

# Update on Chinese Ag Economy

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Iowa Institute for Cooperatives Member Summer Workshop

Huxley, IA, June 15<sup>th</sup>, 2017



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## The new Mike Duffy



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# A Quick Introduction: Dr. Wendong Zhang

- Grown up in a rural county in NE China
- Attended college in Shanghai and Hong Kong
- Ph.D. in Ag Econ in 2015 from Ohio State
- 2012 summer intern at USDA-ERS on farm economy and farmland values
- Research and extension interests:

**land value/ownership** <http://card.iastate.edu/farmland/agriculture> and the environment

**China Ag: quarterly Ag DM articles**

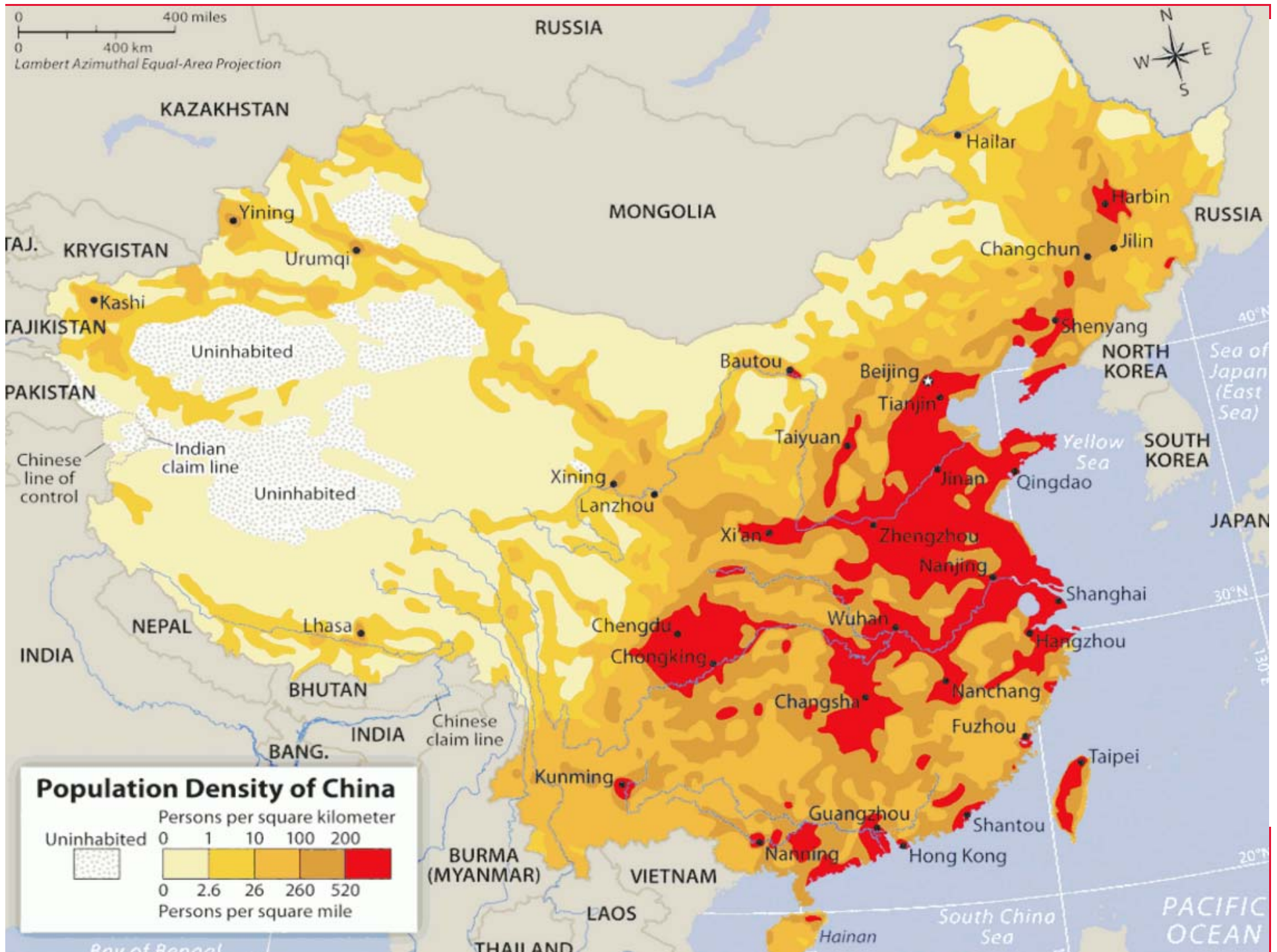
# China's Provinces



My  
Hometown









My  
Hometown:  
Shenxian,  
Shandong  
Province



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莘县新闻网  
<http://sx.lcxw.cn>



# Intensification of Land-Use in China

**Greenhouse – plastic film - Shandong Province**





## United States Department of Agriculture Foreign Agricultural Service

# China



## \$21.4 billion

U.S. Agricultural Exports, 2016

### Top 5 U.S. Exports

- 1 Soybeans (\$14.2 billion)
- 2 Course Grains\* (\$1.0 billion)
- 3 Hides & Skins (\$949 million)
- 4 Pork (\$578 million)
- 5 Cotton (\$550 million)

