home: 3715 Livingston Street NW Washington DC 20015 tel 202 966 1612 fax 202 318 8260 office: International Business Department, School of Business, George Washington University, 2201G Street NW, Washington DC 20052 tel 202 994 5981 fax 202 994 7422 email: rweiner@.gwu.edu

### **EXPERIENCE**

Teaching and

Research

### GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

2001-present Professor of International Business, Public Policy & Public Administration, and International Affairs. Courses offered: Global Perspectives (graduate), International Financial Management (graduate), International Financial Markets (graduate), International Portfolio Management (graduate), Oil: Industry, Economy, Society (undergraduate and graduate), Business and the State: Privatization and Public-Private Partnerships (graduate), Research seminar in international business (doctoral). Chairman, Department of International Business, 2001-2005. Associate Professor, 1994-2001. Global Management Research Professor, 1996-1998 (projects on financial markets and risk, privatization).

#### RESOURCES FOR THE FUTURE

WASHINGTON, DC

2005-2006 Gilbert White Fellow. Research project on speculation in petroleum markets.

GROUPE DE RECHERCHE EN ÉCONOMIE DE L'ÉNERGIE ET DES RESSOURCES NATURELLES, UNIVERSITÉ LAVAL

QUÉBEC, PQ

1990-present Associate Member.

### JOHNS HOPKINS UNIVERSITY

WASHINGTON, DC

1997-1998 Visiting Professor of International Economics, School of Advanced International Studies

JFK SCHOOL OF GOVERNMENT, HARVARD UNIVERSITY

**CAMBRIDGE, MA** 

1987-1994 Research Fellow, Center for Business and Government, formerly Energy and Environmental Policy Center. Research Associate, 1981-1985.

### **BRANDEIS UNIVERSITY**

WALTHAM, MA

1987-1994 Assistant professor of economics. Courses offered: statistics, industrial organization, environmental & resource economics, financial theory, international business, competitive strategy.

#### PHILLIPS PETROLEUM COMPANY

DENVER, CO

1994 Lecturer, Advanced Management Program. Topic: Petroleum investment in the former Soviet Union.

INSTITUTE FOR INTERNATIONAL EDUCATION WASHINGTON, DC/MOSCOW

1993 Lecturer, USAID Oil Exchange Training and Development Program.

REAL UNIVERSIDAD COMPLUTENSE
REAL COLEGIO COMPLUTENSE

MADRID/ALMERÍA, SPAIN CAMBRIDGE, MA

1992-1993 Lecturer, summer course in Environmental Studies.

# CENTER FOR THE STUDY OF FUTURES MARKETS COLUMBIA UNIVERSITY

**NEW YORK, NY** 

1988-1992 Research Associate. Projects on (1) default risk and the difference between forward and futures markets; and (2) development of non-agricultural futures trading in the 19th century.

### HARVARD COLLEGE

CAMBRIDGE, MA

1982-1985 Teaching fellow in research seminar on Business-Government relations. Designed and taught tutorial on energy economics and policy.

### **Practice**

advisory

Senior Advisor, Brattle Group, 2006-. Advisor, Seale & Associates Global Investment Banking, 2003-. Director of Risk Management, EnergySEER, 2002-. Eminent Person on Commodity Issues, UNCTAD, United Nations, 2003. Advisor, Chr. Michelsens Institutt, Senter for Petroleumsøkonomi, Bergen, 1991.

projects Consultant to (alphabetical order) Amoco, Bolivian Ministry of Finance and Economic Development, Chicago Mercantile Exchange, Futures Industry Institute, Indonesian Ministry of Finance,

International Petroleum Exchange of London, Korea Energy Economics Institute, Managed Futures Association, Merrill Lynch, Mobil, New York Mercantile Exchange, Nicaraguan Ministry of Finance, Nomura International, Petroleum Finance Co., Phillips Petroleum, Texaco, US Agency for International Development, US Department of Energy, US International Trade Commission, World Bank.

### ICF, INCORPORATED

WASHINGTON, DC

1985-1987 Associate. Designed and conducted applied economics projects, on energy, environment, and trade.

