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- **John Simpson discusses Australia’s potential to become the premier global LNG exporter**
- **Abstracts Chapters of “Energy and Finance: Sustainability in the Energy Industry”, Springer Verlag (2016)**

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Editorial Policy

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Wim Westerman
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We are ahead of schedule with this edition of the Energy and Value Letter, the main reason being that we like to show you the abstracts of the new CEVI book with Springer. Being called Energy and Finance: Sustainability in the Energy Industry, it collects articles on green energy, socially responsible investment and (Islamic) finance. In a series that started in 2011, this already the fifth book. Many thanks should go again to Barbara Fess and her team at Springer Verlag for the fine publishing work.

Not being a contributor myself, I can “semi-objectively” recommend you to read the book. The editors, André Dorsman, Özgür Arslan-Ayaydin and Mehmet Baha Karan selected an interesting bunch of papers that are really worthwhile reading. As usually stemming from all over the world, the authors give both academically and practically interesting insights in their fields of expertise. We are happy for their approvals to publish abstracts of the contributions in this EVL volume, by way of a preview.

Now that the fifth book has been done, it is already time to think of the sixth one. André Dorsman, Mehmet Baha Karan and Volkan Erdiger are already working on it. This new book will deal with Energy economics and finance, with a special focus on geopolitical issues. Now that both Springer and the CEVI board have approved the concept, the editors will start to approach authors for a contribution. At this moment, unsolicited contributions may fit in well, so check your files and give it a try!

Next to working on the book series, CEVI has recently had other activities as well. Examples to be given include trainings of business people at the spot, paper presentations at several conferences and various organizational efforts. We are now in a process of rewrapping our strategy in this respect. It is not that we really aim for making big changes, but it is always good to think things over, in order to stay innovative, effective and efficient. In a later edition of the EVL, we will report on this.

While you are probably enjoying your summer, we also do of course. But meanwhile we are thinking of our activities afterwards. In less than a year's time, CEVI has its next conference. Rumor has it that Cyprus (Turkish part) is the place to be, but official announcements are not yet made. One way or the other, I am looking forward to it. This is not just of the practical and academic experience to be gained at the conferences, but also to meet the old CEVI friends again and to make new ones.

Let me finish this editorial message by pointing you at the column (or is it rather an article?) of John Simpson on Australia's potential to become the global LNG exporter. The article is not only worthwhile when reading about LNG issues from an “Aussie” point of view is your thing. It also opens much broader perspectives on geopolitical issues, energy economics and finance. In doing so, the article not only relates to the upcoming CEVI book, but also to the heart of what CEVI is going for.



Australia's potential as the premier global LNG exporter

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A few facts relating to the premier export and production position Australian gas may occupy in the next decade need to be summarised for clarification purposes. The data and factual information in this article has been obtained from the International Energy Agency (IEA, 2016). At the outset it is felt that most Australians agree that the Australian gas resources are vast and that fully Australian owned companies do not have the financial resources to develop them. Equity FDI is needed if the country is to work towards the goal of global leader in gas exports.

To be the leading country producer has patriotic appeal, but many Australians say, so what? These people still want answers to several key questions. Is Australia unequivocally the net winner economically (net after dividend outflow to US and European multinational shareholders)? Has Australia positioned itself well enough to benefit from significant employment growth and local business participation? Has sufficient supply of inexpensive gas to Australian consumers been negotiated as power generation for industry and domestic use moves further away from coal fired plant?

Assuming substantial economic benefit exists, will the scenario of export leadership still unfold? Assuming Europe will continue to take less costly, but more risky Russian pipeline gas, is Australian gas too expensive to continue to compete even in its main markets in Asia with growing US production and export capacity and increasing capacity from Qatar and Malaysia?

