



## Interview with Professor Colin A. Carter

Distinguished Professor of Agricultural and Resource Economics, University of California, Davis; and Chair, J.P. Morgan Center for Commodities' Research Council



Professor Colin A. Carter, University of California, Davis and Research Council Chair, J.P. Morgan Center for Commodities (JPMCC) at the University of Colorado Denver Business School, addressing the JPMCC's Research Council in the Center's CoBank Lecture Hall on April 18, 2015.

In the inaugural issue of the *GCARD*, we interview Dr. Colin A. Carter, who became the Chair of the J.P. Morgan Center for Commodities' (JPMCC's) Research Council in the Fall of 2015. Dr. Carter is also a Distinguished Professor of Agricultural and Resource Economics at the University of California, Davis where he has been a researcher and educator for over 30 years. His Ph.D. thesis at the University of California, Berkeley was on soybean futures markets, and he still has a research program on futures markets. At UC Davis, Professor Carter is responsible for developing an introductory undergraduate course on futures and options where there are about 250 to 300 students who take this course each year. "It is so exciting to introduce the world of commodities to these excellent students," he said.



“They have no idea what I am talking about on the first day [of class]. What I do the first day is I put a list of commodities up on the screen that affects them on a daily basis, and I start with orange juice and coffee and so on and go through that and by the time I am finished ... they are actually paying attention.” Professor Carter’s research covers the grain and livestock sectors in China as well as the economics of biotechnology, global agricultural commodity markets, and biofuels policy in the United States.

## Interview with Professor Carter

*The Research Council of the JPMCC consists of “eminent researchers and successful professionals in practice, who are interested in a shared platform for relevant academic commodities research and its dissemination to the wider commodities community.” What encouraged you to become Chair of the JPMCC’s Research Council?*

When I was asked to Chair the Research Council by [Ajeyo Banerjee](#), I jumped at the opportunity because the Council members are such an impressive group of individuals, each with considerable experience and a strong interest in commodities. I knew that I could learn from each and every member of the Council. At the same time, I believed that I could help ... [Ajeyo] and the Center achieve its initial objectives.

*What were the highlights of the April and December 2015 Research Council meetings in Denver?*

From my perspective, the highlights were participating in the open discussions on areas where the Center could and should focus its efforts. There were some very innovative and interesting suggestions that came out of those sessions. The synergy created between the academics and industry professionals was a very unique and fruitful outcome of the meetings.

*What are some of your goals for the Research Council over time?*

I would like to see the Council endorse and facilitate commodity-related research that not only expands our academic understanding of commodity markets but also has a strong practical relevance. It is an exciting industry with complicated dynamics, giving rise to many interesting questions and issues.

*Amongst your research interests is the Chinese agricultural sector, including environmental issues. What have the results of your research been, and what are you currently working on in this area?*

I am working on a very exciting project with colleagues at UC Davis and Nanjing Agricultural University in China. We are studying the impact of air pollution on crop yields in China. Our initial focus is on rice and we find that in southeastern China the negative impact of pollution on rice yields is of commercial importance, with implications for food security in China and globally. In my opinion, pollution may be a more pressing issue than climate change in China from the agricultural perspective, but of course pollution and climate change are related.



*You are also working on the impact of biofuels on the price of gasoline. What are some of your insights in this area?*

At the present time about 10 percent of motor fuel is ethanol, which has lower energy content than gasoline. In fact ethanol gives only two-thirds the mileage of gasoline with a standard automobile engine. However at the gas pump motorists are not offered a discounted price on the ethanol blend that accurately reflects the lower energy content of the blend. The upshot is that the price of motor fuel at the pump is increased due to the mandatory requirement that we must use ethanol and it is not priced according to its energy content. This is yet one more hidden cost of U.S. biofuels policy.