### ELECTRIC POWER RESEARCH INSTITUTE

PALO ALTO, CA

1980 Summer intern.

### **EDUCATION**

# HARVARD UNIVERSITY GRADUATE SCHOOL OF ARTS AND SCIENCES, AND SCHOOL OF BUSINESS ADMINISTRATION CAMBRIDGE, MA

Graduate program in Business Economics, joint degree from the Harvard Business School and Department of Economics. A.M., 1982; Ph.D., 1986. Dissertation: "Models of Contracting, Trading, and Spot Markets." Committee: Joseph Kalt (chair), Richard Caves, Bruce Greenwald.

### HARVARD COLLEGE

**CAMBRIDGE, MA** 

A.B., 1979, magna cum laude, in Applied Mathematics.

## PAPERS AND PUBLICATIONS

### **Articles**

"Who Bribes?: Evidence from the UN Oil-for-Food Program" (with Y. Jeong), *Strategic Management Journal*, forthcoming.

"Resource Nationalism Meets the Market: Political Risk and the Value of Petroleum Reserves" (with R. Click), **Journal of International Business Studies**, 41, #5: June/July 2010: 783-803.

"Expanding Oil Supplies" (with J. Darmstadter), **Resources** 163, Fall 2006: 11-14

"How do International Crises Affect Trade in Oil?," Resources 162, Summer 2006: 4

"Speculation in International Crises: Report from the Gulf," **Journal of International Business Studies** 36, #5: September 2005: 576-587.

"Sheep in Wolves' Clothing?: Speculators and Price Volatility in Petroleum Futures," **Quarterly Review of Economics and Finance**, 42, #2: January 2002: 391-400.

"Energy Futures Markets – Myths and Realities," **IAEE Newsletter**, 4th Quarter 1999: 4-9.

"Are International Agreements to Regulate Global Warming Necessary?" (with S. Devarajan), **Advances** in the Economics of Energy and Resources 11, 1999: 1-13.

"Middle East Crude Oil Pricing and Risk Management in the 1990s," **Journal of Energy Finance and Development** 1, #1, 1996: 21-49.

"Export Pricing in State-Owned and Private MNE's: Evidence from the International Petroleum Industry" (with J.-T. Bernard), **International Journal of Industrial Organization** 14, July 1996: 647-668.

"Brent's Hedging Effectiveness Affirmed," Argus Energy Trader 13, 28 July 1995: 13.

"Default, Market Microstructure, and Changing Trade Patterns in Forward Markets: A Case Study of North-Sea Oil," **Journal of Banking and Finance 18**, October 1994: 955-977.

"Information and Normal Backwardation as Determinants of Trading Performance: Evidence from the North Sea Oil Forward Market" (with G. Phillips), **Economic Journal** 104, January 1994: 76-95.

"The World Oil Market is not 'One Great Pool'," **Energy Studies Review** 3, 1993: 225-230.

"The 'New' Petroleum Markets: Stabilization or Speculation?," **Revue de l'Énergie** 451, July-August 1993: 560-562.

"Long-Term Contracting and 'Multiple-Price' Systems" (with R.G. Hubbard), **Journal of Business** 65, April 1992: 177-198.

"Transfer Prices and the Excess Cost of Canadian Oil Imports" (with J.-T. Bernard), **Canadian Journal of Economics** 25. February 1992: 22-40.

"Is the World Oil Market 'One Great Pool'?," **Energy Journal** 12, July 1991: 95-107.

"Efficient Contracts and Market Power: Evidence from the U.S. Natural Gas Industry" (with R.G. Hubbard), **Journal of Law and Economics** 34, April 1991: 25-67.

"Implicit Options in Forward Contracts: Empirical Estimates from the Petroleum Market" (with G. Phillips), **Review of Futures Markets** 9, #1, 1990: 1-14.

"Contracting and Price Adjustment in Commodity Markets: Evidence from Copper and Oil" (with R.G. Hubbard), **Review of Economics and Statistics** 71, February 1989: 80-89.

"The Dutch Disease in a Developing Country: Oil Revenues in Cameroon" (with N. Benjamin and S. Devarajan), **Journal of Development Economics** 30, January 1989: 71-92.

"Dynamic Policy Coordination: Stockpiling for Energy Security" (with S. Devarajan), **Journal of Environmental Economics and Management** 16, January 1989: 9-22.

"Regulation and Long-Term Contracting in U.S. Natural Gas Markets" (with R.G. Hubbard), **Journal of Industrial Economics** 35, September 1986: 71-79.

"Inventory Optimization in the U.S. Petroleum Industry" (with R.G. Hubbard), **Management Science** 32, July 1986: 773-790.