There may be a hint of an answer to some of these questions after a review of the facts as follows;

- New projects in Australia will add a further 61.4 million tonnes of capacity by June 2018. This is ahead of the US which is the only other country with significant projects underway with immediate plans to increase production capacity by 17.8 million tonnes. Australia is at present responsible for 50% of global floating liquefaction capacity. Australian gas exports rank number three at the moment behind Qatar and Malaysia.

-The US and Canada have a great potential for substantial increases in LNG plants and projects, which could well gather pace as gas prices improve. Australian gas project planning seems more advanced, but the US (with lower production costs and capital costs) will benefit from the Panama Canal expansion as its foot in the door to Asia. Australian gas resources are costly to develop being located offshore in on the Australian North West Shelf. Labour costs in Australia are also very high (in fact, wages in the gas industry are up to three times higher than US gas industry wages).

-Asia continues to consume over 70% of global LNG. Demand for Australian gas has increased since 2010 by 10% and production by 35%. In the US these numbers are 8% and 38% respectively. These two countries are expected to account for 90% of new gas exports by 2020 in an LNG market that is expected to increase by 50% between 2015 and 2020. This is despite countries, such as Japan, reduc-



ing gas imports due to increased construction of coal plants and solar and nuclear reinvestment. Australian gas exports seem now dependent on continued growth and consumption in the Chinese market.

-It seems that the US (as a more efficient and less costly producer) would be first in line to export into the EU if the EU decided on greater supply diversification. Australia should still at least try to compete in that market. The EU's regasification capacity is still quite low (at about 25% utilisation) and the EU's GDP is anticipated to increase by 30% by 2030.

-LNG prices remain linked to oil prices and volatility in the latter will determine the extent of investment and capacity increases both in negotiated long-term contracts and in short-term spot markets. Recently in Australia, low oil prices have put at risk up to \$200 billion of new plant investment. In the medium-term, a low valued Australian dollar and low interest rates are helpful for exports, but this could change with impending increases in inflationary pressures in the US and the flow on to higher interest rates. Such events could trigger rises in the Australian exchange rate and in interest rates.

-In the medium-term the IEA feels that oil prices will also increase and drag up gas prices. The contractual connection of gas to oil prices could be harmful despite the fact that at present the majority of Australian export contracts to Asia are under long-term contracts. The continued growth in the spot gas market (now 28% of global markets from 5% in 2010) will largely be dependent on short-term economic factors (e.g. favourable prices and exchange rates).

-Clemente (2016) makes the point that developing countries, which contain 2.7 billion people (China and India in the main) are "primed for their own oil age" with low consumption compared to Western countries. Petroleum for use in motor vehicles and power stations has "nowhere near a significant substitute". India is a huge market where much of existing power is generated from coal. The next step would imply a gradual transition to oil and natural gas.

-It seems that it will be up to the West to show a lead in promoting cleaner forms of energy for fueling motor vehicles and industrial power plant for this to change. Natural gas need to be part of this equation as it is cleaner burning and the nexus between oil and gas prices is unlikely to be broken. Decoupling in the longer term is desirable for the enhancement of the economies and efficiencies of gas on gas competition.

-The Australian banking sector, which is largely Australian owned, could play an important role in the general development of Australian resources and their export capacity. Australian banks are well managed and well capitalised by global standards. The role in enhancing Australian owned export and production capacity increases need not be in direct lending or in taking direct equity. Leadership would be the main contribution. Together, the Australian banks could establish a new resources merchant bank devoted to funding Australian owned mining ventures.

-The guidelines for such a bank could be that domestic equity is maximised for new projects, but foreign equity raised for those projects is to be no more than 49% and that any extra funding is provided with underwritten overseas and local debt issues at a premium coupon. Some will say this is simplistic, but the objective of course is to curtail overseas dividend outflow as much as possible and keep money in Australia. It is possible if the political and economic will is there.



Why should it be that certain countries that need Australian mining product also fully own the Australian mine? Of course substantial FDI is needed and Australia is a wealthy developed country with low political risk and is also a good global citizen. These perceptions need to be maintained, but for new projects however, the Australian view needs to be that, wherever possible they should limit overseas ownership otherwise it may be better to leave the product in the ground for the future.

