

Masters in International Affairs

Academic year 2010 - 2011

The politics and economics of international energy

E657 – Fall – The politics and economics of international energy – 6 ECTS

Bungener, Mondays, 08:15 - 10:00

Course Description

Economic growth requires constantly growing use of energy, and the availability of sufficient sources of energy on a global scale is not for granted. Energy – oil, gas, power – remains one of the biggest businesses, and maintains a strategic characterization that sets it aside from other economic sectors. As such, it attracts the attention of industrial, financial and political actors internationally. The course aims at providing students with the critical knowledge and skills to avoid superficial generalizations and simplifications – which unfortunately remain all too common.

> PROFESSOR

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Syllabus

Course Website

http://graduateinstitute.ch/mia/mia/mia_non_compulsory_courses_2/politics_economics_of_international_energy_2.html

Requirements

Active participation.
A mid-term and a final written exam.

Readings : very important organizational points

At the first class I will make available a USB memory stick containing a large part of the readings and other important documentation. The same contents will also be available on the class web page and a copy will be deposited in the Library. Readings MUST be completed IN ADVANCE of each class. However, you are not expected to read everything; you should use your judgment in selecting what is truly important. Readings that are available only on paper are highlighted in **yellow**.

Background reading

Daniel Yergin, "The Prize: The Epic Quest for Oil, Money, and Power"

You are expected to read this book in parallel with class proceeding although it is not listed as reading for any class in particular. It is fun to read anyhow.

Statistical reference

BP Statistical Review of World Energy 2010
<http://www.bp.com/sectiongenericarticle.do?categoryId=9033088&contentId=7060602>

Session	Topic	Readings
1 September 27	Introduction – Long-Term Energy Perspectives and Scenarios	<ul style="list-style-type: none"> EIA (DOE) International Energy Outlook 2010 Highlights and Chapters 1 & 2 http://www.eia.doe.gov/oiaf/ieo/pdf/0484%282010%29.pdf IEA Energy Technology Perspectives 2010 Executive Summary http://www.iea.org/Textbase/npsum/ETP2010SUM.pdf ExxonMobil “The Outlook for Energy A View to 2030” http://www.exxonmobil.com/corporate/files/news_pub_eo_2009.pdf Royal Dutch Shell “Shell energy scenarios to 2050” http://www-static.shell.com/static/public/downloads/brochures/corporate_pkg/scenarios/shell_energy_scenarios_2050.pdf
2 October 4	International Oil: Reserves, Production, Technology	<ul style="list-style-type: none"> API – All About Petroleum C.J.Campbell and J.H. Laherrère, “The end of cheap oil” Scientific American March 1998 http://www.oilcrisis.com/_archive/ScientificAmerican199803/EndOfCheapOil.htm M.Adelman “The Genie out of the Bottle” Ch. 2 Arnott and Skinner paper for EUROGULF project (OIES WPM29) http://www.oxfordenergy.org/pdfs/WPM29.pdf Skinner “World Energy Trends: Recent Developments and their Implications for Arab Countries” OIES SP19 http://www.oxfordenergy.org/pdfs/SP19.pdf Mabro “The Peak Oil Theory” OIES Comment September 2006 http://www.oxfordenergy.org/pdfs/comment_0906-2.pdf Lucas Herrmann, Elaine Dunphy, Adam Sieminski “European Integrated Oils - The cost of producing oil” Deutsche Bank, 24 February 2009 http://www.fullermoney.com/content/2009-02-26/Euro_oilgas.pdf Alberta Royalty Review Panel Report “Our Fair Share”, pages 44-54 http://www.albertaroyaltyreview.ca/panel/final_report.pdf David McColl “The Eye of the Beholder: Oil Sands Calamity or Golden Opportunity?” Canadian Energy Research Institute Oil Sands Briefing ISBN: 1-896091-85-7 February 2009 http://www.ceri.ca/Publications/documents/CERIOilSandsBriefingFebruary2009.pdf
3 October 11	Playing with the molecules: oil refining and more	<ul style="list-style-type: none"> File “Information from Wikipedia.doc” OPEC, World Oil Outlook 2009, section two http://www.opec.org/opec_web/static_files_project/media/downloads/publications/WOO%202009.pdf RAND “Oil Shale Development in the US” http://www.rand.org/pubs/monographs/2005/RAND_MG414.pdf “Refining and Price” in OEF#62 August 2005 page 3-9 pdf available
4 October 18	The International Oil Market: Functioning	<ul style="list-style-type: none"> Mabro “The International Oil Price Regime: Origins, Rationale and Assessment” JEL XI,1 June 2005, pages 3-20 Platt’s Methodology and Specifications Guide – Crude Oil http://www.platts.com/Oil/Resources/Methodology%20&%20Specifications/crudeoilspecs.pdf?S=n Bassam Fattouh “The Drivers of Oil Prices: The Usefulness and Limitations of Non-Structural model, the Demand–Supply Framework and Informal Approaches” OIES WPM 32 March 2007 http://www.oxfordenergy.org/pdfs/WPM32.pdf Bassam Fattouh “The Dynamics of Crude Oil Price Differentials” OIES WPM 36 January 2008 http://www.oxfordenergy.org/pdfs/WPM36.pdf Bassam Fattouh: “Prospects of the DME Oman Crude Oil Futures Contract” OIES Monthly Comment March 2008 http://www.oxfordenergy.org/pdfs/comment_0308-1.pdf Bassam Fattouh “Basis Variation and the Role of Inventories: Evidence from the Crude Oil Market” OIES WPM38 January 2009 http://www.oxfordenergy.org/pdfs/WPM38.pdf Bassam Fattouh “Reinforcing Feedbacks, Time Spreads and Oil Prices”

