

## **1. The Post-recession Economic Landscape for Food and Agriculture: Maintaining Our Competitiveness**

### **Mike Woolverton**

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*Mike Woolverton received his Ph.D. from the University of Missouri. After serving on the faculties of The Ohio State University and Arizona State University, he became the Continental Grain Professor of Agribusiness at the American Graduate School of International Management, where he now has emeritus status. Woolverton is currently Professor and Extension specialist at Kansas State University with responsibilities that include grain marketing and bio-fuel economics. Professor Woolverton has written five textbooks, the most recent of which is Agribusiness Marketing: The Management Perspective, and was the founder and long-time Managing Editor of Agribusiness: An International Journal. He was a member of the founding board of directors of the International Agribusiness Management Association, now called the International Food and Agribusiness Management Association. Woolverton was named an Association Fellow in 2003. Woolverton's research interests include structure and performance of the grain and oilseed marketing system, economics of the bio-energy industries, risk management for commodities, and strategic leadership. He has had extensive international experience including long-term assignments in Europe and Asia and short-term executive education programs in Europe, Asia, North Africa, and the Middle East.*

### **Daniel O'Brien**

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*Daniel O'Brien was raised on a grain and livestock farm in south central Nebraska, in which he still has an interest with his father and three brothers. He received both Bachelor of Science (1978) and Master of Science (1980) degrees in Agricultural Economics from the University of Nebraska-Lincoln. The focus of his M.S. thesis was on analyzing the impact of agricultural cooperatives on rural Nebraska fertilizer markets. O'Brien then worked as an extension agent in western (Lincoln County) and northeastern (Pierce County) Nebraska for seven years beginning in early 1981. While attending graduate school at Iowa State University beginning in 1987, O'Brien worked as an Extension Assistant in Agricultural Marketing, focusing on analysis grain and livestock market situation and outlook and price risk management strategies. He completed his Ph.D. in December 1993, focusing his dissertation research on developing a method by which to forecast the probability of alternative U.S. harvest time corn futures price outcomes. While working as Extension Farm Management Specialist in Northwest Iowa during 1993 through early 1995, he became heavily involved in analysis of the structural changes in the Iowa livestock industry associated with contract hog production. From March 1995 through May 2003, O'Brien worked as the Extension Agricultural Economist in Northwest Kansas based out of the Northwest Research and Extension Center in Colby. He held the position of Northwest Area Extension Administrative Director starting in June 2003 before returning to his Extension Agricultural Economist position in January 2007. Daniel O'Brien's ongoing extension and applied research interests and efforts are in the areas of a) grain market supply-demand analysis, bioenergy impacts and price-income risk management strategies, b) grain industry market structure, conduct and performance – focusing on grain handling and transportation issues, and c) economic analysis of irrigated and dryland cropping systems, and associated cropland leasing arrangements.*

### **Abstract/Summary**

*It is not an economic depression...but it feels like it to lots of people. Except for livestock, most agriculture and food industries have escaped major damage - so far. However, the playing field is being changed under our feet by the 'Great Recession,' natural developments around the world, and by government actions. This session will examine issues such as government involvement, the potential for inflation, energy, climate change legislation, global food demand, and food security to paint a picture of the economic landscape as it might appear after the recovery. The overarching issue is – Will United States agriculture and related food industries remain competitive in the post-recession global economy?*

# THE ECONOMIC LANDSCAPE RISK AND PROFIT CONFERENCE 2009

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## WORLD'S LEADING EXPORTERS, MMT, 2009/10 (Projected)

Country/Region	Amount	Commodities
United States <sup>1</sup>	116.8	C, SB, W, R
Brazil	33.0	SB, C, R
EU-27	22.0	W, C
Argent.	21.7	SB, C, W
Canada	17.0	W, C
Russia	16.5	W
Austral.	15.5	W
Ukraine	11.0	W, C