In conclusion, it appears that Australia has the ability to become the global gas export leader. It has the capacity to increase production. It has access to the vast amounts of FDI capital required for this expansion. It appears ahead of the infrastructure game in this endeavour with new projects completed and in an advanced stage of planning. The coming together of all of this is dependent on several factors. On the domestic front Australians will want to know results of and have monitored the cost benefit analyses associated with majority overseas investment. It needs to gain in a substantial way economically. Otherwise what is the point of giving away such a valuable finite resource?

Government needs to review policies relating to red and green tape which are currently another barrier to FDI and indeed local investment. Foreign investment guidelines need to be enforced in relation to the protection of strategic resources. However, at the very least Australians need to know that local employment and local businesses and local consumers will benefit significantly. In respect to the latter, it is important that lower cost gas been made available for Australian consumption as oil and coal become less important generally in power generation. Australian equity for new projects needs to be maximised.

Producers in Australia need to focus on efficiency of production to reduce substantial labour costs involved in winning exports. A current impediment, largely beyond control, lies in the locations of the gas resource where difficult and expensive offshore production platforms are needed. It is assumed that the nexus between oil and gas prices will remain for some time in gas export markets. The development of Australian export capacity will depend on modest rather than huge increases in oil prices. Low interest rates and a low dollar would assist exporters greatly, but in the absence of these influences flowing on from the US economy, oil and gas prices rises will need to be sufficient to compensate producers.

The assumption is that developing countries will continue to grow strongly as the transition to advanced economic status continues and will make the transition from other fossil fuel sources (that is, oil and coal). The marketing strategy for gas from Australia needs to include strong diversification, realising that Japanese demand is waning, but recognising that other markets (not only the Chinese market) exist and that the EU is one of those markets. If Asia is to remain the best overall market, Australia needs to be first into India, which is a huge potential importer of LNG.

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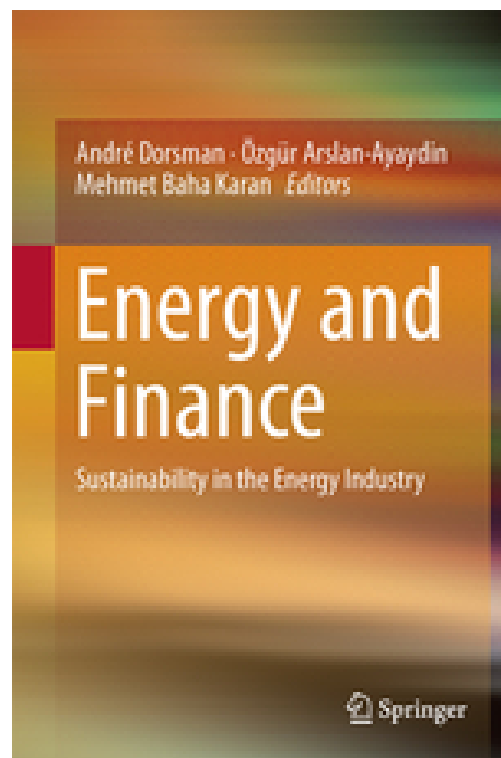
A. Dorsman, Ö. Arslan-Ayaydin, M.B. Karan (Eds.)

Energy and Finance

Sustainability in the Energy Industry

- ▶ Presents a comprehensive collection of new research on green energy, socially responsible investment and Islamic finance
- ▶ Sheds new light on the energy shift towards renewable energy
- ▶ Case studies from several countries

This book analyses how socially responsible investments as well as the rising importance of Islamic finance are linked to the shift towards renewable energy. Academics and practitioners in the field take a global perspective and present case studies from several countries. The book is divided into three parts: The first part sheds new light on the energy shift towards renewable energy. The second shows the increasing interest of investors in sustainability, and the authors argue that investors not only look at expected returns and risks, but also at social returns. Finally, the third part explains the need for social returns in Islamic finance, which cannot be explained by traditional finance theory. This is the fifth volume in a series on energy organized by the Centre for Energy and Value Issues (CEVI).