\*Excluding Corn

### Export Growth

2006-2016



# #1

Among U.S.  
Agricultural Export  
Markets, 2016

Source: FAS Global Agricultural Trade System (GATS) BICO HS- 6

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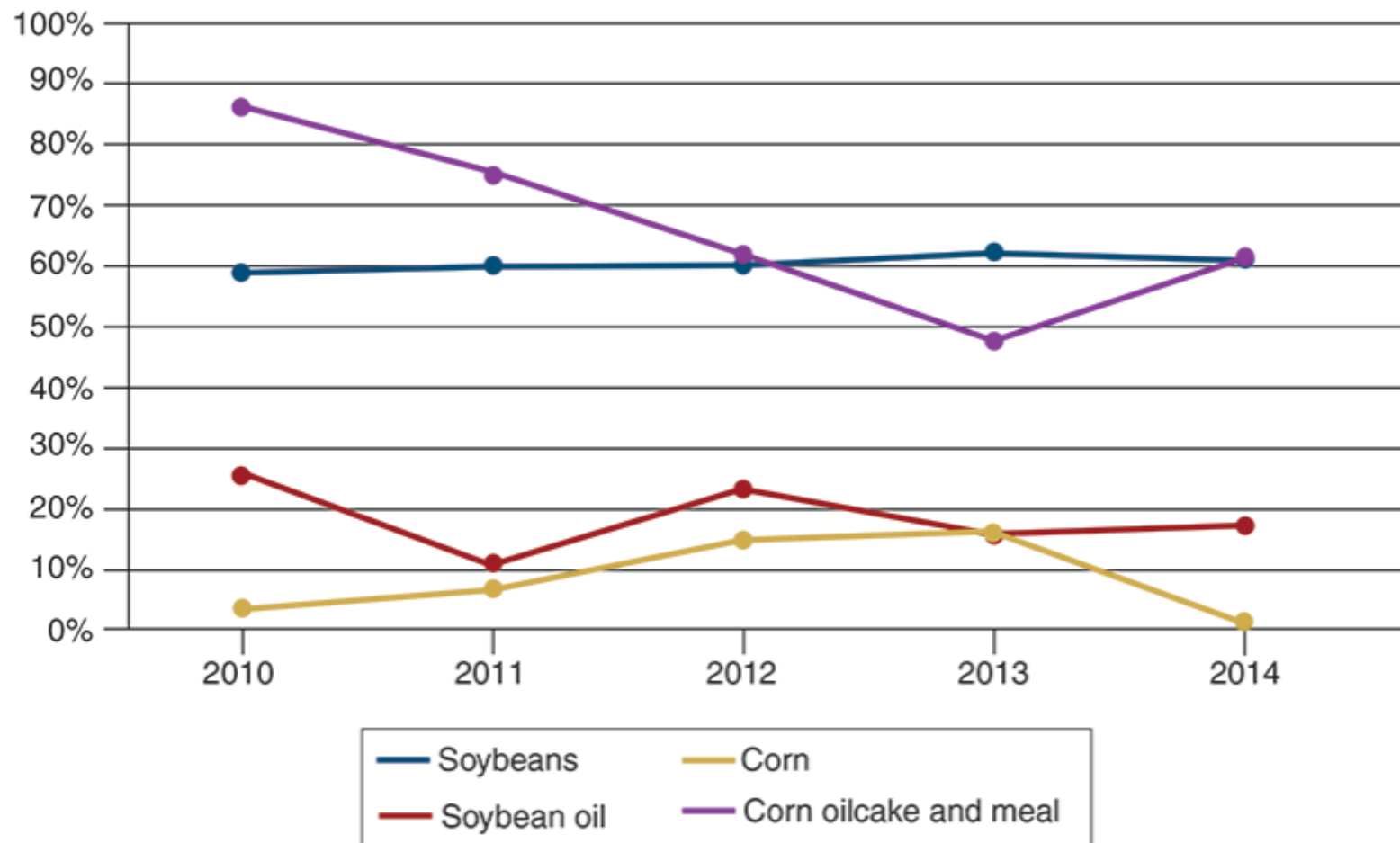


