KATERYNA V. HOLLAND

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ACADEMIC EXPERIENCE

Purdue University, Krannert School of Management Assistant Professor of Finance

August 2013-Present

PROFESSIONAL INTERESTS

Research: Government Ownership, International Finance, Corporate Finance, Energy, Risk Management

Teaching: Corporate Finance, International Finance

EDUCATION

| Ph.D.; Finance, University of Oklahoma, Price College of Business | May 2013 |
|---|-----------|
| MBA (GPA: 4.0); University of Oklahoma, Price College of Business | May 2001 |
| Price Scholar Program; New York University, Stern School of Business | Aug. 2000 |
| BS; Management Information Systems (GPA: 4.0), University of Science and Arts of Oklahoma | 1999 |

PUBLICATIONS

"Government Ownership and the Cost of Debt: Evidence from Government Investments in Publicly Traded Firms" (with Ginka Borisova, Veljko Fotak, and William Megginson), <u>Journal of Financial Economics</u>, October 2015, vol. 118(1), 168-191

"Bank Nationalizations: A History of the Credit Crisis of 2007-09," <u>Privatization Barometer 2008 Report,</u> February 2009

"TARP Participation and Exit for U.S. Banks," Privatization Barometer 2009 Report, March 2010

WORKING PAPERS

The Wealth Effects of Government Investment in Publicly Traded Firms, 2016.

Abstract: I study shareholder wealth effects associated with different types of government investors in a sample of 2,118 government equity investments spanning 71 countries between 1987-2013. The results indicate that investors differentiate their expectations of government investment targets based on the government investor's implied level of political interference. Government investors that are most likely to have political motivations have negative value effects on target firms, while other government investors have positive effects, similar in size to other non-government investors. The negative effects are stronger for investments in domestic firms, in more regulated industries, by left-wing governments, and for large share purchases

Arbitrage and the Financial-Physical Nexus in Commodity Markets (with Louis Ederington, Chitru Fernando, Scott Linn and Thomas Lee), 2016, submitted to the **Review of Financial Studies**

Abstract: We examine inventories as a link between financial futures and physical spot prices via cash-and-carry arbitrage. In crude oil markets we document inventory variations in response to arbitrage opportunities presented by futures prices. Therefore, futures prices, whether influenced by fundamentals or financialization, affect physical prices via arbitrage-related inventory movements. Such movements happen primarily at the NYMEX delivery point but not at other storage locations and they tend to stabilize crude oil markets. We provide an extension to the theory of storage by documenting that that iinventories respond not only to contemporaneous but also lagged futures spreads, due to arbitrageurs contracting ahead.

Arbitrage and Its Physical Limits (with Louis Ederington, Chitru Fernando, and Scott Linn)

Abstract: We extend the literature on the limits of arbitrage to the realm of physical limits to arbitrage. Our study is based on the US crude oil futures market taking explicit account of the physical storage requirements that enable the no-arbitrage condition in this market. We find evidence of both temporary and long-term violations of the no-arbitrage conditions, as evidenced by deviations of the futures-spot spread beyond theoretical bounds. When crude oil storage levels are well below available storage capacity, temporary violations of the upper no-arbitrage boundary occur but tend to be eliminated within a few days. However, as the amount of oil in storage approaches available capacity, the price adjustment process slows and violations of the upper no-arbitrage limit persist. We find evidence of temporary, but not long-term, violations of the lower no-arbitrage bound indicating little evidence of physical limits on reverse cash and carry arbitrage and also find no evidence of financial limits to arbitrage in this market. Our evidence indicates that arbitrage impacts the spot price more than the futures price. Our findings highlight the importance of accounting for physical arbitrage limits in the pricing of commodity futures.

The Behavior of Price Discovery in the Crude Oil Spot and Futures Markets (with Louis Ederington, Chitru Fernando, and Scott Linn)

Abstract: Despite a considerable literature, the question of whether price discovery in the oil markets occurs in the futures or the spot market remains contentious. Additionally, the literature has largely ignored the possibility that the futures-spot relation could change over time. We study the behavior of price discovery in the crude oil spot and futures markets to determine which market contributes most to oil price discovery and whether changes have occurred since the increased use of commodity futures as portfolio investments. We study both the WTI and the Brent market and examine two periods for each market demarcated by 2005 when commodities experienced a rapid growth as investment vehicles. We find that the futures market is the primary locale for price discovery both before and after the demarcation for Brent, and also for WTI when analyzing the nearby contract. In contrast, during the post-2005 period, for longer-dated contracts the contribution in the WTI market was roughly split or the spot market was dominant. Our findings suggest that a shift in the price discovery process occurred during the second half of the sample period for WTI, indicating that the futures-spot relation may not be stable over time as prior research has assumed. One possible explanation for the observed switch for WTI is the higher cost of futures market price discovery in the post-2005 due to the increased volume and noise in the futures market associated with the growth of financial trading in oil.

WORK IN PROGRESS

Labor Force Restructuring and M&A Gains (with Stefano Rossi)

Executive Compensation and Production Clauses (with Huseyin Gulen and William O'Brien)

Target Announcement Returns (with Yeejin Jang)

Expropriations and M&A (with Veljko Fotak and Haekwon Lee)

Government Customers and M&A (with Jared Stanfield)

Do Customers Influence Risk-Management Choices of Firms? (with Jared Stanfield)

Ownership and Risk-Management: Evidence from the Oil and Gas Industry (with Yeejin Jang)

Hedge Accounting Restatements and Unrealized Derivative Gains and Losses (with Jonathan Black and Patrick Hoffman)

Government Ownership and Competition: How Do Rivals React When Governments Purchase a Stake in Their Competitor?