Chapter 1. Introduction: Energy, Sustainability and Finance

André B. Dorsman, Özgür Arslan-Ayaydın, Mehmet Baha Karan (editors)

Abstract

Sustainability has become a central issue for firms in the energy industry. These firms have been under increasing pressure to uplift not only their environmental consciousness but also social impact of their actions. One constraint of these firms is prevention of trading off shareholder value maximization with increasing their corporate social responsibility activities geared to the long term benefits of stakeholders. Based on the principles of fairness and equity, Islamic Banking and Finance also provides a vehicle for the firms in the energy industry by incentivizing their corporate social responsibility activities.

Keywords: Sustainability, corporate social responsibility, Islamic Banking and Finance, Finance and energy

Chapter 2. Carbon rights and emissions in the Energy Industry

Jiayuan Chen, Cal Muckley, Don Bredin, Liming Wang

Abstract

In this chapter, we examine high frequency order imbalance in the European Union emissions trading system carbon market at announcements of current and prospective economic activity and verified emissions. We verify that analysts do strive to forecast announcements accurately but that our scheduled public announcements nevertheless indeed do contain important surprise components. Our findings suggest that the preponderance of the order imbalance related information assimilation in carbon emission rights occurs within 5 minutes of the German (DE NO) and European Union new order (EU NO), European Union industrial production (EU IP) and United States non-farm payroll (US NFP) scheduled announcements. This is new evidence of information assimilation in the carbon emissions market. The extent of information assimilation is documented for 15 minutes both before and after each announcement in contiguous 5-minute windows, and relative to same time interval observations on non-announcement days. The findings are of especial importance to firms in the energy sector as, above certain capacity thresholds, power stations and other combustion plants, oil refineries and coke ovens are regulated in the European Union emissions trading system.

Keywords: carbon rights, emissions, information assimilation, net order flow



Chapter 3. The green thumb in the energy industry – The impact of managerial political affiliation on corporate environmental performance

Özgür Arslan-Ayadin, James Thewissen

This chapter tests the upper echelons theory of Hambrick and Mason (1984) by investigating whether managers' political party affiliation (liberal or republican) explains the environmental performance of firms in the energy industry. Based on the environmental scores compiled by Kinder, Lydenberg and Domini Research and Analytics, Inc., we show that the political affiliation of managers in the US between 1996 and 2013 is a key factor in explaining differences in corporate environmental performance. Specifically, firms with Democratic managers have a stronger environmental performance than those with Republican managers. Additionally, while firms with Republican CEOs have lower environmental concerns than those with Democratic CEOs, there is no significant difference in their environmental strengths. These results suggest that the political ideology of the CEO has more impact on abating poor environmental performance than in promoting and enhancing good environmental performance. We conclude that political orientation of managers is a key determinant in the development of corporate environmental strategies in the energy industry.

Keywords: Energy Firms, Environmental Performance, Upper Echelons Theory, Political Orientation

Chapter 4. International Arrangements, the Kyoto Protocol and the Turkish Carbon Market

