



Shawkat Hammoudeh , Ph.D.

Professor

Economics

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At Drexel Since 1989

Education

Post Graduate, Finance, Drexel University, (1989-90)

Ph.D., Economics, minor in Mathematics, University of Kansas (1980)

Dissertation Title: "Optimal Oil Pricing Policy for Saudi Arabia"

M.A., Economics, University of Kansas (1974)

B.A., Economics, University of Baghdad (1969)

Selected Publications

Refereed Journal Articles

Hammoudeh, S. and H. Li, "Sudden Changes in Volatility in Emerging Markets: The case of the Gulf Arab Stock Markets," *International Review of Financial Analysis*, Vo. 15 # 4 (2006).

Hammoudeh, S. and H. Li, " Oil Sensitivity and Systematic Risk in Oil-Sensitive Stock Markets ," *Journal of Economics and Business* Vol. 57, 1-21 (2005)

Ewing, B., S., Hammoudeh and G. Covarrabias, "Volatility of the UK Basis: Persistence and Sudden Changes," *Finance Letters*, Vol. 3 (November 2004).

Hammoudeh, S. and H. Li, "Risk Return Relationships in Oil-Sensitive Stock Markets," *Finance Letters*, Vol. 2 (August 2004).

Hammoudeh, S. and E. Aleisa "Dynamic Relationships Among GCC Stock Markets and NYMEX Oil Futures," *Contemporary Economic Policy*. Vol. 22, no.2 (April 2004), 250-269.

Hammoudeh, S., S. Dibooglu and E. Aleisa, "Relationships among US Oil Prices and Oil Industry Equity Indices," *International Review of Economics and Finance*, Vol. 13, no.3 (2004).

Hammoudeh, S. and H. Li, "The Impact of the Asian Crisis on the Behavior of US and International Petroleum Prices," *Energy Economics*, Vol. 26, no.1 (January 2004), 135-160.

Hammoudeh, S., H. Li and B. Jeon, "Causality and Volatility Spillovers Among Petroleum Prices of WTI, Gasoline and Heating Oil in Different Locations," *North American Journal of Economics and Finance*, 14 (1) (January 2003), 89-114.

Tang, L. and S. Hammoudeh, "An Empirical Exploration of World Oil Price Under the Target Zone Model," *Energy Economics* 24(6), (November 2002), 525-649.

Hammoudeh, S. and E. Aleisa, "Relationship between Spot/Futures Prices of Crude Oil. and Equity Indices for the Oil-Producing Economies and US Oil-Related Industry," *Arab Economic Journal*, Vol. 11 no. 27 (April 2002), 37-62.

Hammoudeh, S., "Oil Pricing Policies in a Target Zone Model," *Research in Human Capital and Development*, Vol. 11 B, 199, (1997), 497-513.

Hammoudeh, S., "Oil Target Zones, Mean Reversion and Zone Readjustments," Southern Economic Journal, Vol. 62 no. 2, (April 1996).

Hammoudeh, S. and V. Madan, "Expectations, Target Zones and Oil Price Dynamics," Journal of Policy Modeling, Vol. 17 no. 6, (1996), 597 - 613.

Hammoudeh, S. and V. Madan, "Asymmetric Target Zones and Oil Price Dynamics," Southwestern Economic Review, Vol. 22 no. 1, (1995), 87 - 97.

Hammoudeh, S. and V. Madan, "Escaping the Tolerance Trap: Implications of Rigidity in OPEC's Quantity Adjustment Mechanism," Energy Economics, Vol. 16 no.1, (1994), 3- 8.

Hammoudeh, S. and V. Madan, "The Dynamic Stability of OPEC's Oil Pricing Mechanism," Energy Economics, Vol. 14 no.1, (1992), 66-71.

Hammoudeh, S. and V. Madan, "Market Equilibrium of OPEC's Oil Pricing Mechanism," Journal of Energy and Development, Vol. 16 no.1, (1990).

Hammoudeh, S., "The Oil Market Situation: The Impact of Oil Exports on Economic Development of Oil Exporting Countries," Journal of Energy and Development, Vol. 13 no.2, (1989), 297-324.

Hammoudeh, S., Salman and S. Ayyash, "Optimal Allocation of Pure Photovoltaic and Conventional Electricity Supplied to a Constant Demand Load," Energy Systems and Policy, Vol. 10 no.3, (1987).

Hammoudeh, S. and S. Ayyash, "Economic Analysis for Energy Management for Cooling Systems in Kuwait," Energy, Vol. 10 no.6, June (1985).