"Oil Revenues and the Dutch Disease in a Developing Country: Cameroon" (with N. Benjamin and S. Devarajan), **OPEC Review** 10, Summer 1986: 143-162. Also in **Energy Management** 9, April-June 1985.

"Oil Supply Shocks and International Policy Coordination" (with R.G. Hubbard), **European Economic Review** 30, February 1986: 91-106.

"Managing the Strategic Petroleum Reserve" (with R.G. Hubbard), **Annual Review of Energy** 10, 1985: 515-556.

"Modeling Oil Price Fluctuations and International Stockpile Coordination" (with R.G. Hubbard), **Journal** of Policy Modeling 7, July 1985: 339-359.

"When the Oil Spigot is Suddenly Turned Off" (with R.G. Hubbard), **Journal of Policy Analysis and Management** 2, Winter 1983: 299-302.

"The 'Sub-trigger' Crisis: An Economic Analysis of Flexible Stock Policies" (with R.G. Hubbard), **Energy Economics** 5, July 1983: 178-189.

### Working

### **Papers**

"Institutions sans Frontières: International Agreements and Foreign Investment" (with S. Jandhyala), under journal submission, December 2011.

"Does Foreign Investment Carry Baggage from Home?" (with R. Click and Y. Jeong), submitted to AIB and FMA annual conferences, December 2011.

"Do Managers Carry the Flag?" (with Y. Jeong), November 2010.

"Foreign Entry Through Acquisition of Corporate Assets: An Alternative Entry Mode to Greenfield and M&A" (with Y. Jeong), May 2008.

"Do Birds of a Feather Flock Together? Speculator Herding in the World Oil Market," Resources for the Future. Discussion Paper 06-31, June 2006. http://www.rff.org/documents/RFF-DP-06-31.pdf

"Multinationality and Performance: Structural or Spurious Relationship?" (with P. Dastidar), April 2007.

"Do Crises Tear the Fabric of Oil Trade? Resources for the Future .Discussion Paper 06-16, March 2006. <a href="http://www.rff.org/documents/RFF-DP-06-16.pdf">http://www.rff.org/documents/RFF-DP-06-16.pdf</a> Nominated for best-paper award, AIB Emerging-Frontiers Conference.

"Managing Petroleum Fiscal Dependence: Lessons from Venezuela and Mexico," GW Center for Latin American Issues Working Paper, January 2001.

"Myths and Realities of Derivatives Markets: An International Perspective," August 1999.

"Financial Innovation in an Emerging Market: Petroleum Derivatives Trading in the 19th Century," GW School of Business and Public Management Working Paper 98-64, September 1998.

"Petroleum Fiscal Dependence: Revenue Forecasting and Oil Price Volatility," GW School of Business and Public Management Working Paper 96-44, December 1996.

"Does Futures Trading Increase Price Volatility? Evidence from Crude Oil Derivatives" (with G. Phillips), November 1996.

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"Natural Resource Depletion and National Income Accounting" (with S. Devarajan)," GW School of Business and Public Management Working Paper 95-13, June 1995.

"Comparative Development of Market Institutions: A Case-study of Petroleum in Russia and the United States," March 1993.

"Origins of Futures Trading: The Oil Exchanges in the 19th Century," Cahiers du GREEN 92-09, Université, Laval, May 1992.

**Books** 

**Energy and Environment: Challenges and Opportunities** (with W. Hogan et al), Harvard International Energy Studies 7, Cambridge: President and Fellows of Harvard College, 1994.

**Oil Markets in a Turbulent Era** (with K. Dominguez et al), Harvard International Energy Studies 6, Cambridge: President and Fellows of Harvard College, 1991.

Oil and Money: Coping with Price Risk Through Financial Markets (with K. Dominguez and J. Strong), Harvard International Energy Studies 5, Cambridge: President and Fellows of Harvard College, 1989.

Oil Shock (with A. Alm), ed., Cambridge: Ballinger Press, 1984.

**Contributions** 

to Collected

**Volumes** 

"Conflict, and Corruption in International Trade: Who Helped Iraq United Nations Sanctions?" (with Y. Jeong), **International Handbook on the Economics of Corruption,** Volume 2 (S. Rose-Ackerman and T. Søreide, eds.), Edward Elgar, 2011.