Doğu Sever, Necmiddin Bağdadioğlu

Abstract

Using a combination of desk research and quantitative approach, this chapter assesses Turkey's obligations deriving from the Kyoto Protocol, and other international arrangements with a specific focus on carbon trade. The desk research involves reviewing Turkey's greenhouse gas emission and her responsibilities with regard to the aforementioned protocol and arrangements, whereas the quantitative approach includes an estimation of Turkey's emission reduction potential. The assessment shows that while not having any binding commitment to reduce greenhouse emissions deriving from the protocol, Turkey recognizes her responsibilities originating from the arrangements. Accordingly, Turkey implements various policies including voluntary emission trade initiated in 2005. Yet, the progress has been rather slow, among other reasons, due to inadequate legal infrastructure and high level of emission in the Turkish energy sector. This chapter cautions that unless the necessary legal adjustments, particularly in the Turkish tax law, are made, the carbon trade in Turkey is likely to be exposed to the carbon trade fraud once experienced within the EU Emission Trading System. Nevertheless, Turkey has accumulated significant experience through the voluntary emission trade so far. Based upon 2013 data, Turkey has a potential of reducing 20 million tons greenhouse gas emission with market value of \$80 million yearly by revitalizing 308 small and large scale renewable energy projects.



Chapter 5. The financial impact of terrorist attacks on the value of the oil and gas industry: An international review

David Holwerda, Bert Scholtens

Abstract

Energy firms operate in a strategic industry and their operations are vulnerable to terrorist attacks. We investigate how terrorism impacts stock returns of these firms. We analyze the effect of 105 terrorist attacks on oil and gas companies during 2001-2012. We find that there is no evidence that shareholders respond in a significant manner to these attacks. The reason may be that financial market participants are already got used to terrorism and that attacks on oil and gas companies occurring on a large scale and, therefore, are already included in the risk premium. As such, the financial market participants seem to assume that firms already efficiently manage the threat of terrorism in the energy industry. We conclude that financial markets seem to be efficient in absorbing the impact of terrorist attacks.

Keywords: Energy finance, terrorism, stock market, event study, energy security

Chapter 6. When corporate social responsibility causes tone inflation in earnings press releases: Evidence from the oil and gas industry

Özgür Arslan-Ayaydin, James Thewissen

Abstract

This study focuses on the impact of corporate social responsibility (CSR) on managers' reporting behavior of qualitative information in the oil and gas industry. Firms in the oil and gas industry have garnered enormous attention from their stakeholders, placing increasing expectations on them to engage in socially responsible investments. However, there is ample evidence that CSR investments addressing broader stakeholder concerns do not necessarily lead to maximization of shareholders' wealth. Based on 1,700 earnings press releases (EPR) issued by the universe of US firms in the oil and gas industry between 2005 and 2014, we show that managers of more socially responsible firms opportunistically inflate the tone of their qualitative disclosures to signal their shareholders that CSR investments are not executed at the expense of their wealth. We also show that the tone of the EPR of socially responsible firms in the oil and gas industry contains less incremental information value to predict future firm performance, which lends considerable support to our assumption that optimistic tone in EPR is used for covering up the poorer accounting performance.

Keywords: Corporate social responsibility, Oil and gas industry, Impression management, Future Firm performance



Chapter 7. Governing Energy Transitions: Transition Goals in the Swiss Energy Sector

Reinier Verhoog, Matthias Finger

European countries are currently committing to energy transitions so as to make the supply of electricity more sustainable. In this chapter we present our theoretical extension of a transition framework with the concepts of power, agency and politics in order to study the governance challenges of energy transitions. Furthermore, we demonstrate the application of our extended framework to a case in the Swiss energy sector. We focus on analyzing the distribution and gradual concentration of power within the sector and its implications for the energy transition. We conclude that the promotion of renewable energy through subsidization leads to a price scissor effect that squeezes small Swiss utilities out of the market by lowering electricity consumption and wholesale prices, while increasing self-production by households. The power increasingly lies with several large utilities, cities and cantons that are currently committing to ambitious energy transition goals. Such a concentration of power and alignment of goals can help in accelerating the energy transition in Switzerland.