Hammoudeh, S., S. Ayyash and R.K. Suri, "Economic Analysis of Conventional and Solar Cooling Systems in Kuwait," Energy Economics, October (1984).

Hammoudeh, S., "The Optimal Future Oil Price Behavior of OPEC and Saudi Arabia: A Survey of Optimization Models," Energy Economics, Vol. 1 no.2, July (1979), 156-166.

Refereed Articles in Arabic

Hammoudeh, S., "The Booming and Declining Oil Export Sector: The Impact on the Economies of the Arab Oil Exporting Countries," Oil and Arab Cooperation, Vol. 23 no.2, (1987).

Hammoudeh, S., "The Use of Macroeconomic Models in Building Scenarios for Inter-Arab Economic Cooperation," Oil and Arab Cooperation, Vol. 12 no.3 & 4, September (1986).

Hammoudeh, S., S. Al-Kudsi and N. Eid. " Kuwait's Food Security," Journal of the Gulf and Arabian Peninsula Studies, Vol. 12 no.46, April (1986).

Papers Under Referee Review

Hammoudeh, S, and S. Al-Gudhea, 2005. "Return, Risk and Global factors in Saudi Equity Sectors, " Journal of Emerging Markets (*under first round review*).

Ewing , B., S. Hammoudeh and M. Thompson, 2005. "Asymmetry in Petroleum Futures and Spot Prices," The Energy Journal , 2004 (*under first roundreview*).

Hammoudeh, S. and K. Choi , 2005 " Behavior of the GCC Stock Markets and Impacts of the US Oil and Financial Markets," Research on International Finance and Business (*under second round review*)

Choi, K and S. Hammoudeh, 2004 " Volatility Regime Switching in the Gulf Arab Stock Markets," Finance Letters (*under first round review*)

Hammoudeh, S., Ewing, B. Zhao, G, 2004. "Oil and Natural Gas Sensitivity, Asymmetry, Systematic Risk and Skewness in the Russian Stock Market," Comparative Economic Systems (*under first round review*)

Malik, F. and S. Hammoudeh, 2004. "Volatility Transmission in the Oil, US and GCC Equity Markets," International Review of Economics & Finance (*under second round review*).

Hammoudeh, S. and H. Li."Country and Industry Volatility Persistence and Transmission in the Oil and Oil sensitive Equity Markets," Applied Economics (*under first round review*).

Hammoudeh, S. and H. Li. "Relationships between Economic Growth, Exports, Imports and External Debt for Oil-Exporting and-Importing, Developing Countries," Journal of Development Economics," (*under first round review*).

Eleisa, E. and S. Hammoudeh " Sources of Macroeconomic Fluctuations in the GCC Area: Implications for an Optimum Currency Area " Journal of Macroeconomics, (*under first round review*)

Hammoudeh, S. " Oil Target Zone Price and Zone Adjustments: Anecdotal Evidence and Theory," Canadian Journal of Economics (*under first round review*).<

Unrefereed Papers

Hammoudeh, S., E. Eleisa and R. Al Nsour. "Sensitivity of the Stock Markets of the GCC Countries to Oil Spot and Futures Prices: Parts I and II," Economic and Financial Bulletin, National Bank of Abu Dhabi, UAE, November and December , 2002.

Hammoudeh, S. and E. Eleisa. "Links and Volatility Transmission Among the GCC Stock Markets and the NYMEX Oil prices "Topics in Middle Eastern and North African Economics, *Electronic Journal, Vol. 5, 2003, Middle East Economic Association and Loyola University Chicago, September 2003.*
<http://www.luc.edu/publications/academic/>

Proceedings/Conference Presentations

Hammoudeh, S. and F. Malik. "Volatility Transmission in the Oil, US and GCC Equity Markets," paper presented at The Allied Social Sciences–Middle East Economic Association conference San Diego, January 4-6, 2004.

Hammoudeh, S. "Impacts of NYMEX Oil futures, Dow Jones, US T-Bill Rate on GCC Stock Markets," Paper presented at The Western Economic Association International Conference, July 2003.

Hammoudeh, S., and E. Aleisa. " Dynamic Relationships among GCC Stock Markets and NYMEX Oil Futures Dynamic Relationships," Paper presented at The Allied Social Sciences Conference, January 2003, Washington D.C.