"Oil Price Volatility: Supply, Demand, and Speculation," in **Risk and Uncertainty in the Changing Global Energy Market: Implications for the Gulf**, Abu Dhabi: Emirates Center for Strategic Studies and Research, 2004: 133-148.

"Oil Developments in the Former Soviet Union" (with W. Hogan), in **Energy and Environment:** Challenges and Opportunities, 1994: 82-113.

"The Downstream: Buying, Selling, and Using Energy and Nonfuel Minerals" (with M. Slade and C. Kolstad), in **Handbook of Energy and Natural Resource Economics**, Volume 3 (A. Kneese and J. Sweeney, eds.), Amsterdam: North Holland, 1993: 935-1009.

"Trading Performance in the International Oil Market" (with G. Phillips), in **Oil Markets in a Turbulent Era**, 1991: 72-92.

"Multinational Corporations, Transfer Prices, and Taxes: Evidence from the U.S. Petroleum Industry" (with J.-T. Bernard), in **Taxation in the Global Economy** (A. Razin and J. Slemrod, eds.), Chicago: University of Chicago Press for the NBER, 1990: 123-154.

"The WTI Futures Market and the Brent Forward Market: A Comparative Analysis," in **Oil and Money**, 1989: 7-47.

"Household Demand for Natural Gas: Evidence from the Residential Energy Consumption Survey" (with J. Anderson), in **The Changing World Energy Economy** (D. Wood, ed.), Cambridge: IAEE, 1987: 328-332.

"Natural Gas Contracting in Practice: Evidence from the United States" (with R.G. Hubbard), in **Natural Gas Contracts and Markets** (M. Hoel et al, eds.), Amsterdam: North Holland, 1987: 279-313.

"Strategic Petroleum Reserve" (with R.G. Hubbard), in **Encyclopedia of Physical Science and Technology** (R. Meyers, ed.), Volume 13, Orlando: Academic Press, 1987: 414-430.

"Petroleum Regulation and Public Policy" (with R.G. Hubbard), in **Regulatory Reform** (L. Weiss and M. Klass, eds.), Boston: Little, Brown, 1986: 105-136.

"Crude Oil Trading and Price Stability" (with R.G. Hubbard), in **World Energy Markets: Stability or Cyclical Change** (W. Thompson and D. DeAngelo, eds.), Boulder: Westview Press for IAEE, 1985: 221-238.

"International Energy Cooperation: Issues in Oil Stockpiling" (with S. Devarajan), in **International Energy Policy: The Potential for Change** (P. Tempest, ed.), Bedford, UK: Cranfield Press for British Institute of Energy Economics, 1985: 79-99.

"Oil and the OECD Economies: Measuring Stockpile Coordination Benefits" (with R.G. Hubbard and J. Marquez), in **Energy and Economy: Global Interdependencies** (M. Baier, ed.), Volume 10, Bonn: GEE and IAEE, 1985: 57-73.

"Contracting and Regulation Under Uncertainty: The Natural Gas Market" (with R.G. Hubbard), in The

Energy Industries in Transition: 1985-2000 (J. Weyant and D. Sheffield, eds.), Washington, DC:

Westview Press for IAEE, 1984: 219-238.

"The Domestic Refining Industry: Economics and Regulation" (with W. Colglazier and E. Krapels), in Oil

Shock, 1984: 55-76.

"Government Stockpiles in a Multicountry World: Coordination vs. Competition" (with R.G. Hubbard), in

Oil Shock, 1984: 197-218.

"Stockpiling as an International Game" (with S. Devarajan), in Government and Energy Policy (R.

Itteilag, ed.), Alexandria, Virginia: Westview Press for IAEE, 1983: 478-491.

**Reviews** 

Energy Futures: Trading Opportunities for the 1990s, Energy Law Journal 13, #1, 1992: 101-102.

The Political Economy of World Energy, Journal of Economic History 52, March 1992: 268-269.

Responding to International Oil Crises, Energy Journal 10, January 1989: 186-188.

Foreign-

Language

Versions

"La degradación de los recursos naturales y las cuentas nacionales de ingresos," in México - Estados

Unidos: Energía y Medio Ambiente (R. Vargas S. and M. Bauer E., eds.), México: UNAM, 1993

(Spanish-language version of "Natural Resource Depletion...")