## CARD

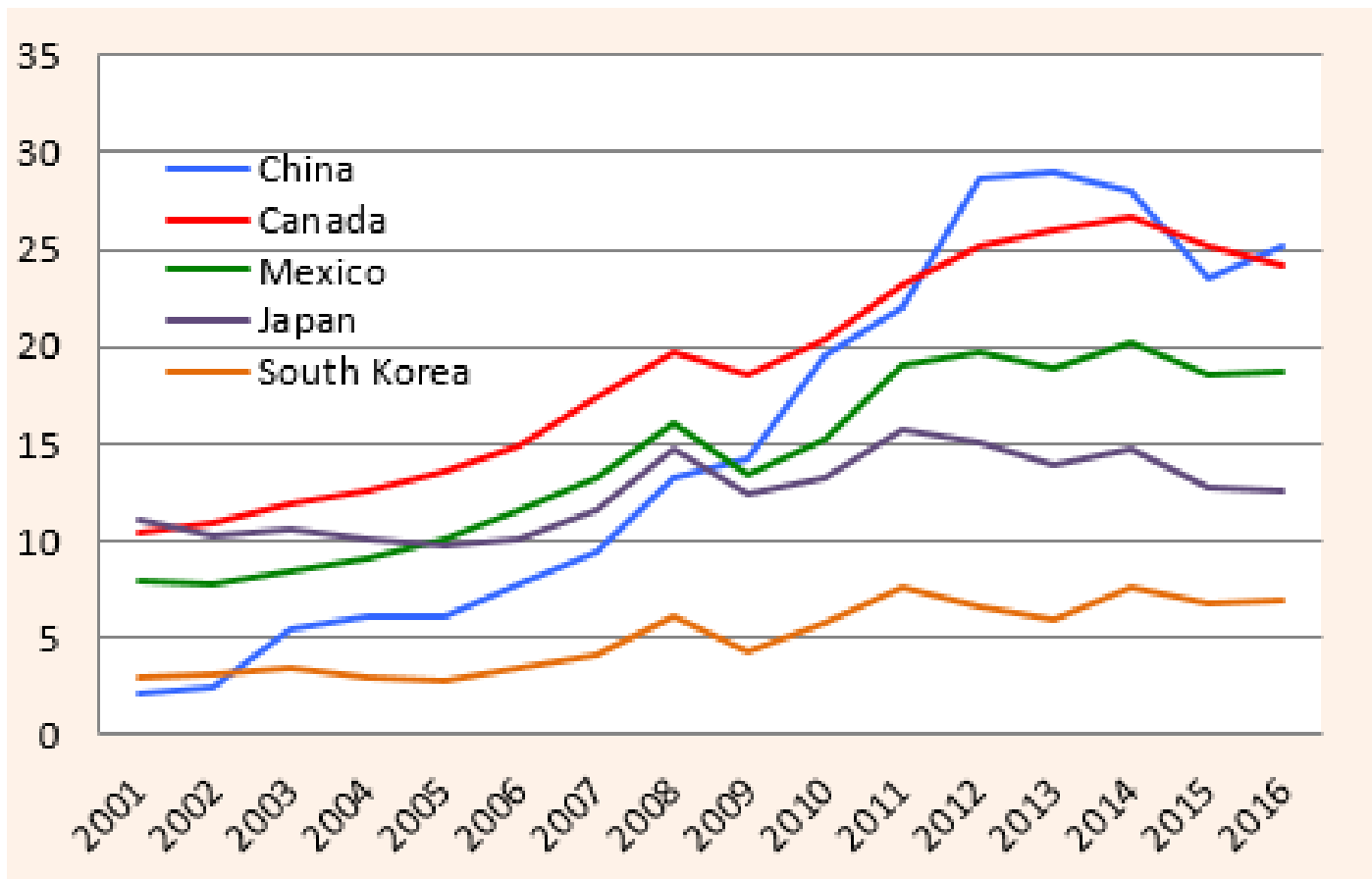
Center for Agricultural and Rural Development



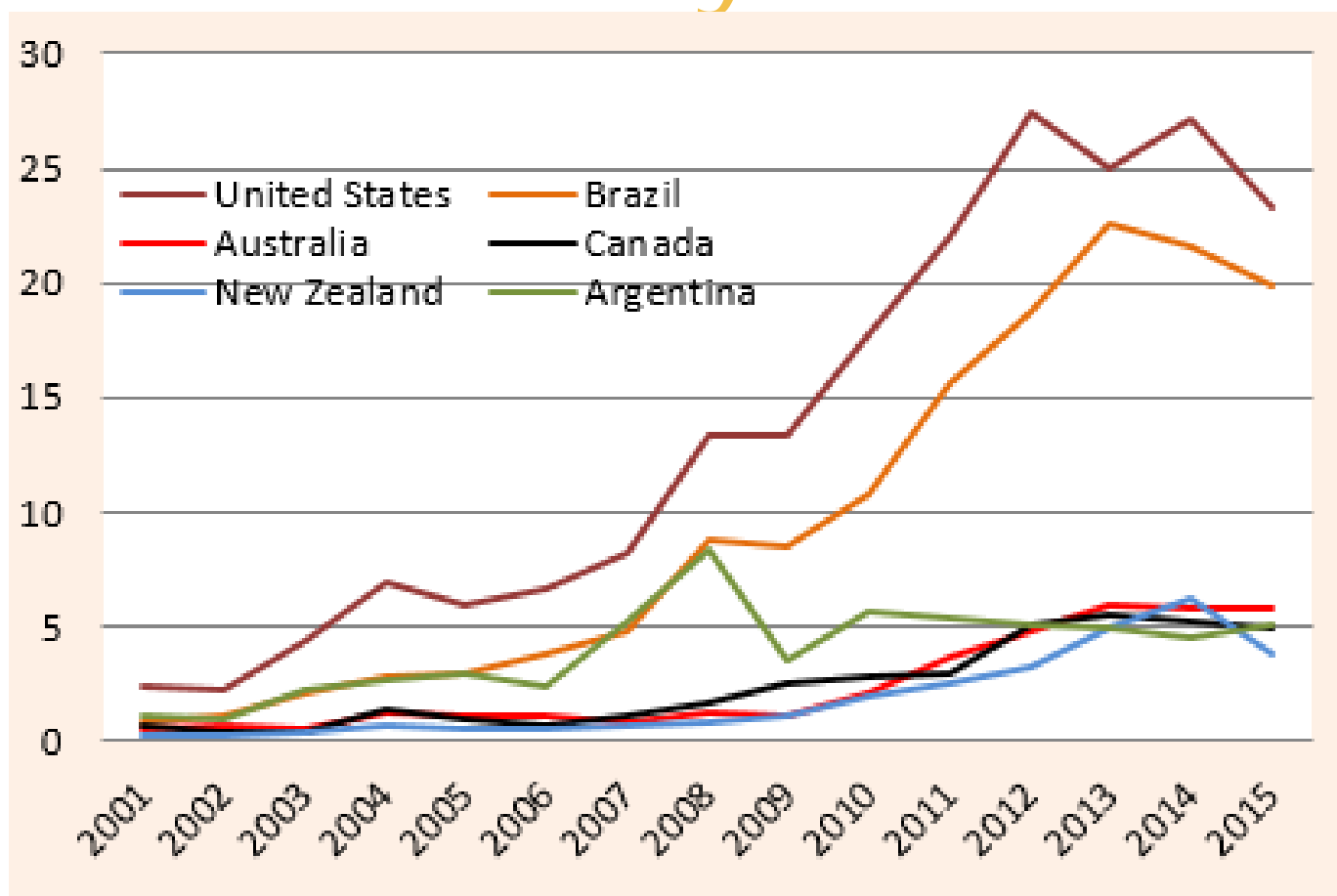
# China's Importance in U.S. and Iowa Ag Trade