Hammoudeh, S., S. DiBooglu and E. Aleisa. "Dynamic Relationships, Day Effects and Spillover Effects for the US Oil Market and the S&P Oil Sector Stock Market Indices," Paper presented at The Western Economic Association International Conference, July 2002, Seattle, Washington.

Hammoudeh, S., and E. Eleisa. " Links and Volatility Transmission Between NYMEX Oil Futures and the GCC Stock Market Indices," Paper presented at The Western Economic Association International Conference, July 2002, Seattle, Washington.

Hammoudeh, S. "Empirical Investigation of A Cartel's Optimal Policy in Presence of Noncompliance: the Case of OPEC," Paper presented at The Western Economic Association International Conference,, July 2001, San Francisco, California

Hammoudeh and L. Tang. "World Oil Price Under the Target Zone Model: Theory and Empirical Investigation," Paper Presented at the Western Economic Association International Conference,, July 2001, San Francisco, California.

Hammoudeh. "World Oil Price Under the Target Zone Model: theory and Empirical Investigation," Paper Presented at International Association for Energy Economics , September 2000, Philadelphia, PA.

Hammoudeh, S. "Noncompliance, Shocks and Optimal Policy in OPEC's Decision Making," Paper presented at The Western Economic Association International Conference, 2000, Vancouver, Canada.

Hammoudeh, S. "Oil Target Zones and Target Price Readjustment: Anecdotal Evidence and Theory," Paper presented at The Western Economic Association International Conference, 1999, San Diego, California.

Hammoudeh, S. "Oil Target Zones and Target Price Readjustment," Paper presented at The Western Economic Association International Conference, 1998, Lake Tahoe, Nevada.

Hammoudeh, S. "Shock signals and the Oil Principal-Agent Problem," Paper presented at The Western Economic Association International Conference, 1997, Seattle, WA.

Hammoudeh, S. "Sensitivity Of Target Exchange Rates at the Upper bound," Paper presented at The Western Economic Association International Conference, 1996, San Francisco, CA.

Hammoudeh, S. and V. Madan. "Asymmetric Target Zones and Oil Price Dynamics," presented at the International Symposium on Economic Modeling, June 1994, Washington, D.C.

Hammoudeh, S. and V. Madan. "Expectations, Target Zones, and Oil Price Dynamics," presented at the International Symposium on Economic Modeling, June 1993, Athens, Greece.

Hammoudeh, S. and V. Madan. " Escaping the Tolerance Trap: Implications of Response Rigidity," presented at the Western Economic Association Meetings, July 1992, and at the International Symposium on Economic Modeling, August 1993, Gutenberg University, Sweden.

Hammoudeh, S. and V. Madan. " Market Equilibrium of OPEC's Oil Pricing Mechanism," presented at the Pennsylvania Economic Association Meetings, June 1992, Indiana, Pennsylvania.

Hammoudeh, S. and V. Madan. " The Dynamic Stability of OPEC's Oil Pricing Mechanism," presented at the International Symposium on Economic Modeling, July 1991, London, U.K.

Hammoudeh, S. "Forecasting Energy Demand in the Arab Countries," Paper presented at the Fourth Arab Energy Conference, March 1988, Baghdad, Iraq.

Hammoudeh, S. "The Oil Market Stability: The Impact on the Economic Development of the Oil Exporting Countries," Paper presented at the symposium: The Medium and Long Term Energy Outlook, March 1987, Luxembourg.

Hammoudeh, S. "Booming and Declining Export Sector: The Dutch Disease and the Reverse Dutch Disease in the Arab Oil Exporting Countries," Paper presented at the Training Programs offered by the Arab Planning Institute, on the Problems of Planning Foreign Trade and on the Planning of Wages and Prices, November-December 1986, Kuwait.

Hammoudeh, S., S. Ayyash and R.K. Suri. "Assessment Criteria for Solar Cooling Systems," Paper presented at the Proceedings of the First International Arab Solar Energy Conference, 1983 Pergammon Press.

Hammoudeh, S. "The Arab Macroeconomic and Energy Demand Models of the Interdependence System," Paper presented at the Arab-European Technical Seminar on the Interdependence Project, January 1986, Kuwait.

Refereed Books

Krass., I. and S. Hammoudeh. The Theory of Positional Games with Application in Economics. New York: Academic Press, 1981.

Book Review

"Land Reclamation and Development" Published in Southern Economic Journal, April, 1997.

Awards

Received Bennet S. LeBow College of Business's Summer Research Grant "Dynamic Relationships among Petroleum Prices and Oil-Sensitive Stock Markets," summer 2002.

