MINUTES FROM CAPTS ADVISORY BOARD MEETING

The Center for Agricultural Policy and Trade Studies (CAPTS)
Advisory Board Meeting
Tuesday, November 12, 2010
NDSU Barry Hall
Conference room 600
Fargo, ND

In attendance were Won Koo (Director of CAPTS), D.C. Coston (Vice President for Agriculture and University Extension, NDSU), Lee Kaldor (Senator Byron Dorgan's Office substituting for Senator Dorgan), Scott Stofferahn (Director, Eastern District), Doug Goehring (North Dakota Agricultural Commissioner), Dave Mogskog (substituting for Dave Berg, President and CEO, American Crystal Sugar Company), Kim Koch (substituting for Brian Sorenson Director, Northern Crops Institute, NDSU), Jeff Zent (Communication Director, North Dakota Trade Office substituting for Dean Gorder, Director of NDTO), Dan Wogsland (Executive Director, ND Grain Growers Association), Tom Espel (Corporate Treasurer, R.D. Offutt Company/RDO Equipment Co.), and the CAPTS researchers and administrative staff: Skip Taylor (Research Scientist), Yong Jiang (Research Assistant Professor), Oleksiy Tokovenko (Research Assistant Professor), and Jennifer Carney (Administrative Assistant)

Absent were Eric Aasmundstad (President, North Dakota Farm Bureau), Neil Conklin (President, Farm Foundation), Robert Carlson (President, North Dakota Farmers Union), Bob Sinner (President, SB&B Foods, Inc.), Byron Dorgan (U.S. Senator), Sijesh Aravindhakshan (Research Assistant Professor), Tom Lilja (Executive Director, North Dakota Corn Council).

The meeting opened at 9:30 am with welcoming remarks by D.C. Coston. The introductory remarks were followed by Dr. Koo expressing thanks to Senator Dorgan for his support of the Center. He also stated that he hope to have continued support from both Senator Hoven and Congressman Berg.

Dr. Koo then talked about the research the Center has been doing for the last six months which included;

1. Structural changes in commodity market under globalization.
2. Analysis of ND farm income under the changing trade environment.
3. Climate change legislation and their impact on ND agriculture.
4. Alternative use of biomass
5. Production of corn base ethanol and its impacts on prices of corn, soybean and wheat.

Koo then presented Structural Changes in Chinese and India's Agriculture and Implications on Global Trade of Agricultural Commodities. Koo stated that China and India are two of the largest countries in population and their economic growth is about 10% in China and 7% in India. The GDP composition for China is 10.6% agriculture, 46.5% industry and 42.6% service compared to India with 17% from agriculture, 28.2% from industry and 54.9% from service.

This tells us that China is more industrious. For comparison, U.S has only 2% of its GDP from Agriculture and Korea is 5%. Some other important findings from this study are:

1. China is likely to be able to stay self-sufficient in wheat and rice in 2020, but import corn and soybeans.
2. India will likely remain self-sufficient in wheat, rice, and corn. However, it will import a small amount of soybeans.
3. The U.S. had a comparative advantage in exporting soybeans to China, but India will import soybeans from Brazil.
4. The U.S. will be the largest exporter of corn, followed by Argentina.
5. Canada will surpass the U.S. in wheat exports although both will remain wheat exporting countries.
6. Since agricultural commodity markets are highly competitive, the rate of exchange is extremely important.
7. There would be significant changes in trade flows of agricultural commodities under globalization with increases in income.

There was some discussion after Dr. Koo's presentation. D.C. Coston asked if Brazil would have a competitive advantage with soybeans, is it because of lower transportation costs? Tom Espel asked if their infrastructure could handle it at this time and wondered if they are currently developing their infrastructure. Dr. Koo responded that they are developing their infrastructure; he also said that this will have to happen in order Brazil to improve its competiveness. The other factor would be the exchange rate. Lee Kaldor asked if the former Soviet Union countries were a factor. Koo stated that they may not be a big factor now, but would be within 10 years when the countries start to produce agricultural goods more efficiently. Dr. Tokovenko added that there may be a political factor. Currently there is a ban on exporting grain as they produce enough for themselves. Tom Espel asked about Africa's impact. Dr. Koo informed him that he would be visiting Africa in December and would have a better idea of their impact upon his return.

Skip Taylor, research scientist, presented the (1) Impacts of Greenhouse Gas Emission Regulations on the U.S. Sugar Industry, (2) An Economic Analysis of the 2008 Farm Bill: How Well Has it worked for North Dakota and (3) The Economic Impact of the EPA's Decision to Increase the Renewable Fuel Standard.

