# J.P. Morgan Center for Commodities at the University of Colorado Denver Business School



# **International Commodities Symposium Summary**

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Over 80 international commodities researchers and practitioners attended the J.P. Morgan Center for Commodities' (JPMCC's) inaugural "New Directions in Commodities Research" international symposium in August 2017 to discuss critical thinking and new research related to commodities. The 2017 symposium took the place of the JPMCC's annual Research Council meeting. Professor Graham Davis, Ph.D., of the Colorado School of Mines co-organized the conference with Dr. Ajeyo Banerjee, Ph.D., of the University of Colorado Denver Business School. The agenda for the conference included keynote speakers, speaker sessions organized by academic and practitioner members of the Center's Research Council, and competitive academic sessions selected by the conference's Technical Committee consisting of Research Council members and which was chaired by Professor Davis. There were two concurrent sessions throughout the symposium. The conference's lead sponsor was the CME Group Foundation. The conference also benefitted from sponsorship by the Payne Institute for Earth Resources and the Chartered Alternative Investment Association (CAIA).

The 2017 symposium had speakers and participants from a broad set of industries, regulatory agencies, and research institutions, including oil and natural gas companies, automobile manufacturers, renewable energy companies, U.S. national laboratories, universities, the Federal Reserve Bank, the Commodity Futures Trading Commission, financial institutions, exchanges, and market research institutions. The broad range of topics covered by the conference included renewable energy finance, raw materials, shipping finance, macroeconomics, and China's economic supply side reform.

We are fortunate that three of the conference's presenters have summarized their 2017 presentations for the *GCARD*. In the Winter 2017 issue, Ms. Jodie Gunzberg, CFA, summarized her presentation on "Chinese Economic Growth and Commodity Performance." Ms. Gunzberg is Managing Director and Head of U.S. Equities at S&P Dow Jones Indices and also serves a member of the *GCARD*'s Editorial Advisory Board. In the current issue of the *GCARD*, Professor Lutz Kilian, Ph.D., of the University of Michigan, Ann Arbor, co-authored an article based on his keynote presentation on oil prices and the economy; Professor Kilian's *GCARD* article is entitled, "Why Did the 2014-16 Oil Price Decline Not Create a Surge in Economic Activity?" He is also a member of the JPMCC's Research Council. Also, in this issue of the *GCARD*, Dr. Martin Stuermer, Ph.D., of the Federal Reserve Bank of Dallas summarized his symposium lecture on commodity price booms and busts; Dr. Stuermer's *GCARD* article is entitled, "Demand Shocks Fuel Commodity Price Booms and Busts."



In this report, we successively summarize four additional presentations from the August 2017 conference.

#### "Commotion, Complexity and Competition: Interesting Times in the Rare Earth Business"

Dr. Alex King, Ph.D., Director of the Critical Materials Institute (CMI) in Ames, Iowa, opened the conference with a discussion of rare earth metals, which are critical materials that have national security implications and which are an often overlooked area of research in commodities. The CMI researches technical methods to extract, refine, and separate rare earth metals from each other. Demand for rare earth elements continues to increase with use in cell phones, hard drives, head phones, LEDs, CFLs, televisions and in magnets used in electric vehicles. The importance of rare earth elements has even been used as plotlines in novels and television series. China is the world's largest exporter while Japan is the largest importer. Prices are volatile, rising by a factor of 7 from 2008 to 2011 only to fall to just twice the original price by 2014. Dr. King noted that the name, "rare earth" elements, is misleading. These elements are actually quite abundant, but seem rare as the concentration of these elements is far more dispersed while metals such as lead and nickel have more concentrated deposits. Dr. King outlined several of the factors contributing to the uncertainties in the market, including problems in price discovery due to the absence of organized markets, the Chinese monopoly in supply, and political conflicts.



**Dr. Alex King**, Ph.D., Director of the Critical Materials Institute, was a keynote speaker at the JPMCC's international commodities symposium, which was held at the University of Colorado Denver Business School on August 10 through August 11, 2017.



## "Public Policy Trends and Commodity Market Impacts"

Dr. Christopher Hansen, Ph.D., discussed renewable energy policy and development during the conference. Dr. Hansen is a member of the Colorado General Assembly. He noted the recent decline in the cost of installing new wind power and solar power generation capacity. The renewable energy industry may soon be able to be cost competitive with other forms of energy, even if government subsidies are reduced, he predicted. Dr. Hansen also discussed the potential for self-driving vehicles to become mainstream in the next 5 to 10 years, which would thereby have a revolutionary impact on traffic and highway infrastructure.



**Dr. Christopher Hansen**, Ph.D., and member of the Colorado General Assembly, discussed renewable energies during his presentation at the JPMCC's August 2017 international commodities symposium.

## "Distributed Ledger Technology and the Future of Financial Markets"

The rapid development of Blockchain and Bitcoin has led to the discussion of financial technology and cryptocurrencies in commodity circles. During the conference, Mr. Garth Leonard, Director & Co-Head of Commodity Tracker at IHS Markit, and Mr. Jeffrey Billingham, (then) Vice President at IHS Markit, considered the impact of distributed computing and data storage on the future of the financial markets with the possibility that trading may become less concentrated on large financial exchanges, and scattered across thousands of servers around the world. While media attention focuses on Bitcoin, Blockchain technology is likely to be more transformative to the global economy, including faster clearing of securities transactions. Smart contracts for financial derivatives may make International



Swaps and Derivatives Association (ISDA) agreements and slow clearing of Over-the-Counter (OTC) derivative transactions relics of the past. In commodities, Blockchain technology can digitize receipts and bills of lading, leading to faster shipping times and potentially safer financing of commodities by preventing the unsavory practice of pledging commodity collateral to multiple lenders.