<sup>1</sup>U.S. % of world – 63% corn, 43% soybeans, 21% wheat, 11% rice

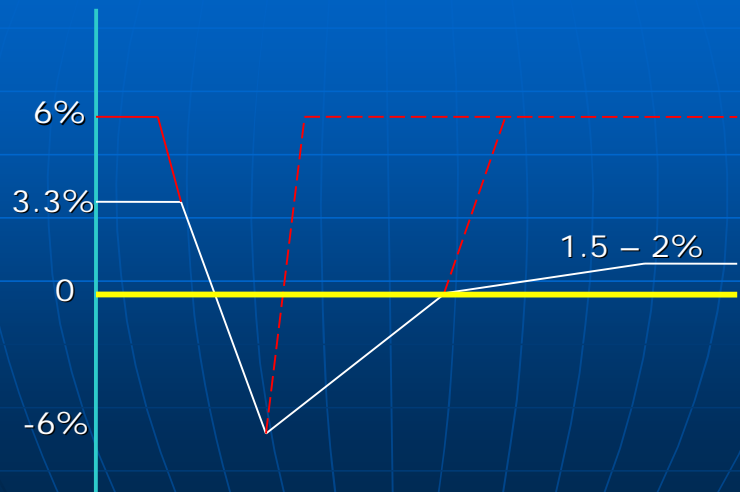
Source: USDA, WASDE Report, August 2009

## Recession vs. Depression

- Recession – Cyclical downturn, short in length, single-digit unemployment, mild consumer reaction, inventory corrections, low interest rates, mild fiscal stimulus (may be accompanied by inflation)
- Depression – Episodic drop, long recovery, double-digit unemployment, permanent changes in consumer behavior, wide-spread business failures, no lending or borrowing, massive fiscal stimulus (deflation and deleveraging)

## Economic Recovery Perceptions

Growth Rate



## World's Largest Economies, 2006\* and 2008 est.

1. United States	\$13.2 T.	1. Euro. Union	\$14.8 T.
2. Japan	4.3	2. United States	14.6
3. Germany	2.9	3. China	7.8
4. China	2.6	4. Japan	4.4
5. U. Kingdom	2.3	5. India	3.3
6. France	2.2	6. United Kingdom	2.2
7. Italy	1.8	7. Russia	2.2
8. Canada	1.2	8. Brazil	2.0
9. Spain	1.2	9. Mexico	1.6
10. Brazil	1.1	10. Canada	1.3
11. Russia	.98	11. S. Korea	1.3
12. India	.91	12. Indonesia	.92

\* CIA World Fact Book as of July 2007. In July 2008, GDP data was changed to reflect comparative purchasing power and Europe was combined.

## U.S.      China

GDP (2008, trillions)	\$14.58	\$7.8
Growth Rate (5 yr. ave.)	3.3%	10%
Growth Rate 2009	0%	7%
Stimulus (% GDP)	5.6%	8%
Gov't Budget (2009 est.)	-\$1.5 T.	slight surplus
National Debt (2008 % GDP)	60.8	15.7?
Consumer Exp. (% GDP)	70	30
Savings rate (% income)	3	20
Net Exports (% GDP)	-5	50
Comparative Adv.	Intellectual capital	Low cost labor

## Ownership of Productive Assets

- Capitalism – Private ownership of assets protected by law; minimal government intervention; profit motive leads to high productivity and innovation; but subject to cyclical fluctuations
- Socialism – Government ownership of assets; strong government controls; production goals set to meet needs; fluctuations dampened by government actions; but productivity and innovation tend to be reduced

## Economic Structure Continuum

Pure  
Capitalism

Pure  
Socialism

Compare the United States to China on the continuum line. Where will each country be after this economic crisis is over?

## Largest Economies' Public Debt % of GDP

1.	United States	\$14.6 <sup>Tril.</sup>	61%
2.	China	7.8	16%?
3.	Japan	4.4	170%
4.	India	3.3	78%
5.	Germany	2.9	63%
6.	United Kingdom	2.2	47%
7.	Russia	2.2	7%?
8.	France	2.1	67%
9.	Brazil	2.0	41%
10.	Italy	1.8	104%

## Effects of a Large National Debt

- Crowding out effect – government borrowing reduces the amount of capital available for individuals and corporations
- Interest payments (debt service) take up a large portion of the annual budget
- Investors (domestic and foreign) become reluctant to lend more because of default risk or fear of inflation

## Climate Change

(Formerly known as global warming)

- Emission reduction choices – EPA regulation or Cap and Trade
- EPA with permits, inspection, etc. seen as too intrusive and too costly
- Cap and Trade would set limits on emissions that would decrease over time but encourage trading of debits and credits
- Farmers could get paid for credits by planting trees, using minimum or no-till, etc.
- But farmers would pay higher prices for fuel, fertilizer, steel in equipment, etc.