# US Ag Exports by Destination Country 2001-2016



# China's Ag Imports by Source Country 2001-2015





# China, U.S. reach trade agreement on beef, poultry and natural gas



The agreement would also ease import restrictions on agricultural goods, including ending China's ban on beef imports that was imposed in 2003 after a case of mad-cow disease. The Bush and Obama administrations have sought for years to get it removed.

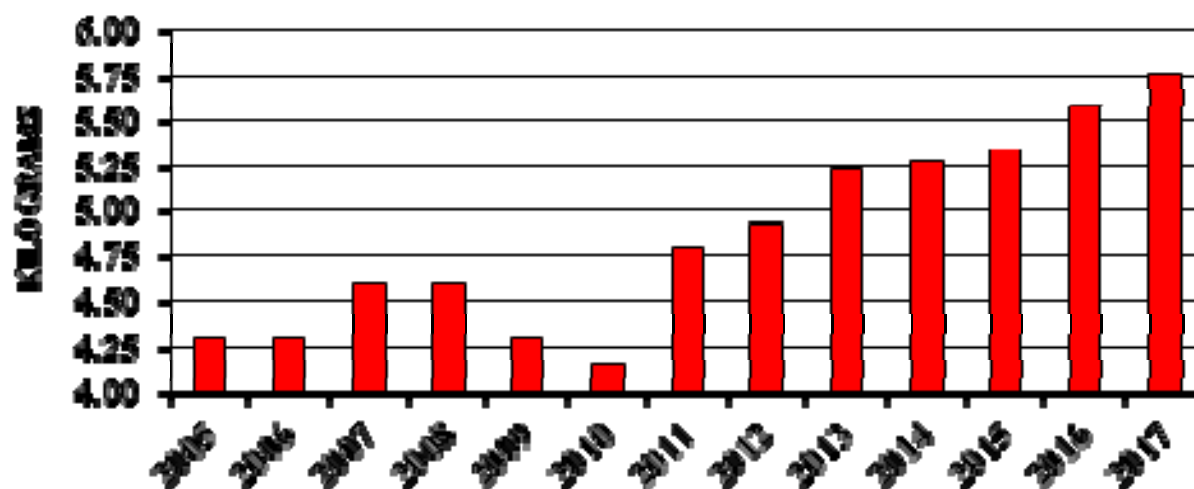
In exchange, the U.S. would allow the sale of cooked Chinese poultry — a move Ross said could be done safely. "We do not intend to endanger anybody's health or safety in the U.S.," he said.

The agreement would also streamline the evaluation of pending U.S. biotechnology product applications; pave the way for allowing American-owned suppliers of electronic payment services to begin the licensing processes in China and facilitate the entrance of Chinese banks into the U.S. banking market, among other measures.

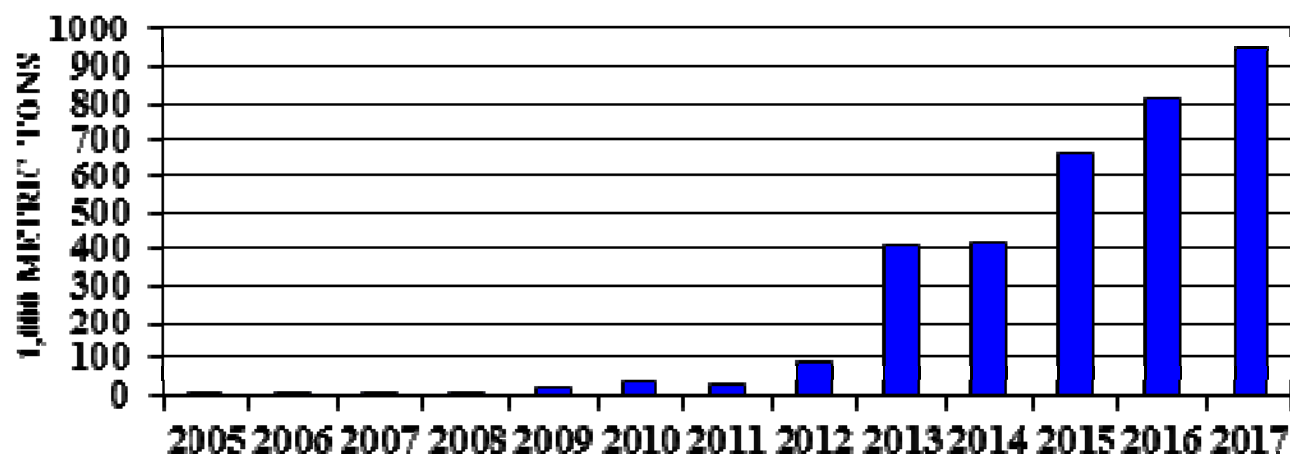
# USDA Secretary Sonny Perdue's comments