"El 'Trading' en el Mercado del Petroleo del Mar del Norte: Las Instituciones Financieras, Las Sogo

Shosha y Otros," Economia Industrial 283, January-February 1992: 133-148 (Spanish-language version

of "Information and Normal Backwardation...")

"Multinazionali, prezzi di trasferimento e imposte: il caso petrolifero americano," Energia 11, September

1990: 32-47 (Italian-language version of Multinational Corporations...")

PROFESSIONAL

**ACTIVITIES** 

#### Research

### **Awards**

George Washington University, Center for International Business Education and Research (GW-CIBER), 2011-2012. Research Project on State Capitalism.

George Washington University, Center for International Business Education and Research (GW-CIBER), 2007-2008. Research Project on Resource Nationalism.

George Washington University, Center for International Business Education and Research (GW-CIBER), 2006-2007. Research Project on Energy Security in a Market Era.

U.S. Department of Education, CIBER Program, 2006-2010. Part of GW "Dream Team" that developed proposal. Theme: Institutions and Development.

Resources for the Future, Gilbert White Fellowship, 2005-2006. Research project on petroleum-market speculation.

George Washington University Center for the Study of Globalization, Privatization and Organizational Change, 2002-2003 (with J. Kee, K. Newhouser).

George Washington University Center for the Study of Globalization, The Gulf Crisis: Report from the Volatility Front, 2001-2002.

George Washington University, Office of Research and Graduate Studies, Released Time for Research Award, Speculator Herding in Futures Markets: Microdata Evidence, 1999.

George Washington University, Institute for Global Management and Research, Research Professorship, 1996-1998.

George Washington University, University Facilitating Fund Award, The Rise and Fall of the International Petroleum Market in the 19th Century, 1995-1996.

Gouvernement du Québec, Ministère des Affaires Internationales, Québec Studies Grant, A Comparison of Public and Private Enterprise: Oil Companies in Eastern Canada and the Northeast U.S.A., 1992-1993.

Brandeis University, Mazer Grant Program, The Rise and Fall of the Petroleum Market in the 19th Century, 1991-1992.

Columbia University, Center for the Study of Futures Markets, Origins of Non-Agricultural Futures Trading: Oil Exchanges in the 19th Century, 1990-1992.

Brandeis University, Center for International and Comparative Studies, Multinational Corporations, Transfer Prices, and Taxes: A Comparison of the U.S. and Canadian Petroleum Industries, 1989-1990.

Columbia University, Center for the Study of Futures Markets, Default Risk and the Difference Between Forward and Futures Markets: An Empirical Study, 1988-1989.

P.W.S. Andrews Memorial Essay Prize in Industrial Economics, 1988.

Brandeis University, Mazer Grant Program, A Comparison of Forward Markets: Do Institutions Matter?, Summer 1988.

National Science Foundation, Regulatory and Policy Analysis Program, Economic Analysis of Multiple-Price Systems: Theory and Application to the Petroleum Market, 1984-1985 (with R.G. Hubbard).

### Presentations

(since 1990)

Strategic Management Society, Miami, November 2011.

Canadian Resource and Environmental Economics Study Group, Québec, September 2011.

Canadian Economic Association, Ottawa, June 2011.

US Congress, Subcommittee on Agriculture, Energy, and Trade of the House Small Business Committee, invited testimony, April 2011.

Tufts University, Fletcher School of Law & Diplomacy, Center for Emerging Market Enterprises, Conference on *Country Management: Strategy, Operations, and Leadership in Emerging and Frontier Economies*, invited panelist, Medford, MA, March 2011.

Causes and Consequences of Oil Shocks: Economics Perspectives, invited presentation to US Department of State, Foreign Policy Insitute, Arlington, VA, March 2011.

State Capitalism and Foreign Direct Investment: Are Chinese and Indian Companies Buying Up the World's Oil?, GW Sigur Center/Asia Society, Washington, October 2010.

Yale Law School Conference on *The Economics of Anti-Corruption Policy*, invited presentation on "Oil, Conflict, and Corruption: Lessons from Iraq," New Haven, September 2010.

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International Business Post Crisis: Prospects for Latin America, invited panelist, GW Alumni event, Rio de Janeiro, June 2010.

Academy of International Business, Rio de Janeiro, June 2010

Canadian Economic Association, Québec, May 2010

American Economic Association, Atlanta, January 2010

Academy of International Business, San Diego, June 2009

US Energy Information Administration, Annual Energy Conference session on Financial Markets and Short-Term Energy Prices, invited presentation on *Speculation and Oil-Price Volatility*, Washington, April 2009.