**Mr. Garth Leonard**, Director & Co-Head of Commodity Tracker at IHS Markit, explained Digital Ledger Technology during his presentation at the JPMCC's August 2017 international commodities symposium.

## "China: Credit, Collateral, and Commodity Prices"

Dr. Keith Black, Ph.D., CFA, CAIA, discussed China's credit cycle in connection with changes in demand for commodities. Dr. Black is Managing Director, Curriculum and Exams, at the Chartered Alternative Investment Analyst Association. He also serves as a member of the *GCARD*'s Editorial Advisory Board. Dr. Black had previously written on his presentation topic in an <u>article</u> in the Fall 2016 issue of the *GCARD*. In his lecture, Dr. Black analyzed the use of industrial metals as collateral for loans to Chinese companies and traders. The demand for metals, especially copper, can be influenced by both industrial demand as well as the demand for collateral for financing transactions. Investors need to be aware that not all industrial metals imported by China are immediately used for industrial purposes, but can be warehoused and later returned as supply to the commodity markets. Thus, credit cycles, interest rates and credit conditions can all impact the market for industrial metals.





**Dr. Keith Black** (standing), Ph.D., CFA, CAIA, discussed his *GCARD* research digest article during his presentation at the JPMCC's August 2017 international commodities symposium. To Mr. Black's left are his fellow speakers on the conference's Chinese commodity demand panel. From left-to-right are Ms. Jodie Gunzberg, CFA, Managing Director and Head of U.S. Equities, S&P Dow Jones Indices; and Dr. Kaifeng (Kevin) Chen, Ph.D., Chief Strategist, Hywin Capital Management, LLC. Each of the panel's speakers are members of the *GCARD*'s Editorial Advisory Board.

#### Conclusion

Building on the success of the 2017 conference, Professor Jian Yang, Ph.D., CFA, is organizing the <u>JPMCC's second commodities symposium for August of this year</u>, as discussed in his article, "Update from the Research Director of the J.P. Morgan Center for Commodities," which is also in this issue of the *GCARD*. We welcome *GCARD* readers to consider registering for this conference!



## **Author Biographies**

#### KAIFENG (KEVIN) CHEN, Ph.D.

Chief Strategist, Hywin Capital Management, LLC; and Editorial Advisory Board Member, Global Commodities Applied Research Digest

Dr. Kaifeng (Kevin) Chen is the Chief Strategist for Hywin Capital Management, LLC. Dr. Chen received a B.A. degree in Economics from the Renmin University (China) and a Ph.D. in Finance from the Financial Asset Management Engineering Center at the University of Lausanne (Switzerland). He is also an Adjunct Assistant Professor at New York University and a member of the Economic Club of New York. Dr. Chen started his career at the China Development Bank, after which he became a Director of Asset Allocation at Morgan Stanley and a Senior Portfolio Manager, Credit Agricole in Amundi Asset Management. As an expert in economics and finance, he has been interviewed by many media outlets such as CCTV, *China Security Journal*, Xinhua News Agency, *21st Century Business Herald*, Tencent Finance and Sina Finance.

#### **KEITH BLACK, Ph.D., CFA, CAIA**

Managing Director, Curriculum and Exams, Chartered Alternative Investment Analyst Association; and Editorial Advisory Board Member, Global Commodities Applied Research Digest

Dr. Keith Black has over twenty-five years of financial market experience, serving approximately half of that time as an academic and half as a trader and consultant to institutional investors. He currently serves as Managing Director of Curriculum and Exams for the CAIA Association. During his most recent role at Ennis Knupp + Associates, Dr. Black advised foundations, endowments and pension funds on their asset allocation and manager selection strategies in hedge funds, commodities, and managed futures. His prior experience includes commodities derivatives trading, stock options research and CBOE floor trading, and building quantitative stock selection models for mutual funds and hedge funds. Dr. Black previously served as an assistant professor and senior lecturer at the Illinois Institute of Technology.

He contributes regularly to *The CFA Digest* and has published in the *Journal of Wealth Management*, the *Journal of Trading*, the *Journal of Investing*, and the *Journal of Alternative Investments*, among others. He is the author of the book, <u>Managing a Hedge Fund</u>, as well as the co-author of the 2012 and 2015/2016 second and third editions of the CAIA Level I and Level II textbooks. Dr. Black was named to the *Institutional Investor Magazine's* list of "Rising Stars of Hedge Funds" in 2010.

Dr. Black earned a B.A. from Whittier College, an M.B.A. for Carnegie Mellon University, and a Ph.D. from the Illinois Institute of Technology. He has earned the Chartered Financial Analyst (CFA) designation and was a member of the inaugural class of the Chartered Alternative Investment Analyst (CAIA) candidates.

#### **LENA GERBER**

#### Marketing Senior Professional, University of Colorado Denver Business School

Prior to her present position with the University of Colorado Denver Business School, Ms. Lena Gerber worked for the following institutions: Red Paw Technologies, Inc., ALIGHT (Alliance to Lead Impact in Global Human Trafficking), Daniels College of Business, The Invictus Initiative, University of Denver, Josef Korbel School Office of Graduate Admissions, Purdue University, and Wyndham Worldwide / RCI. Ms. Gerber has both a Master's Degree in International and Intercultural Communication and an International M.B.A. from the University of Denver.