- “This is tremendous news for the American beef industry, the agriculture community, and the U.S. economy in general. We will once again have access to the enormous Chinese market, with a strong and growing middle class, which had been closed to our ranchers for a long, long time. .... When the Chinese people taste our high-quality U.S. beef, there's no doubt in my mind that they'll want more of it”

**Figure 1. China: Per Capita Beef Consumption**

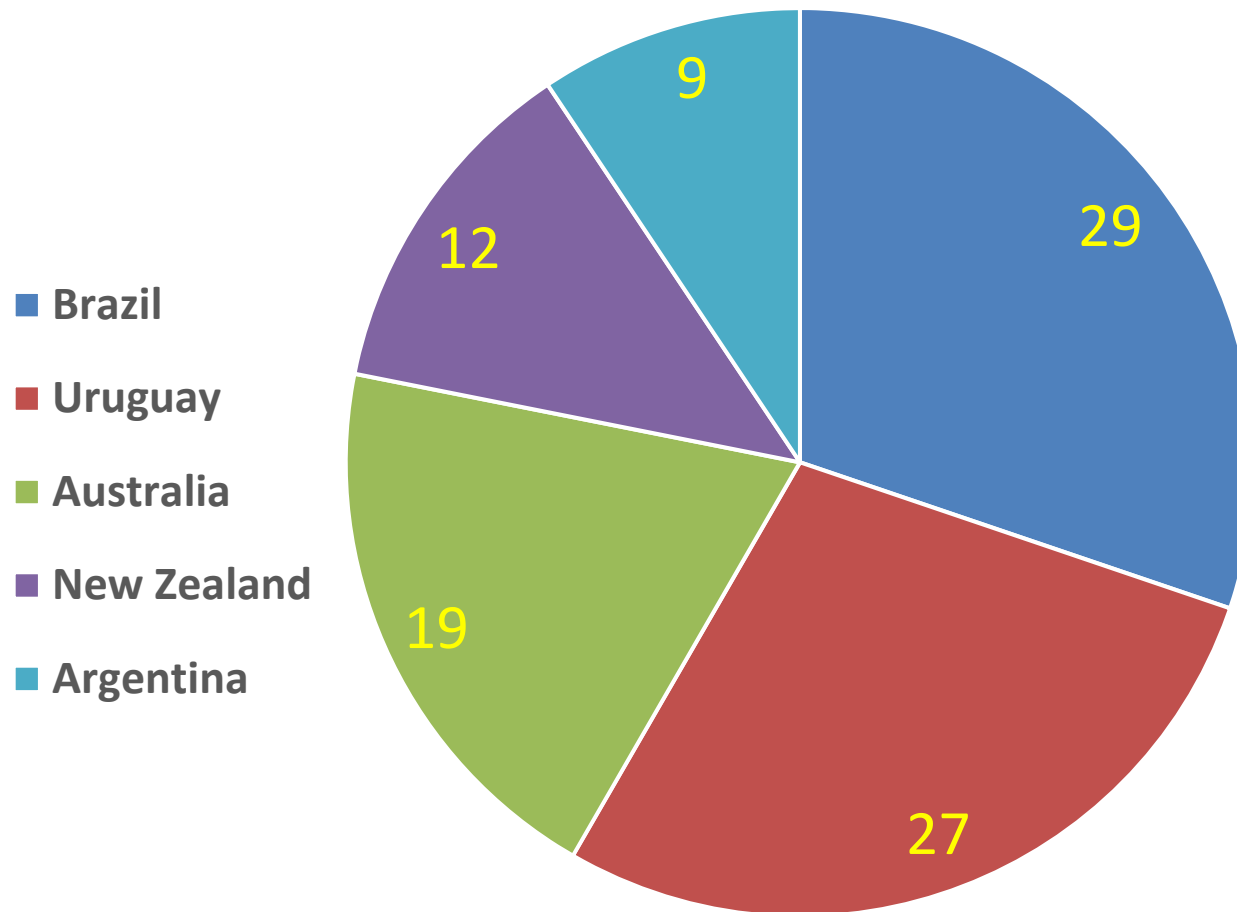


**Figure 2. China: Beef Imports**





## 2016 Major Beef Suppliers to China (%)



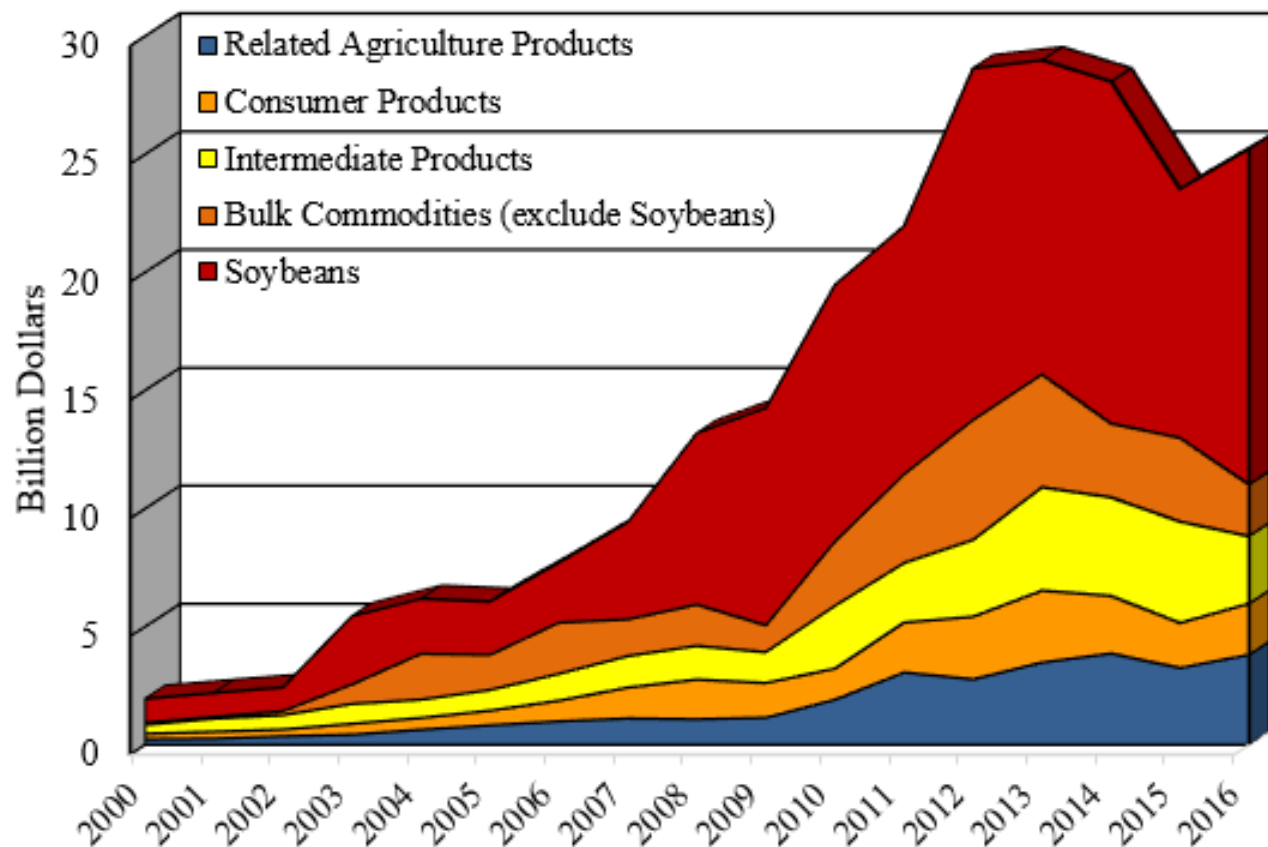
**Before 2012: China imports 0.5% of global beef**  
**In 2017: 12% (950K MT)**