## Climate Change Issues

- International indirect land use argument makes no sense
- Costs of compliance are likely underestimated; nearly impossible to quantify benefits
- Unless other high pollution countries also control emissions, the U.S. becomes less cost competitive
- Imposing tariffs on exports of non-participating countries would turn this into a trade issue

# The Critical Nature of Energy

- U.S. oil production peaked about 25 years ago
- The U.S. imports about 60% of needs - \$300 to \$500 billion per year
- By 2010, economic recovery will stimulate oil demand, drive price up, and dampen the recovery
- Global oil production will peak in about 10 years
- Major national security and economic stability implications

# Sources of Total Renewable Energy Used, United States

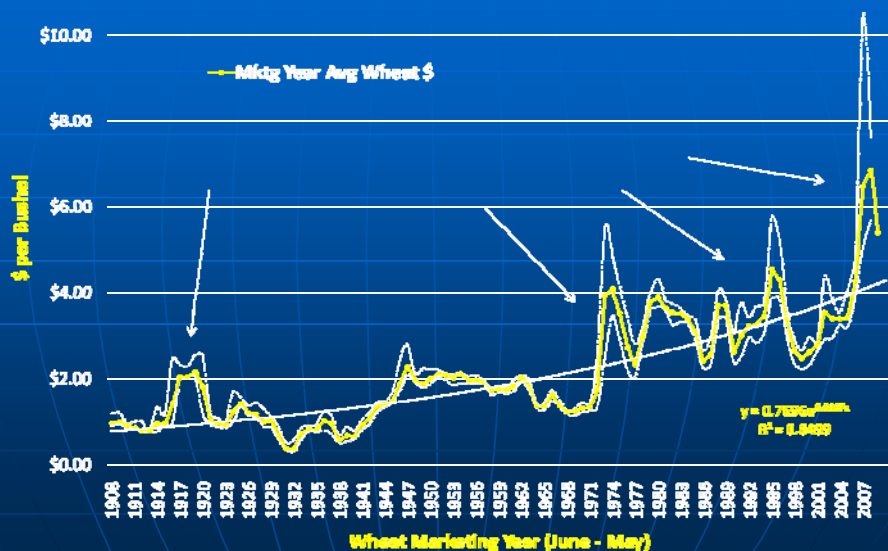
	2006	2008
■ Biomass (Biofuels)	48	53
■ Hydro	42	34
■ Geothermal	5	5
■ Wind	4	7
■ Solar	1	1

2007 Sense of Congress Resolution – 25% by 2025  
 Pres. Obama – 20 by 20 Now 11%.

Source: U.S. Energy Information Administration

## U.S. Wheat Price Trend & Variability

1908/09 - 2009/10 Marketing Years



## Oil vs Corn Futures Prices



# U.S. Dollar Value



# GLOBAL FOOD DEMAND

- The economies of China, Brazil, Russia, Indonesia, Nigeria, Ethiopia, Vietnam, and The Middle East are growing faster than the world average
- Long Term Challenge - feed 7 billion people in 2012, 8 billion in 2030, and 9 billion in 2050 (UN Projection, March 2009)

# Growing Demand, Higher Price



# WORLD'S LEADING IMPORTERS, MMT, 2009/10 (Projected)

Country/Region	Amount	Commodities
N. Afr./ME	44.7	W,C,SB,R
China <sup>1</sup>	38.1	SB
EU-27	22.7	SB,C,R
Japan	20.3	C,SB,W
SE Asia	16.6	W,C,SB
Mexico	12.5	C,SB
S. Korea	7.5	C,SB

<sup>1</sup> China % of global imports – SB 51%

Source: USDA, WASDE Report, August 2009

## Potential for Commodity Import Demand

Country	Population	GDP% – Pop% <sup>1</sup>	Acres per Capita <sup>2</sup>
Japan	127.3 mil.	.8	.09
Egypt	81.7	5.3	.09
South Korea	48.4	2.2	.09
Bangladesh	153.5	3.9	.13
United Kingdom	60.9	.8	.23
Vietnam	86.1	5.3	.25
Philippines	96.1	2.6	.27
China	1,330.0	9.2	.28
Pakistan	172.8	2.7	.28
D.R. Congo	66.5	2.9	.28
India	1,147.9	1.2	.33
Indonesia	237.5	4.7	.34

<sup>1</sup>Represents growth in income that can be used for consumption expenditures.

<sup>2</sup>Countries with less than 1/3 acre of farmland per person tend to be net importers of food and feed commodities.