In his first presentation, Impacts of Greenhouse Gas Emission Regulations on the U.S. Sugar Industry he stated that, the United States House of Representatives passed climate change legislation entitled "The American Clean Energy and Security Act" (ACESA) in June 2009. This bill established a combined efficiency and renewable electric standard (CERES) which requires retail electricity suppliers to utilize 20% of renewable energy by 2020. Senators Kerri and Lieberman introduced a similar bill entitled "American Power Act" in the U.S. Senate. Taylor is concerned with the impact of legislation on the U.S. sugar industry since the U.S. sugar industry, especially beet sugar production, is energy intensive. His presentation on the sugar industry is as follows:

The energy requirements for sugar conversion are different between beet sugar and cane sugar. Coal is used for in beet sugar production and natural gas and bagasse are used for cane

sugar processing. A typical beet sugar factory will emit about 1 ton of CO_2e per metric ton of sugar while a typical cane mill and refinery will emit about 0.6 ton of CO_2e per metric ton of sugar. By using bagasse, the cane industry will obtain credit for reduced emissions, which will reduce the impact of GHG emission regulations on the industry. GHG emissions in major sugar producing countries are different, but they are generally lower than emissions by beetsugar production and higher than can sugar production in the U.S.

The objective of this study is to analyze the potential impacts of U.S. GHG emission regulations directed towards the U.S. sugar industry. Special attention is given to evaluate U.S. sugar imports when domestic sugar production responds to higher processing costs imposed upon the industry by GHG emission limitations.

The U.S. sugar industry, especially the sugar beet industry would be impacted negatively under at Carbon Tax program. U.S. sugar production and processing would move the countries where there are no environmental regulations. Total CO2e reductions would be minor as CO2e are just transferred to other countries. Similar results would be expected in any industry where production could be transferred outside of the United States and the products imported back into the country.

In his second presentation, Economic Analysis of the 2008 Farm Bill: How Well Has It Worked for North Dakota, he concluded that the 2008 Farm Bill included several additional provisions which were not included in previous legislation, mainly the Average Crop Revenue Election Program (ACRE) and the Supplemental Revenue Assistance Program (SURE). The ACRE program is voluntary while the SURE program is included in the Farm bill for all participating producers. The ACRE program is revenue based counter-cyclical program that replaces the traditional price based counter-cyclical program (CCP) and the SURE program is a whole farm disaster program which is tied to federal crop insurance. Experience has shown that the ACRE program has not been popular with producers, mainly because producers do not clearly understand the provisions of the program, and producers do not like the idea of losing 20% of their direct payments and 30% of their marketing loan benefits. In North Dakota, only 10% of the producers entered into the ACRE program. With the recent commodity prices and crop yields, the programs have not been activated and have had little bearing on producers.

In recent years commodity prices have been at levels which have limited most government payments. However, government payments still make up a substantial portion of net farm income. Direct and conservation payments provide over $8 billion for U.S. producers and $350 million for North Dakota producers.

The study found that the ACRE program provides for higher net farm than the CCP under the pessimistic scenarios although there are 20% reduction in direct payments and 30% reduction in marketing loan rates under the ACRE program. It is mainly because the ACRE payments are more than enough to the loss in target price and loan rate. . Under the optimistic scenarios the CCP program provides higher net farm incomes because ACRE payments do not offset the loss of direct payments.

There are regional differences between the ACRE and CCP programs but the general conclusion is the same. In all four regions, the ACRE program provides higher net farm income than the CCP under the pessimistic scenarios but not under the optimistic scenarios. Under the base scenario, the CCP increases net farm income slightly.

One limitation of the study is that when a producer qualifies for ACRE payments, those payments are made. There may be cases where state average revenue is not low enough to trigger the payment. This situation is not included in the model, indicating that the estimated income under ACRE may be over stated.

Another issue which has developed in recent years is increasing production costs. A similar occurrence happened in the late 1970s. Production costs increased to a level which required the increasing of support prices. The current support prices were established in the late 1990s and may need to be reevaluated in light of today's production costs. However under current federal budget constraints, it is highly unlikely to occur.

In his third presentation, Economic Impact of the EPA's Decision to Increase the Renewable Fuel Standard, he stated that during late 2009 and early 2010, ethanol consumption reached a level which was called 'the Blender Wall". The Blender Wall is important because in the United States only limited blends of ethanol (E10) are generally available and E85 is available only in a limited number of states. According to the ethanol industry, this restriction has prevented the further increase in demand for ethanol-derived fuel. Currently, about 38% of total U.S. corn production is used for the production of ethanol.

Recently, the ethanol industry requested that the Environmental Protection Agency (EPA) increase the renewable fuel standard from E10, 10% ethanol, to E15, 15% ethanol. That change would allow the ethanol industry to continue to expand above the current Blender Wall. The EPA decided on October 13, 2010 to allow automobiles that were built during 2007 and later to burn gasoline combined with 15% ethanol. That decision to increase the allowable ethanol in gasoline will not remove the Blender Wall; it will only move it to a higher level.

The objective of this study is to estimate the impact on the U.S. corn and soybean industries of the EPAs decision to allow a change in the renewable fuels standard. The Global Corn and Soybean Policy Simulation Model will be used to estimate the impact of increasing the renewable fuels standard to allow 10% ethanol to 15% ethanol. In addition, a scenario was evaluated under a renewable fuels standard of 20% ethanol. Further analysis estimated the increases in gross returns for North Dakota agricultural producers. Details of the model can be obtained in "2010 Outlook of the U.S. and World Corn Industries' 2009-2019".