**2016 total US beef export: 1190K MT**

**Potential additional 1-3% boost to US beef exports**

**2002: US has 12K MT Beef Export to China**

# US Ag Exports to China Increased Significantly since China joined WTO in 2001



# China vs. US

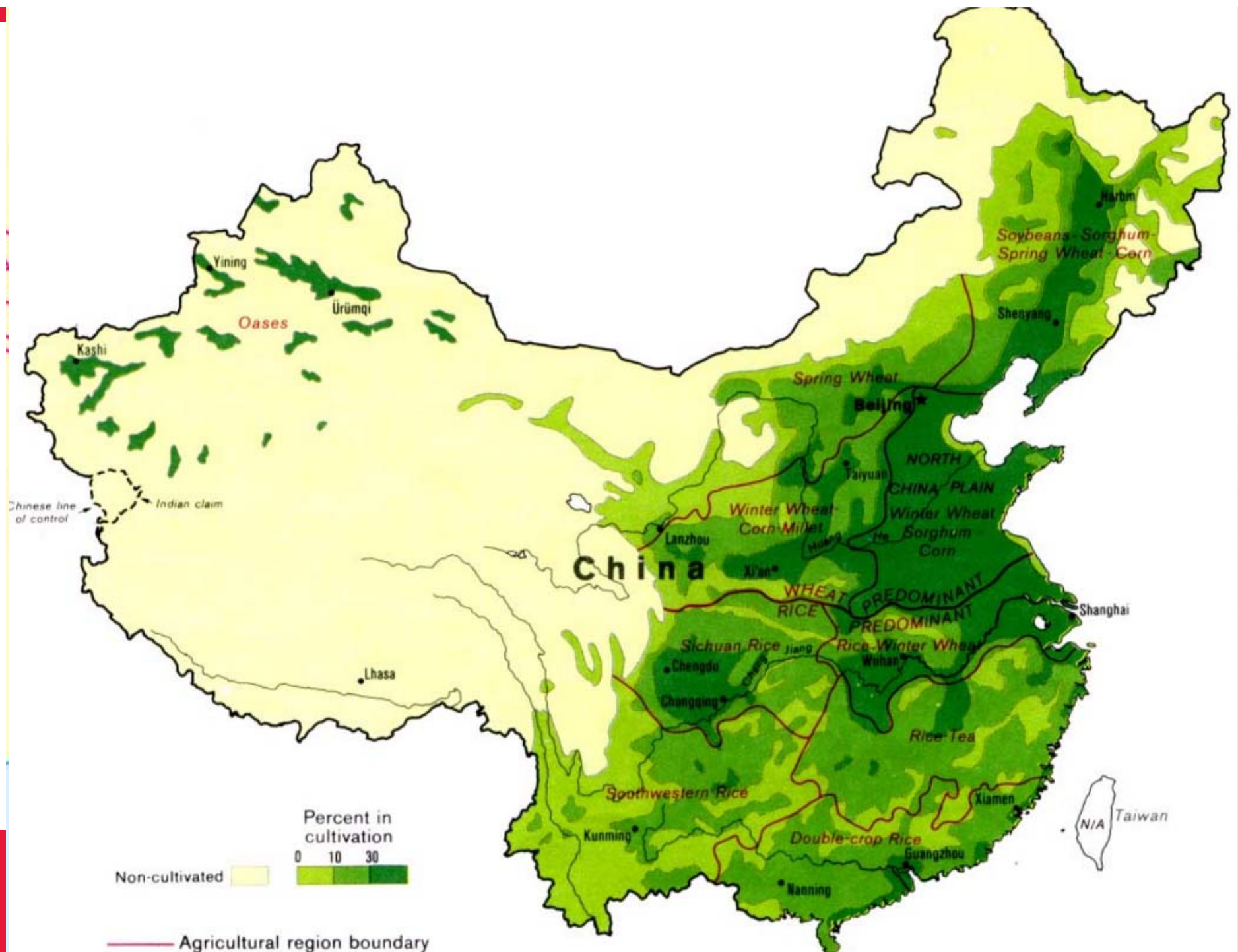
*prev*

	China	US
Total Population	1350.4 million	318.9 million
Gross agricultural production	555.2 billion \$	232.4 billion \$
Share of Agriculture in Total GDP	10.0%	1.3%
Share of Agriculture in Employment	35.0%	2.0%