		<p>Oxford Energy Comment March 2009 http://www.mees.com/postedarticles/oped/v52n17-5OD02.htm</p> <ul style="list-style-type: none"> US Interagency Task Force on Commodity Markets, Interim Report on Crude Oil, http://www.cftc.gov/stellent/groups/public/@newsroom/documents/file/itfinterimreportoncrudeoil0708.pdf Roger Diwan "The financialisation of the oil market and the increasing impact of financial institutions in the pricing of crude oil" paper presented at the Rahmania Annual Seminar 2010, pdf available
5 November 1 ATTENTION: There will be no class on October 25	The International Oil Market: the Debate	<ul style="list-style-type: none"> Bassam Fattouh and Christopher Allsopp "The Price Band and Oil Price Dynamics" OIES Comment July 2009 http://www.oxfordenergy.org/pdfs/comment_01_07_09.pdf Ali Aissaoui, "Shaping Long Term Oil Price Expectations for Investment : is it Workable? Is it Achievable?" APICORP Commentary Volume 3 No. 11-12 Nov.-Dec. 2008 http://www.apicorp-arabia.com/html/cms/media/pdf/research/Commentary03112008.pdf Ali Aissaoui, "What Is A Fair Price For Oil And What Makes \$75 A Barrel Seem Fair?" APICORP Commentary Volume 3 No. 11-12 Nov.-Dec. 2008 Volume 4 No. 4 April 2009 http://www.apicorp-arabia.com/html/cms/media/pdf/research/Commentary_Vol_4_No_4_2009.pdf Giacomo Luciani "From Price Taker to Price Maker? Saudi Arabia and the World Oil Market" paper presented at the Rahmania Annual Seminar 2010, pdf available
6 November 15 ATTENTION There will be no class on November 8	National and International Oil Companies	<ul style="list-style-type: none"> Valerie Marcel "Oil Titans" RIIA Chapters 1,9,10 Baker Institute "The Changing Role of National Oil Companies in International Energy Markets" Executive Summary April 2007 http://www.rice.edu/energy/publications/studies/BI_Study_35-1.pdf S.Heller, P.Hartley, K.Medlock III "Empirical Evidence on the Operational Efficiency of National Oil Companies" Baker Institute http://www.rice.edu/energy/publications/docs/NOCs/Papers/NOC_Empirical.pdf M.Chen "National Oil Companies and Corporate Citizenship" Baker Institute http://www.bakerinstitute.org/programs/energy-forum/publications/docs/NOCs/Papers/NOC_CC_Chen.pdf J.Barnes and M.Chen "NOCs and U.S. Foreign Policy" Baker Institute http://www.rice.edu/energy/publications/docs/NOCs/Papers/NOC_US-ForeignPolicy_Barnes-Chen-revised.pdf "National Oil Companies and International Oil Companies" OEF#57 May 2004 pages 12-18
		MIDTERM : TAKE HOME
7 November 26 ATTENTION This is a make-up class taking place on a Friday rather than Monday	Natural Gas: Reserves, Production, Technology, Perspectives	<ul style="list-style-type: none"> Vivek Chandra "Fundamentals of Natural Gas" Excerpts available online at http://www.natgas.info/index.html EIA (DOE) International Energy Outlook 2010 Chapter 3 http://www.eia.doe.gov/oiaf/ieo/pdf/0484%282010%29.pdf Jensen "The Development of a Global LNG Market" OIES 2004 http://www.oxfordenergy.org/bookdetails.php?ng5 ENCOURAGED "Future EU gas demand and external supply options: volumes, costs and transit issues" Chapters 1-3 J.Stern "Is There A Rationale for the Continuing Link to Oil Product Prices in Continental European Long-Term Gas Contracts?" OIES NG19 http://www.oxfordenergy.org/pdfs/NG19.pdf J. Stern "Continental European Long-Term Gas Contracts: is a transition away from oil product-linked pricing inevitable and imminent?" OIES NG