Dr. Oleksiy Tokovenko gave a presentation on reducing greenhouse gas emissions under globalization. His study aims to analyze the potential effects of unilateral increase in GHG emission standards and their enforcement on domestic and foreign production and abatement decisions. The one good - two regions partial equilibrium model of international trade is used to derive and interpret the conditions under which such an increase will lead to a reduction in a total level of GHG emission.

The study found that unilateral introduction of per unit domestic emission tax (or equivalent regulation) decreases domestic market output and intensifies domestic abatement activities resulting in the reduction of the home country GHG emissions level. The analysis suggests that the change in the market conditions caused by home country unilateral policy actions will lead to an increase in the foreign production level and complementing reduction in abatement activities (providing the initial equilibrium assumed some nontrivial abatement decisions).

Further analysis indicates that improvement in the global GHG emission level will be observed if the response of the home country abatement is more elastic than that of the foreign industry by the factor of the ratio of initial foreign to domestic marginal emission intensities. It is also shown that in the large industry case the appropriate factor is adjusted by the measure of the relative market influence of two industries.

The study concludes that a unilateral reduction in GHG emissions will unlikely lead to the reduction in the total GHG emissions level and may worsen the environmental situation in other regions. An appropriate multilateral agreement is required to achieve the goal. With China being the largest GHG emitter its participation in such an agreement is crucially important for success. Additional (tax, penalty) burden will increase the cost of production and seriously reduce the competitiveness of domestic industries under unilateral regulation. However, there would be long run benefit such as renewable energy development and increasing energy security.To maintain competitiveness of the domestic industries GHG emission regulation should require signing a multilateral agreement that will involve producers from the major emitting countries, providing the subsidy or other form of support and incentives for renewable energy development.

Break

D.C. Coston called the meeting back to order

Dr. Yong Jiang, presented on Potential Supply of Carbon Sequestration in North Dakota. This presentation reports research findings on possible producer response to a hypothetical carbon market and potential supply of land-based carbon sequestration by agricultural producers in North Dakota. This research project is motivated by the possible impact of a cap-and-trade climate policy on production costs and the income potential for carbon sequestration that may offset the production cost impact. This project attempts to develop understandings of: 1) how producers would respond to on-farm carbon sequestration potentials by production attributes with a carbon market; 2) potential acreage enrollment in carbon sequestration and carbon offsets supply by different practices; and 3) producer perceived costs for adopting different carbon sequestration practices. Based on a quantitative modeling of observed producer behavior in a survey, it was found that;

- Potential revenue from carbon sequestration significantly increased the probability of participation in carbon programs
- Producer response to carbon sequestration differed across carbon programs, were correlated among carbon programs, and could be stratified by production attributes
- Producer response implied better, consistent understanding of the potential private costs for conservation tillage followed by rangeland management, but widely ranged cost perceptions for cropland conversion to grass and tree planting, reflecting large uncertainty or heterogeneity associated with both practices
- In ND, conservation tillage and rangeland management would play a major role in the carbon sequestration program by their significant acreages

- In ND, the supply of carbon credits could be mainly from conservation tillage, and rising carbon price could dramatically increase the revenue from carbon sequestration

At the end, the presentation outlines current research activity – modeling crop yield in relation to weather to explore the impact of climate change – and its justification and research procedure.

Dr. Sijesh Aravindhakshan, was not present at this meeting so Dr. Koo presented Dr. Aravindhakshan research. Dr. Koo presented the findings of Dr. Aravindhakshan research regarding alternative use of biomass. The major findings of this study were;

- Producing cellulose ethanol is not economically feasible with the current processing technology and prices of corn and gasoline
- Limited demand for ethanol with the mandated blending ratio of 10% - an increase in the blending ratio to 15% may be required
- Cofiring may be another alternative under either carbon tax or CAT
- Cofiring reduces GHG emissions and increases economic benefits without increases in prices of commodities.

Dr. Won Koo next, presented the future projects CAPTS will work on. The research projects are;

1. Analysis of exchange rate – What causes the U.S. trade deficit and how does it affect ND agricultural exports.
2. Continue to analyze farm income in ND under alternative market conditions.
3. The impacts of an increase of blending ratio on the corn industry and the prices of other commodities
4. A feasibility study on cofiring with American Crystal Sugar Company
5. Revising and update the global econometric simulation models for wheat, corn, and soybeans.
6. The impact of climate change on crop yields.
7. Interdependency between energy costs and production expenses
8. Structural changes in agricultural trade flows under globalizing trade environment
9. Analyzing alternatives of the 2012 Farm Bill

Dr. Koo also presented a proposal for a national conference. It would take place at the Fargodome and sometime between February and June and focus on the 2012 Farm Bill. Scott Stofforahn suggested that if you wanted legislators and farmers there February would be the best time. The possible date for the conference would be the 22 and 23 of February, but it is depending upon availability of the Fargodome and Senator Conrad's schedule.

Dr. Koo quickly went over the Centers budget and let the board know that the Center needs to raise over $100,000 to maintain its research program. He would also like to hire one

more researcher. Dr. Koo concluded the meeting with words of gratitude to Senator Dorgan for his endless support of the Center.

The meeting was adjourned at 1:00