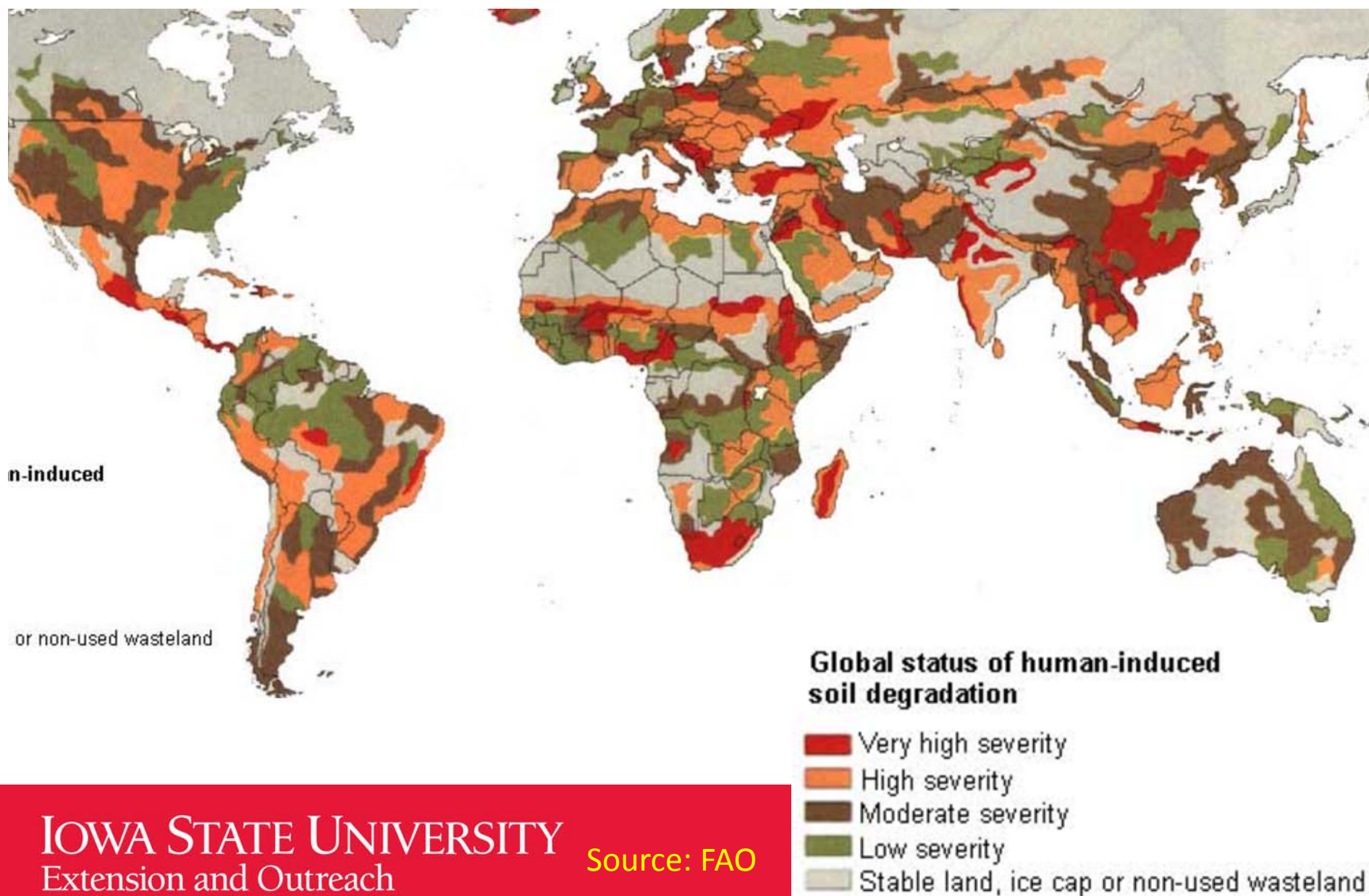
	China	US
Number of Farmers	241.7 million	3.2 million
Number of Farms	200.2 million	2.1 million
Total Farmland Area	406.8 million acres	914.5 million acres
Corn Production Area	89.7 million acres	87.4 million acres
Soybean Production Area	16.9 million acres	76.3 million acres
Wheat Production Area	59.6 million acres	45.3 million acres
Total Size of Vegetable/Herb Greenhouses	83.6 million sq.ft.	61.8 sq.ft.
Average Farm Size	2.0 acres	433.6 acres