		<p>34 September 2009 http://www.oxfordenergy.org/pdfs/NG34.pdf</p> <ul style="list-style-type: none"> • M. Foss “United States Natural Gas Prices to 2015” OIES NG18 http://www.oxfordenergy.org/pdfs/NG18.pdf • Energy Charter Secretariat “International Pricing Mechanisms for Oil and Gas: Putting a Price on Energy” (2007) http://www.encharter.org/fileadmin/user_upload/document/Oil_and_Gas_Pricing_2007_ENG.pdf • Energy Charter Secretariat “Fostering LNG Trade: Developments in LNG Trade and Pricing” 2009 http://www.encharter.org/fileadmin/user_upload/document/LNG_2009_ENG.pdf • Polina Zhuravleva “The Nature of LNG Arbitrage, and an Analysis of the Main Barriers for the Growth of the Global LNG Arbitrage Market” OIES NG31 June 2009-08-19 http://www.oxfordenergy.org/pdfs/NG31.pdf
8 November 22	Geopolitics of Gas	<ul style="list-style-type: none"> • Baker Institute & Stanford “Geopolitics of Natural Gas” available from Baker Institute website http://www.rice.edu/energy/publications/geopoliticsofnaturalgas.html – especially Hayes “Algerian Gas to Europe” and Victor “The Belarus Connection” • J. Stern “The New Security Environment for European Gas: Worsening Geopolitics and Increasing Global Competition for LNG” OIES NG15 http://www.oxfordenergy.org/pdfs/NG15.pdf • J. Stern: “The Russian-Ukrainian gas crisis of January 2006” OIES January 2006 http://www.oxfordenergy.org/pdfs/comment_0106.pdf • Simon Pirani, Jonathan Stern and Katja Yafimava “The Russo-Ukrainian gas dispute of January 2009: a comprehensive assessment” OIES NG27 February 2009 http://www.oxfordenergy.org/pdfs/NG27.pdf • Aleksandar Kovacevic “The Impact of the Russia–Ukraine Gas Crisis in South Eastern Europe” OIES NG29 March 2009 http://www.oxfordenergy.org/pdfs/NG29.pdf • Gareth M Winrow “Problems and Prospects for the “Fourth Corridor”: the Positions and Role of Turkey in Gas Transit to Europe” OIES NG30 June 2009 http://www.oxfordenergy.org/pdfs/NG30.pdf • Pirani, Stern and Yafimava “The April 2010 Russo-Ukrainian gas agreement and its implications for Europe” OIES NG42 June 2010 http://www.oxfordenergy.org/pdfs/NG42.pdf • ENCOURAGED “Future EU gas demand and external supply options: volumes, costs and transit issues” Chapter 4
9 November 29	Oil and Development I: the Resource Curse; Oil and Conflicts; Resource Nationalism	<ul style="list-style-type: none"> • Richard Auty “Resource Abundance and Economic Development” United Nations University 1998 http://www.wider.unu.edu/publications/working-papers/previous-series/1998/en_GB/rfa-44/ • Paul Stevens “Resource Impact: Curse or Blessing? – A Literature Survey” in Journal of Energy Literature IX 1 June 2003 pdf available • Humphreys, M., J. Sachs and J. Stiglitz eds. “Escaping the Resource Curse” Chapters 1, 6 & 7 • Frederick van der Ploeg and Steven Poelhekke “Volatility Harms Growth – New Perspectives on the Natural Resource Curse” April 2008, manuscript http://www.iadb.org/intal/aplicaciones/uploads/ponencias/i_Foro_ELSNIT_2008_10_01_Vanderploeg_Poelhekke.pdf • SECURE “The impact of resource nationalism, voluntary restriction of production and political instability on global oil supplies: quantitative analysis of historical experience”, July 2009, manuscript, pdf available
10 December 6 This class is likely to be rescheduled	European Energy Policies: Security of Supply and Competition	<ul style="list-style-type: none"> • Solana-Piebalgs Paper on External Energy Policy http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressdata/EN/reports/90082.pdf • European Commission “An Energy Policy for Europe” January 10, 2007 http://eur-lex.europa.eu/LexUriServ/site/en/com/2007/com2007_0001en01.pdf