## FOREIGN LAND DEALS

China -	Algeria, Zambia, Mozambique Indonesia, Russia, Australia, Mexico
South Korea-	Sudan, Madagascar, Philippines, Indonesia
Saudi Arabia-	Sudan, Ethiopia, Indonesia, S.E. Asia
UAE-	Pakistan
Libya-	Ukraine
Kuwait-	Cambodia

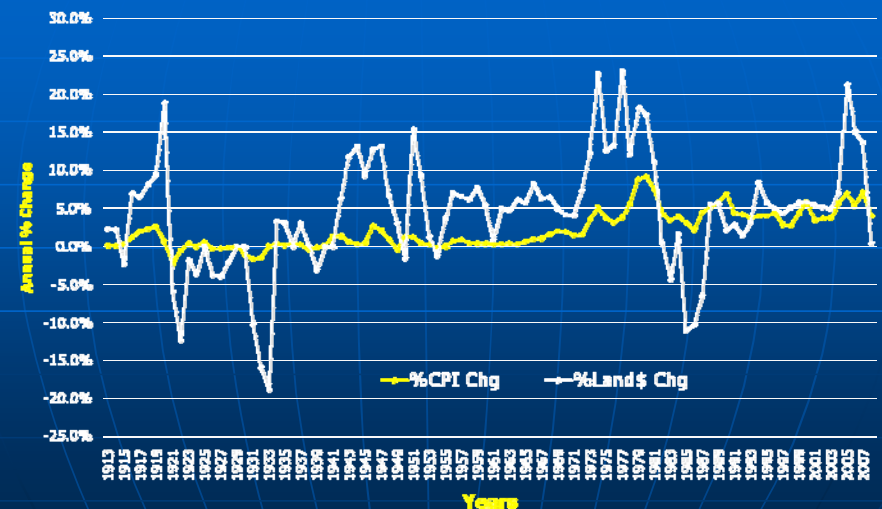
## FOREIGN LAND DEALS

### Motivation

- Food security
- Banning of or duties on exports
- Shortages and high commodity prices
- Shortage of land or water
- Underutilized land in target countries
- Good investment returns

Note: many of the deals have failed because of political and popular opposition

Annual U.S. CPI vs U.S. Farmland Changes  
1913 - 2008 Time Period



## SHORT TERM PRICE INFLUENCES 2008 and 2009 Update

- Difficult to supply enough to satisfy demand; **drop in global demand but recovering**
- Supply and demand fundamentals had secondary influence; **still mostly true**
- Falling dollar boosted exports; **reversed**
- The commodity price cycle attracted large amounts of investment capital to the commodities; **pulled out, now on sidelines**
- Ethanol demand was about 1/3 of corn crop; **still true; need ethanol demand**

## LONG TERM

- Economic and income growth in developing countries will recover
- Global population will continue to grow and people will seek to improve diets
- Global demand growth for grains and oilseeds will put pressure on available supplies and prices
- Agricultural producers and agribusiness will prosper

For information updates visit the  
KSU Agricultural Economics  
website:  
[AgManager.info](http://AgManager.info)

## WORLD CORN TRADE, MMT, 2009/10 (Projected)

<u>Major Importers</u>		<u>Major Exporters</u>	
Japan	16.3	U.S.	53.3
Mexico	9.0	Brazil	9.0
S. Korea	7.5	Argent.	9.0
SE Asia	4.3	Ukraine	3.0
Egypt	4.2	EU-27	2.0
EU-27	2.5	S. Africa	1.5
Canada	2.4		

Source: USDA, WASDE Report, August 2009

## WORLD SOYBEAN TRADE, MMT 2009/10 (Projected)

<u>Major Importers</u>		<u>Major Exporters</u>	
China	38.1	U.S.	34.4
EU-27	12.4	Brazil	24.0
Japan	4.0	Argentina	9.7
Mexico	3.5		

Source: USDA, WASDE Report, August 2009

## WORLD WHEAT TRADE, MMT 2009/10 (Projected)

<u>Major Importers</u>		<u>Major Exporters</u>	
No. Africa	18.7	U.S.	25.5
Mid East	17.6	EU-27	20.0
SE Asia	12.3	Canada	17.0
EU-27	6.5	Russia	16.5
Brazil	5.5	Australia	15.5
		Ukraine	8.0
		Kazak.	6.5

Source: USDA, WASDE Report, August 2009

## WORLD RICE TRADE, MMT 2009/10 (Projected)

<u>Major Importers</u>		<u>Major Exporters</u>	
Middle East	4.2	Thailand	10.0
Philippines	2.4	Vietnam	5.0
Nigeria	1.6	Pakistan	3.3
S. Am./Carib	1.5	U.S.	3.2
EU-27	1.3	India	1.5

Source: USDA, WASDE Report, August 2009