Received Bennet S. LeBow College of Business's Summer Research Grant "Empirical Exploration of the World Oil Price Under the Target Zone Model," summer 2001.

Received Bennet S. LeBow College of Business's award for Excellence in Service, summer 1999.

Received COBA Summer Research Mini Grant, "Target Zones and Target Price Readjustment," summer 1998.

Invited with full accommodation by the Arab Planning Institute - Kuwait to present a paper at International Conference on Evaluation of Macroeconomic Models, Tunisia, June 12-14, 1995.

Invited with full accommodation by The Cooperation Council for the Arab States of the Gulf-Saudi Arabia to participate in a Workshop on Modeling Economic Integration Efforts for the Gulf Cooperation Council (GCC) Member States, Kuwait, May 23-24, 1995.

Received the Peter C. Stercho Award for Excellence in Research in Economics, 1994.

Received the Peter C. Stercho Award for Excellence in Service to the Department of Economics, 1993.

Invited with full accommodation and a Grant by the Arab Planning Institute - Kuwait to Participate in the Experts Meeting on the Arab Macroeconomic Models, Kuwait, May 31- June 1, 1993.

Professional Experience

Academic

Drexel University, Department of Economics, Associate Professor, 1990 - Present
University of Kansas , Department of Economics, Teaching Assistant, 1977 - 1978

B. Industry

**Organization of Arab Petroleum Exporting Countries (OAPEC) Kuwait
Senior Economist, 1983-1988**

Forecasted and analyzed policy issues related to the petroleum industry, the GNP and its components for OAPEC countries.

Analyzed issues concerning economic cooperation between Arab/European countries.

Conducted presentations to senior officials in the Middle East and Europe.

Supervised the building of macroeconomic models for ten Arab countries (Algeria, Egypt, Iraq, Kuwait, Libya, Morocco, Yemen A.R., Saudi Arabia, Syria and U.A.E.)

Constructed a macroeconomic model for Jordan, and three area-condensed forms comprised of the Arab models.

Participated in the two world-wide projects:

Project 1: Refining and Petrochemical Model of the Euro-Arab Dialogue, a joint large-scale project between the League of Arab States and the EEC.

Included developing macroeconomic models, energy demand models, energy pricing models, petrochemical demand models, refinery and petrochemical production models, and a global trade model. These models, built for the world divided into eight areas, are linked together through the global trade model. Responsibility: Econometrician of the steering committee, with specific responsibility for building and simulating the macro models, energy demand and pricing models, and the global trade model.

Project 2: The OAPEC/ENI Interdependence Model, a joint large-scale project between OAPEC and the Italian Ente Nazionale Idrocarburi (ENI) in Rome, Italy.

Project utilized a system of models including a world trade model, a world financial model, macroeconomic models for 6 OECD countries, and macroeconomic models for 14 Arab countries. The project was designed to simulate the effects of economic cooperation among those countries on their national economies.

**Kuwait Institute for Scientific Research (KISR), Kuwait
Associate Research Scientist, 1981-1983**

Applied econometric modeling to specific aspects of the Kuwait economy:

Demand for energy in Kuwait, a system of simultaneous equations describing the demand for energy by fuel type and economic sector, and estimated by the 2SLS-PC technique.

National food security requirements, including an econometric model of domestic consumption and production functions to forecast import requirements by supplying source, and an optimization model using LP and mixed integer programming techniques to derive the "safest" food baskets during a crisis.

Demand for new telex machines in the Arab countries, a market study based on the stock adjustment model.

Economic assessment of potential solar cooling systems for Kuwait.

Conducted feasibility studies and product assessment for other research divisions, trained recent university graduates in the techniques of quantitative economic analysis.

Ministry of Foreign Affairs Jordan, Diplomatic Attaché, 1972 – 1975

Consulting

Swartz, Campbell & Detweiler Law Firm, Equivalency of Economic Earning Capacities for Jordan and the United States, Philadelphia, PA, Summer 2000.

UN Development Program, Amman - Jordan, 1988-89 & 1991

Participated in building a macroeconomic model for the Jordanian economy and advised Jordanian officials on matters related to *energy policy* and *economic planning*.

Project- The model simulates the impacts of fiscal policy, exchange rate policy and energy investment decisions on economic growth, substitution between factors of production, government budget, and balance of payments. The model uses the SAM-TV approach and has blocks for production, intermediate consumption, final consumption, prices and foreign trade. The production block uses restricted variable cost approach.