*Do you think that the establishment of “information markets” would be a useful activity for an academic institution?*

Yes, I do. I will give you one example. Information or prediction markets were very common for U.S. elections from the late 1800s until the 1940s. Traders could buy or sell standardized contracts that gave a fixed dollar payment if the candidate in question won the election. The markets were extremely large and they were very accurate at forecasting election outcomes long before “scientific polling” was developed with telephone surveys.

Today we are finding that telephone surveys are not all that accurate because they miss a segment of the population that does not use landlines. I think we should go back to supporting information markets for purposes of predicting election outcomes. They are not only accurate but also very efficient. In the commodities space, there are numerous other potential applications for information markets.

*What is your view on the revolutionary changes in publishing, particularly in bringing the costs down for textbooks? What has been your experience in this regard?*

I think the days of large publishing houses charging \$150 to \$250 for a textbook are on the way out. I have a textbook on futures and options markets and I obtained the copyright back from my publisher and now self-publish through Create-Space, owned by Amazon. The book is published on demand and retails for less than \$35. The students save money and my royalties are about the same as they were with a large publisher. Another benefit of this modern approach to supplying textbooks is that the author can easily update the book regularly by uploading a new pdf file, because the book is published on demand.

*Water usage seems to be a particularly controversial topic in California. Are there areas of research, including on allocation principles that are useful in resolving this controversy?*

There is excess demand for water in California because the pricing mechanism is not used extensively in the state. Furthermore, the water storage and delivery system is old. I live near Sacramento and some residential areas in Sacramento are still without water meters. 2015 was a severe drought year, and homeowners without water meters had no incentive to cut back on usage. California is experimenting with water markets, with tiered pricing, etc. However, there are still a lot of behavioral unknowns regarding homeowners, farmers, and industrial water users and how they respond to different incentive



systems. This is an area where further research could help policy makers do a better job of introducing market-based solutions to the water problem in California.

*What topics do you think we should cover in the future in the “Global Commodities Applied Research Digest,” given its practitioner focus?*

One topic I would like to see addressed is whether or not innovations in commodity derivatives are keeping up with the changing structure of commodity production, processing and marketing. In commodities we are still using basic derivatives developed more than one hundred and fifty years ago. Should we be looking at the potential to introduce new forms of derivatives, given the dramatic changes in the economic structure of the commodities industry?

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**COLIN A. CARTER, Ph.D.**

**Distinguished Professor of Agricultural and Resource Economics, University of California, Davis**

Dr. Carter is Distinguished Professor of Agricultural and Resource Economics at the University of California, Davis, where he served as Department Chair from 1998 to 2001. He is the current Director of the Giannini Foundation of Agricultural Economics at the University of California and his fields of interest include commodity markets and international trade. He has produced roughly 150 academic publications on topics including international trade, agricultural policy, futures and commodity markets, the economics of China’s agriculture, and the economics of biotechnology adoption in agriculture.

He has received numerous professional awards for teaching and research including the Agricultural and Applied Economics Association’s (AAEA) Annual Award for Quality of Research Discovery in 1981 and 2008, the Quality of Communication award in 1994 and 2011, a Distinguished Policy Contribution award in 1998, and an award for Outstanding Essay for the 21st Century, in 2001.

Dr. Carter was elected a Fellow of the AAEA in 2000 in recognition for his many contributions to the field of agricultural economics, and he served as Editor of the *Review of Agricultural Economics* from 2004 through 2008.

Dr. Carter has been engaged by over 40 different entities as a consultant, including several law firms and international organizations. Carter has extensive litigation experience as an economics expert witness, dealing with the following commodities: wheat, corn, barley, soybeans, rice, orange juice, hogs, cattle, broiler chickens, onions, strawberries, eggs, tomatoes, potatoes, and sugar. He has worked on a number of legal cases involving the economics of commodity markets, and he has testified in court and in front of domestic and international trade tribunals.

Dr. Carter is also the Chair of the J.P. Morgan Center for Commodities’ Research Council at the University of Colorado Denver Business School.