US Energy Information Administration, Workshop on the Relationships between Financial and Physical Markets, invited presentation on *Speculation and Oil-Price Volatility*, Washington, March 2009.

UK Parliament, Commons Treasury Select Committee, Panel on Regulation of Oil Markets, London, July 2008.

Academy of International Business, Milan, June 2008

Oil-Market Volatility: Assessing the Impact on Noncommercial Traders, invited presentation to HM Treasury, London, June 2008.

World Bank Institute Videoconference on Oil Price Volatility, Economic Impacts, & Risk Management in Asia, invited presentation on *Oil-Price Volatility: What Do We Know?*, Washington/Tokyo/Bangkok/Jakarta/Manila, June 2008.

Oil-Market Volatility: Assessing the Impact of Speculation, invited presentation to US National Intelligence Council, Langley, May 2008.

International Monetary Fund Workshop on Non-Fuel Commodity Price Forecasting, invited presentation, *Fuel's Paradise? Forecasting Lessons From Oil Markets*, Washington, April 2008.

International Energy Agency Expert Roundtable on Oil Price Formation, invited presentation on *Oil-Market Volatility: Assessing the Impact on Noncommercial Traders*, Paris, March 2008.

World Bank – GWU Global Finance Forum on Oil Price Volatility, Economic Impacts, and Financial Management, invited presentation on *Oil-Price Volatility: What Do We Know?*, Washington, March 2008.

International Association of Energy Economists ASSA Meeting, New Orleans, January 2008.

JS Herold Pacesetters Energy Conference, invited presentation on *How Does Political Risk Affect Oil & Gas Asset Values?*, Greenwich CT, September 2007.

Academy of International Business Conference on Emerging Research Frontiers, Miami, November 2007.

Does Speculation Cause Oil-Price Volatility?, invited presentation, Brattle Group Oil Markets Seminar, Washington, January 2007.

Academy of International Business Conference on Emerging Research Frontiers, San Diego, November 2006.

Does Speculation Cause Oil-Price Volatility?, invited presentation, Resources for the Future Breakfast Seminar Series, New York, June 2006.

Resources for the Future, Panel on Energy Security, invited presentation on *Oil-Price Volatility and Energy Security*, Washington, November 2005.

Academy of International Business Conference on Emerging Research Frontiers Business, Rotterdam, September 2005.

Academy of International Business, Québec, July 2005.

Academy of International Business, Stockholm, July 2004.

National Bureau of Economic Research Universities Research Conference, Developing and Sustaining Financial Markets, 1820-2000, Cambridge, December 2003.

International Association of Energy Economists Energy Policy Symposium, Energy (In)Security in the 21<sup>st</sup> Century, invited presentation, Cambridge, December 2003.

World Bank Group Extractive Industries Review, Middle East & North Africa Regional Consultation Workshop, invited presentation, Marrakech, June 2003.

United Nations Conference on Trade and Development, Annual African Oil and Gas Trade and Finance Conference, invited presentation, Luanda, Angola, May 2003.

World Oil Market Volatility: Report from the Front, Invited presentation to SBPM Board of Advisors meeting, Washington, May 2003.

Outlook for Oil Prices and US Energy Policy, invited presentation, Aramco, Dhahran, Saudi Arabia, April 2003.

Speculation and Volatility in Oil Futures Markets, invited presentation, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia, April 2003.

Emirates Center for Strategic Studies and Research, Annual Energy Conference, invited presentation, Abu Dhabi, October 2002

United Nations Conference on Trade and Development, Annual African Oil and Gas Trade and Finance Conference, invited presentation, Yaoundé, Cameroon, September 2002.

Research, invited presentation to SBPM Planning Retreat (with J. Glascock), Washington, May 2002.

Washington Area Finance Association, Washington, April 2002.

National Policy Association, Committee on New American Realities, panel on U.S. Energy Security: Traditional and Emerging Challenges, invited presentation, Washington, April 2002.

GW Center for Latin American Issues – Organization of American States Conference on South America: Promoting Integration and Development through Enhanced Energy Supply, moderator, Washington, March 2002.

Resources for the Future, Symposium on U.S. Energy Security: Traditional and Emerging Challenges, invited panelist Washington, January 2002.

