chapter is that the causality relationship between electricity consumption and economic growth disappears for lower-income levels. We can conclude that implementing green economy policies in the context of sustainable development is a reasonable choice for developing countries, provided that it is supported by developed nations.

Chapter 7. Renewable energy in Indonesia: Integrating human capital and money flows

Niek Jan Willem Verkruijsse, Bartjan Pennink and Wim Westerman

University of Groningen

Abstract
In developing countries, renewable energy plays an important role. Applying the available natural resources in conjunction with a technology push may help to solve energy sourcing issues and to develop remote areas in such countries. Whereas many large-scale projects have been taking place, small-scale projects that bring a technology push are rare to find. This study investigates the possibilities of implementing renewable energy sources in the form of Mobile Biodiesel. We construct a conceptual model in which local economic development is infused with money flows and group entrepreneurship aspects in order to realise the implementation of this energy source. Our field research was conducted in remote villages in the Pulang Pisau area in Central Kalimantan, Indonesia. The results indicate a large shortage of technical, managerial, and financial knowledge and skills in the remote villages, resulting in a lack of human capital. Furthermore, the occurrence of frequent electricity blackouts with long durations disturbs the local communities in their daily activities. To address these problems, this study argues for the integration of community empowerment, social capital, social franchising and especially group entrepreneurship in combination with a transparent financial system on the flow of money while introducing a new technology. Although our model is based on empirical results in a remote Indonesian area and on the Mobile Biodiesel technology, the model is also applicable in developing areas throughout and it can be integrated with other renewable energy technologies.

Key words: Renewable Energy, Indonesia, Human Capital, Money Flows

Chapter 8. Liberalization process and legal aspects of the Turkish natural gas market

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Abstract
This chapter aims to study the liberalization process, legal aspects and especially reform plans of Turkish natural gas market with a critical approach. The natural gas market of Turkey is growing consistently. Although Turkey stands next to the important fossil fuel producing countries, its natural gas resources are very limited. Nevertheless, Turkey's geographical position is a key link between the world's largest energy resources and the European markets. Therefore the regulation and liberalization of Turkish Natural Gas Market is of not only national but also global importance. Currently, Turkey's natural gas market is in the early stages of liberalization. First significant steps regarding the liberalization of the market were taken with the Natural Gas Market Law of 2001 (NGML). Since then there has been a slow but gradual progress. The pricing strategy of Turkish governments, unrealistic targets of the NGML and capacity problems of the Turkish private sector are some of the important reasons why the planned liberalization stage could not be reached considerably. The legally

unbundling of market activities and a significant decrease in market share of BOTAŞ, which is the state owned and market dominant natural gas company, are exemplifying the failed targets of the NGML. After 13 years of enforcement of the NGML, the law maker plans to reform the NGML in order to ensure the compliance with the EU regulations and to bring dynamism in the liberalization process. However, realistic targets and a change in the pricing policy of the government seem to be necessary in order to achieve a certain stage of market liberalization. It can also be recommended to take more effective measures to ensure a fair access to the natural gas transmission system for all of the market players. At that point the unbundling of market activities is indispensable. The unbundling of market activities can be carried out through different methods such as "a legal separation of transmission activities", "an independent system operator" and "an independent transmission operator." On the other hand, establishing and keeping strong energy companies will be necessary for Turkey in order to reach its long declared target of being an international trade hub for natural gas.

Chapter 9. Efficiency and service quality analysis of the Turkish national gas distribution companies: a case study of Turkey

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Abstract
The Energy Market Regulatory Authority (EMRA) sets the tariff that determines the revenue requirements of the Turkish natural gas distribution companies by using a popular type of an incentive regulation, the price cap method. Generally, incentive regulation improves efficiency and reduces costs; on the other hand the companies may not be willing to increase the service quality in this kind of regulation. This chapter analyzes the efficiency and service quality of the Turkish natural gas distribution companies. The findings should also be of interest to regulators in other developing countries that are at the early stage of their natural gas market regulation. The companies' efficiency scores are evaluated both by non-parametric and parametric methods, Data Envelopment Analysis (DEA) and Stochastic Frontier Analysis (SFA) respectively. The same distribution companies are ranked by the service quality scores that are obtained from service quality data. The results are used to determine the relationship between efficiency and service quality of the companies, to decide on the effectiveness of the regulation and to suggest a reward/penalty scheme for the tariff design.

Keywords: regulation, price cap, efficiency, service quality, natural gas distribution companies

Chapter 10. Deregulation in Electricity Markets: The Interplay of Political Stability and Fossil Fuel Prices.

John L. Simpson

Abstract
Electricity markets are perceived to be monopolistic or oligopolistic in nature, whether government or private sector owned. Prices, therefore, are subject to government (political) interference and/or monopoly pricing as well as economic factors, such as the supply cost of fossil and other fuels. Greater interest is now being shown by international energy economists, regulators, policy makers and practitioners as to whether or not country electricity markets are becoming more globalised with pricing subject to economic factors, such as global fossil fuel prices. This chapter examines a representative sample of larger OECD country and transitional/developing country electricity markets in a dynamic model. In the long-term in the cointegrated markets, economic and financial forces of energy prices and fossil fuel prices interact with political forces indicating the degree of political stability and level of government interference to produce stability in the electricity markets. No such stability occurs in the long-term for the remainder of the markets where it might be suggested that government interference may yet be distorting the electricity markets concerned thus producing relatively less degrees of electricity market liberalisation. With regard to the short-term dynamics the only countries where the electricity markets are endogenous when all variables interact in each market on a one month lag are Hong Kong and Canada. Only in the cases of China, New Zealand and Malaysia are electricity prices significantly exogenous.

Keywords: Electricity, energy, economic, political, domestic, government, interference.

Chapter 11. Country versus Global Influences on future Spot Natural Gas Prices: Evidence of deregulation from America and Britain

John Simpson and Abdul Alsameen

Abstract
This Chapter revisits the importance of domestic versus global economic factors in explaining future spot gas prices in the domestic natural gas markets of the US and the UK, which arguably are the two leading major Western economies engaged in ongoing market reform. The study, involving a comparison of progress in each economy towards natural gas market liberalization, should be interesting for policy makers globally. Assuming that market liberalization will in due course produce economic welfare benefits, the study posits that the relative importance of these factors is one indicator of the extent of natural gas market deregulation in each market. Updating the Simpson (2011) study, lagged daily oil and gas data from 3rd January 2000 to 28th July 2014 are analyzed and a proven structural break is introduced to control for time varying relationships as affected by the global financial crisis. Global oil futures prices together with domestic gas futures prices are not shown to be very strong predictors of future domestic spot gas prices, thus indicating some progress in US and UK domestic gas market deregulation. However cointegration and Granger causality studies show that there is some distance to go in market liberalization for both the US and the UK. It is up to further research to explain why this is the case in terms of policy actions taken.

Keywords: Oil prices, gas prices, futures, cointegration, VAR models, de-coupling, deregulation.