<p>to Friday December 10</p>		<ul style="list-style-type: none"> • European Council, Presidency Conclusions of the Brussels European Council (8-9 March 2007) http://www.consilium.europa.eu/ueDocs/cms_Data/docs/pressData/en/ec/93135.pdf • Docs third package “Commission welcomes the Council agreement on oil stocks which improves EU's readiness in case of supply crises” IP/09/914 Brussels, 12 June 2009 http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/914&format=HTML&aged=0&language=EN&guiLanguage=en • “Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EC” Brussels, 16.7.2009 COM(2009) 363 http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52009PC0363:EN:NOT • “The Commission adopts new rules to prevent and deal with gas supply crises” IP/09/1153 Brussels, 16 July 2009 http://europa.eu/rapid/pressReleasesAction.do?reference=IP/09/1153&format=HTML • “THE JANUARY 2009 GAS SUPPLY DISRUPTION TO THE EU: AN ASSESSMENT” Commission staff working document accompanying the Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL concerning measures to safeguard security of gas supply and repealing Directive 2004/67/EC Brussels, 16.7.2009 SEC(2009) 977 final http://ec.europa.eu/energy/strategies/2009/doc/2009_ser2_autre_document_travail_service_part1_ver2.pdf
<p>11 December 13</p>	<p>Renewable Sources, CCS and the Carbon Market</p>	<ul style="list-style-type: none"> ▪ EREC & Greenpeace: Energy [r]evolution - A SUSTAINABLE GLOBAL ENERGY OUTLOOK http://www.greenpeace.org/raw/content/usa/press-center/reports4/energy-r-evolution-a-sustain.pdf ▪ McKinsey “Carbon Capture and Storage: Assessing the Economics” 2008 http://www.mckinsey.com/client-service/ccsi/pdf/CCS_Assessing_the_Economics.pdf ▪ Niels Jungbluth, et al. “LIFE CYCLE ASSESSMENT OF BIOMASS-TO-LIQUID FUELS” ESU Services GmbH 2008 ▪ EREC “European Energy Technology Roadmap” 2008 http://www.erec.org/fileadmin/erec_docs/Documents/Publications/Renewable_Energy_Technology_Roadmap.pdf ▪ DESERTEC Foundation “Clean Power from Deserts” February 2009 http://www.desertec.org/fileadmin/downloads/DESERTEC-WhiteBook_en_small.pdf ▪ ExxonMobil “Algae Biofuels Research and Development Program” http://www.exxonmobil.com/corporate/files/news_pub_algae_brochure.pdf ▪ European Commission “The EU Emission Trading System” 2009 edition http://ec.europa.eu/environment/climat/pdf/brochures/ets_en.pdf ▪ Martin I. Hoffert, and others “Advanced Technology Paths to Global Climate Stability: Energy for a Greenhouse Planet” <i>Science</i> Nov 1 2002: 981-987 pdf available
<p>12 December 20</p>	<p>The comeback of nuclear energy</p>	<ul style="list-style-type: none"> • Pierre-René Bauquis and Bertrand Barre “Nuclear Power – Understanding the Future” Editions HIRLE 2007 (disponible aussi en français: “Energie Nucléaire, comprendre l'avenir”) www.editions-hirle.com • IAEA Nuclear Technology Review 2009 http://www.iaea.org/About/Policy/GC/GC53/GC53InfDocuments/English/gc53inf-3_en.pdf • Pierre-René Bauquis “A reappraisal of energy supply and demand in 2050” Available at: http://ogst.ifp.fr/index.php?option=article&access=standard&Itemid=129&url=articles/ogst/pdf/2001/04/bauquis_v56n4.pdf • Pierre-René Bauquis “From Peak Oil to Nuclear Energy” OEF February

		2007
		<ul style="list-style-type: none">• IAEA website http://www.iaea.org/NewsCenter/Focus/NuclearPower/• NEA/IEA "Nuclear Energy Technology Roadmap" http://www.iea.org/papers/2010/nuclear_roadmap.pdf
		FINAL (take home)