MIT Center for Energy and Environmental Policy Research, Policy Workshop, invited presentation, Cambridge, December 2001.

*International Privatization Landscape*, invited presentation, U.S. Department of State International Visitor Program, "Privatization in the U.S.: Support Project for Armenia," Meridian House, Washington, November 2001.

Centro de Investigaciones sobre América del Norte, Universidad Nacional Autónoma de México, Conference on Los Nuevos Actores en el Espacio de América del Norte, invited presentation, México, July 2001.

Globalization, invited presentation to SBPM Leadership Retreat (with F. Lindahl), St. Michael's MD, June 2001.

International Association of Energy Economists International Meeting, Houston, April 2001.

Academy of International Business, Phoenix, November 2000.

Southern Economics Association, invited panel on "Volatility and Economic Growth in Oil-Exporting Countries," Crystal City VA, November 2000.

Financial Management Association, Seattle, October 2000.

World Bank workshop on "Price Volatility and the Macroeconomy," invited presentation, Washington, June 2000.

International Association of Energy Economists ASSA Meeting, Boston, January 2000.

Faculty Research in International Business, presentation to GW vice presidents and Oliver Carr, December 1999.

Academy of International Business, Charleston, November 1999.

South Dakota International Business Conference, Rapid City, October 1999.

ESAI/Johns Hopkins Executive Conference, invited presentation, Washington, March 1999.

Invited Panelist, Low Oil Prices, National Public Radio, Washington, February 1999.

Washington Area Finance Association, discussant, Washington, October 1998.

International Association of Energy Economists North American Meeting, Albuquerque, October 1998.

GW Institute for Global Management & Research Conference on Challenge to the Global Oil and Gas Industry: Competition, Commercialization, Privatization, invited presentation, Washington, October 1998.

Speculators in Financial Markets: The Case of Hedge Funds, invited presentation, U.S. Department of State, Washington, September 1998.

*Energy and Finance*, plenary session organizer and chairman, International Association of Energy Economists International Meeting, Québec, May 1998.

Global Finance: Focus on Emerging Markets, invited presentation to University of Chile Advanced Management Program, Washington, January 1998.

United States International Trade Commission, Symposium on the Economic Implications of Liberalizing APEC Tariff and Nontariff Barriers to Trade, discussant, Washington, November 1997.

International Association of Energy Economists North American Meeting, San Francisco, September 1997.

Canadian Economics Association, St. John's, June 1997.

Cliometrics Society, Toronto, May 1997.

Johns Hopkins University School of Advanced International Studies, SAIS-AGIP Energy Conference, invited presentation, Washington, May 1997.

Global Finance: Focus on Emerging Markets, University of Puerto Rico International Business Development Program, invited presentation, San Juan, March 1997.

SMU Maguire Oil and Gas Institute Energy Policy Symposium, invited presentation, Dallas, March 1997.

Global Finance: Focus on Emerging Markets, invited presentation to University of Chile Advanced Management Program, Washington, January 1997.

MIT Center for Energy and Environmental Policy Research, Policy Workshop, invited presentation, Cambridge, November 1996.

Financial Management Association, New Orleans, October 1996.

Academy of International Business, Banff, September 1996.

Multinational Finance Society, Washington, June 1996.

Association of Financial Economists, discussant, San Francisco, January 1996.

Journées du GREEN, invited presentation, Québec, October 1995.

Financial Management Association, New York, October 1995.

IAEE-Alaska, conference on Should Oil States Hedge Oil Revenues?, invited presentation, Anchorage, October 1995.

Petroleum Fiscal Dependence, invited presentation to Institute of Social and Economic Research, University of Alaska, Anchorage, October 1995.

International Association of Energy Economists International Meeting, panel chair, Washington, July 1995.

Conference on Derivatives and Systemic Risk, Washington, April 1995.

Association of Environmental and Resource Economists, Washington, January 1995.

Academy of International Business, Boston, November 1994.

*International Competitiveness*, invited presentation to Phillips Petroleum Advanced Management Program, Denver, September 1994.

American Economics Association, Boston, January 1994.

Crude Oil Options: Volatility, Risk Management, and Forecasting, invited presentation, MIT Center for International Studies, Cambridge, December 1993.

*Economics and Environment: Friends or Enemies?*, invited presentation to "Ciéncias Ambientales," Cursos de Verano, Universidad Complutense, Almería, Spain, July 1993.