Issuance and Implied Volatility (with Louis Ederington)

TEACHING

Spring 2017: Advanced Corporate Finance (MGMT413), Purdue University.

Spring 2016: Advanced Corporate Finance (MGMT 413), Purdue University: 4.7/5.0

Fall 2015: Doctorate Level Corporate Finance (MGMT 618), Purdue University 4.9/5.0

Spring 2015: Advanced Corporate Finance (MGMT 413), Purdue University: 3.9/5.0, 4.2/5, 4.7/5.0

Fall 2013: Advanced Corporate Finance (MGMT 413), Purdue University. Score: 4.3/5.0, 4.8/5.0

Summer 2011: Investments (FIN 4103/5103), University of Oklahoma. Score: 4.75/5.00

Fall 2010: Business Finance (FIN 3303), University of Oklahoma. Score: 4.46/5.00

Spring 2008-Fall 2007: Corporate Financial Management (MBE 322), Virginia Wesleyan College

Spring 2007-Summer 2007: Finance and Investing (MGMT 333), Embry-Riddle University (Norfolk)

Fall 2005: Risk Management and Derivatives, California State University, Fresno

PROFESSIONAL ACTIVITIES

Invited Presentations (*presented by co-author):

2016 University of New Sought Wales, Sydney, Australia

2014 Indiana Conference, University of Oklahoma

2013 University of Oklahoma, Northeastern University, Clemson University, Kansas State University, Texas Tech University, Louisiana State University, University of Minnesota, Purdue University, King Fahd University of Petroleum and Minerals*, French Finance Association*

2012 University of Oklahoma Seminar Series (Norman, OK)

2012 Energy Information Administration, EIA, Project Presentation (Washington, D.C.)

2009 University of Oklahoma Seminar Series (Norman, OK)

Presentations at Professional Meetings:

Financial Management Association, FMA 2012 (Doctoral Student Consortium Special Session Presentation), 2013, 2014

Energy and Commodity Finance Conference 2016 (Paris)

Energy Information Administration, EIA, Project Presentation 2012, 2013 (Washington, D.C.)

European Finance Association, EFA 2012 (Copenhagen, Denmark)

11th Darden Risk Management Conference 2012 (Charlottesville, VA)

Southwest Finance Symposium 2011 (Tulsa, OK)

Fondazione Eni Enrico Mattei, FEEM 2010 (Milan, Italy)

Discussions:

American Economic Association, AEA/AFA: 2014 (Philadelphia, PA), 2016 (San Francisco, CA) Meeting of Financial Management Association, FMA: 2016 (Las Vegas, NV), 2015 (Orlando, FL), 2014 (Nashville, TN), 2013 (Chicago, IL), 2010 (New York, NY)

Meeting of Midwest Financial Association, MFA: 2017 (Chicago, IL)

Program Selection Committee:

FMA 2016 (Mergers and Acquisitions), MFA 2017 (International Finance; Mergers and Acquisitions)

Referee:

Journal of Financial and Quantitative Economics Journal of Corporate Finance

Professional Memberships:

American Finance Association (AFA), European Finance Association (EFA), Financial Management Association (FMA)

AWARDS

Outstanding and Distinguished Teacher Fall 2015 PhD Module (Purdue University)

Financial Management Association (FMA) Doctoral Student Consortium Paper Presenter/Participant, 2012

Graduate Student Teaching Excellence Award (Price College award to a single student), 2012

Energy Information Administration (EIA) Research Grant, 2011-2012

Business Energy Solutions Center Research Fellowship, University of Oklahoma (Price), 2011-2012

The American Finance Association (AFA) Travel Grant, 2011

Fondazione Eni Enrico Mattei (FEEM) Fellow, 2008-2010

Doctoral Student Summer Research Fellowship, University of Oklahoma (Price), 2009-2010

Graduate Foundation Fellowship, University of Oklahoma, 2008-2012

Michael F. Price Distinguished Graduate Student Scholarship, University of Oklahoma (Price), 1999-2001

Outstanding Graduate Award, University of Science and Arts of Oklahoma, 1999

Women's Tennis Player of the Year Award, University of Science and Arts of Oklahoma, 1996-1999

Freedom Support Act (FSA) Scholarship, U.S. Congress, 1995-1996

NON-ACADEMIC POSITIONS

Dec 2001- Dec 2003: Forward Power Trader for the North East (NE) Region, Williams Energy (Tulsa, OK)

Job Responsibilities: I managed the risks of the NE power (electricity) forward position and hedged the peak, off-peak, gas, basis and capacity (UCC) positions of the power plants in the NE. I oversaw speculative and spread books (PJM and NY regions) which included outright positions, time / regional spreads and options, published observed OTC price and volatility curves for risk management and coordinated position rolls to physical daily traders in situations of limited forward liquidity. Routine transaction size was over \$500K, subject to \$10MM VAR.

May 2001- Dec 2001: Power Market Analyst, Williams Energy (Tulsa, OK)

Job Responsibilities: In providing support to power traders, I evaluated historical price and volatility spreads between different regions using various statistical techniques and presented research and FERC legislation updates. In order to improve communication between the research, trading and risk management departments I created databases and Excel templates that allowed traders to track implied heat rates, new generation, outage and deal information by region, date, and company, as well and evaluate their positions and risk.

May 2000-Aug 2000: Internship in the Capital Markets Credit Division (Broker Dealers Group), Salomon Smith Barney/Citigroup (New York, NY)

Job Responsibilities: I evaluated the credit risk exposure for various broker dealers, investment advisors and funds, money managers, insurance companies and municipalities, as well as analyzed the limits, market-to-market and potential exposure for different kinds of financial products (fixed income, equity, derivatives,etc.)

Last updated September, 2016