Keywords: agency, energy transition, framework, politics, power, transition research

Chapter 8. The Effect of the Relationship between Oil Price and Stock Markets in Energy Sustainable Countries

Şahnaz Koçoğlu, Mehmet Baha Karan, Ayhan Kapusuzoğlu

Abstract

The aim of this paper is to analyze and understand the relation between oil price and stock markets in the energy sustainable countries. The main hypothesis of the study is that the economies of the countries in which energy is sustainable are more resistant to changes in oil prices. The energy sustainability in this study is defined according to the Energy Sustainability Index prepared by World Energy Council (WEC). The relationship between the stock market performance of the group and oil prices was analyzed through Johansen Co-integration Test and Granger Causality Test in the 2004-2014 and 2008 Financial Crisis period (2008-2010). The result of the top 7 countries in the Energy Sustainability Index indicates that the stock market performance of the group is not co-integrated with oil prices. However, there is a co-integration between stock market performance and oil prices in the 7 countries at the bottom, so economies of the bottom 7 countries are sensitive to oil prices. During the crisis period, a co-integration appears between the variables. Finally, none of the sub-indexes are individually fully compatible with the main index co-integration outcomes in the total period.

Keywords: Oil Prices, Stock Markets, Energy Sustainability Index, World Energy Council, Co-integration, Causality

Chapter 9. The Economic Drivers of the Political Will for Social Responsibility in Energy Policy for Fossil Fuel Exporting Countries

John L Simpson, Abdulfatah Alsameen and John Evans

Abstract

The essence of this Chapter is to ascertain the relative importance of domestic and global economic factors when explaining that country's political will to implement policies of social responsibility in fossil fuel exports. Political risk ratings from both developed and developing countries, which export fossil fuels, are treated endogenously. The ratings are hypothetically treated as dependent on global oil and global benchmark and domestic stock market prices. The test results are compared. Evidence is produced, contrary to theory on pure political risk, that domestic and global economic factors do affect political risk (and thus the political will associated with social responsibility) with greater strength in developed countries and with greater strength for all countries in the post global financial crisis (GFC) period. In the cases of primarily developed countries, the increase in wealth from exports have reduced political risk and perhaps created the circumstances where policies of social responsibility are affordable and where such policy implementations are on government agendas.

Keywords: Cointegration, Causality, political risk, political will, social responsibility, fossil fuels, exports.

Chapter 10. Green Sukuk: An Innovation in Islamic Capital Markets

Nafis Alam, Rima Turk Ariss, Meryem Duygun Fehti

Abstract

Green *sukuk* are *Shariah* compliant investment vehicles that fund environmentally friendly projects such as solar parks, bio-gas plants and wind farms. The main objective behind the development of green *sukuk* is to address *Shariah* concerns for protecting the environment. For *Shariah*-compliant investors notably in South East Asia and the Gulf Cooperation Council region, green *sukuk* represent an ideal investment that benefits the environment and promotes Corporate Social Responsibility. This chapter looks into the potential for Green *sukuk* in major Islamic finance markets. It maps the differences between more conventional types of socially responsible investments (SRI) and those funds that are guided by the morals promoted through Islam. The chapter also presents a case study of the French Orasis *Sukuk*, the first green *sukuk* in existence.

Chapter 11. Islamic Finance versus Conventional Finance

Özgür Arslan-Ayaydin, Mohamed Bejaoui, André B. Dorsman and Khurram Shahzad

Abstract

Transactions in Islamic Finance (IF) are guided by ethical, moral, and social considerations. Moreover, according to IF money should be used to create social value. With regard to these point of views, IF aligns with Socially Responsible Investing (SRI), which refers to the combination of social, environmental and ethical requirements when making financial investment decisions. In contrast to conventional finance (CF) where the investments are solely focused on risk and return, SRI and IF have also a social value component. The main question in this chapter is; when one decides to invest in or issue bonds following the rules of, does such a decision influence the financial risk-return window? In this study we compare Sukuk (Islamic bonds) and conventional bonds and find that, after correcting for risk, the returns on Sukuk are significantly higher than those of conventional bonds. Our conclusion is that investors are not paying for being ethical, but issuers of Sukuk bear a higher cost of debt compared to issuers of conventional bonds.

Keywords: Islamic Finance, Sukuk, Sustainability