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History of Oil, invited presentation to USAID Energy Training Program on Oil Commodities and Futures Market Development, New York Mercantile Exchange, July 1993.

Association of Environmental and Resource Economists, Workshop on International Aspects of Environmental Policy, Flat Rock, North Carolina, June 1993.

USAID Energy Training Program on Oil Commodities and Futures Market Development, invited lecture series, Moscow, May 1993.

Oil Futures Markets in the Gulf Crisis, invited presentation, MIT Center for International Studies, Cambridge, April 1993.

International Trade and Finance Association, Anaheim, January 1993.

IXe Colloque International d'Économie Petrolière, invited presentation, Québec, October 1992.

Journées du GREEN, discussant, Québec, September 1992.

Short-Term Crude Oil Issues: Risk Management and Pricing, invited presentation to NORAS (Norwegian Research Council for Applied Social Science), Cambridge, September 1992.

National Bureau of Economic Research Summer Institute, Cambridge, July 1992.

Canadian Economics Association, Charlottetown, June 1992.

International Association of Energy Economists International Meeting, Tours, May 1992.

Eastern Finance Association, Tampa, April 1992.

Academy of International Business, San Antonio, March 1992.

Centro de Investigaciones sobre Estados Unidos de América, UNAM, Conference on México-Estados Unidos: Energía, Medio Ambiente y el Acuerdo de Libre Commercio, invited presentation, México, January 1992.

Origins of Natural-Resource Markets: Oil Futures Trading in the 19<sup>th</sup> Century, invited presentation, University of Pennsylvania Center for Energy and the Environment, Philadelphia, January 1992.

International Trade and Finance Association, New Orleans, January 1992.

Futures Markets and Oil Price Stability: An Historical Perspective, invited presentation to IAEE-New England, Cambridge, November 1991.

Journées du GREEN, invited presentation, Québec, October 1991.

Academy of International Business, Miami, October 1991.

Senter for Petroleumsøkonomi, Chr. Michelsens Institutt, invited presentations, Bergen, Norway, August 1991.

Repsol-Harvard Seminar, invited presentation, Segovia, June 1991.

Centre International de Recherches et d'Information sur l'Économie Publique, Sociale, et Coopérative, Conference on Public vs. Private Enterprise, Liège, Belgium, April 1991.

Academy of International Business, Columbia, South Carolina, March 1991.

Energy Derivatives and Their Correlations to the Equity Markets, invited presentation, National Option and Futures Society, New York, March 1991.

American Finance Association, Washington, December 1990.

European International Business Association, Madrid, December 1990.

Journées du GREEN, invited presentation, Québec, November 1990.

The Oil Crisis of 1990, invited presentation, Brandeis Club of New Jersey, November 1990.

International Economics Association, Conference on Énergie et Développement Économique du Tiers-Monde: Problèmes et Politiques, invited presentation, Québec, October 1990.

Academy of International Business, Toronto, October 1990.

International Association of Energy Economists North American Meeting, Ottawa, October 1990.

The Crisis in the Gulf, invited panelist, Brandeis University, September 1990.

*Natural Resource Depletion and National Income Accounting*, invited presentation to the Harvard Institute for International Development Workshop on Macroeconomic and Agricultural Policy, July 1990.

International Association of Energy Economists International Meeting, Copenhagen, June 1990.

Canadian Economics Association, Victoria, June 1990.

### **Professional**

Service

Associate Editor, Energy Economics, 2001-2006.

Editorial Board, Journal of Energy Finance and Development, 1995-2000.

Finance Track Chair, Academy of International Business 2002 Annual Meeting.

Conference Program Committee, International Association of Energy Economists North American Meeting 1996, International Meeting 1995.

Referee, Energy Journal, Energy Studies Review, Journal of Economic Theory, Journal of Environmental Economics and Management, Journal of Futures Markets, Journal of International Business Studies, Journal of Law and Economics, National Science Foundation, National Tax Journal, Operations Research, Quarterly Journal of Economics, Review of Economics and Statistics.

Book reviewer, Journal of Policy Analysis and Management, 1982-1985.

Member, Academy of International Business, American Economics Association, American Finance Association, Association of Environmental and Resource Economists, Cliometric Society, European Association for Research in Industrial Economics, Financial Management Association, Institute of Petroleum (London), International Association of Energy Economists, Royal Economic Society.