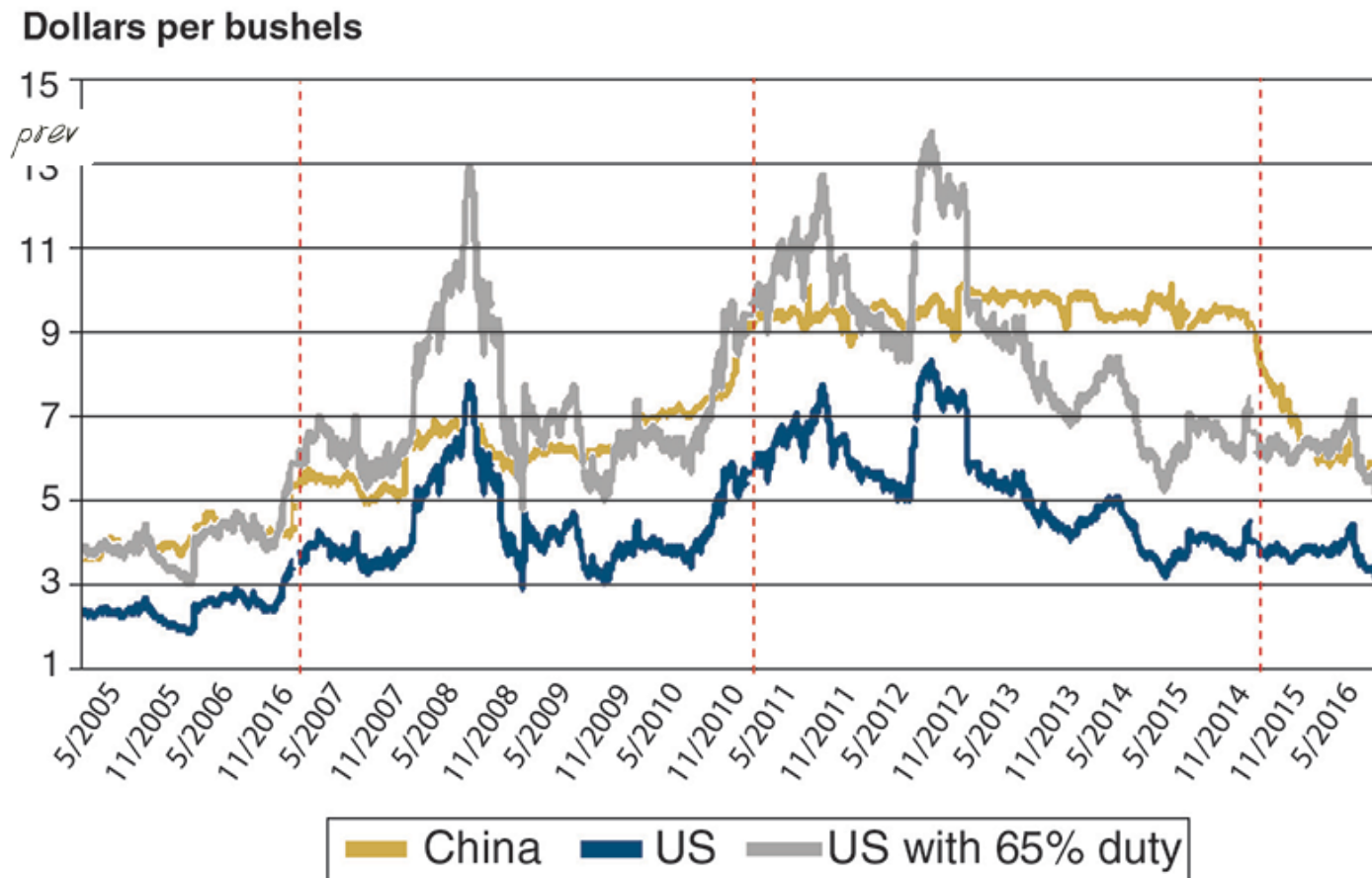




# World soil degradation map



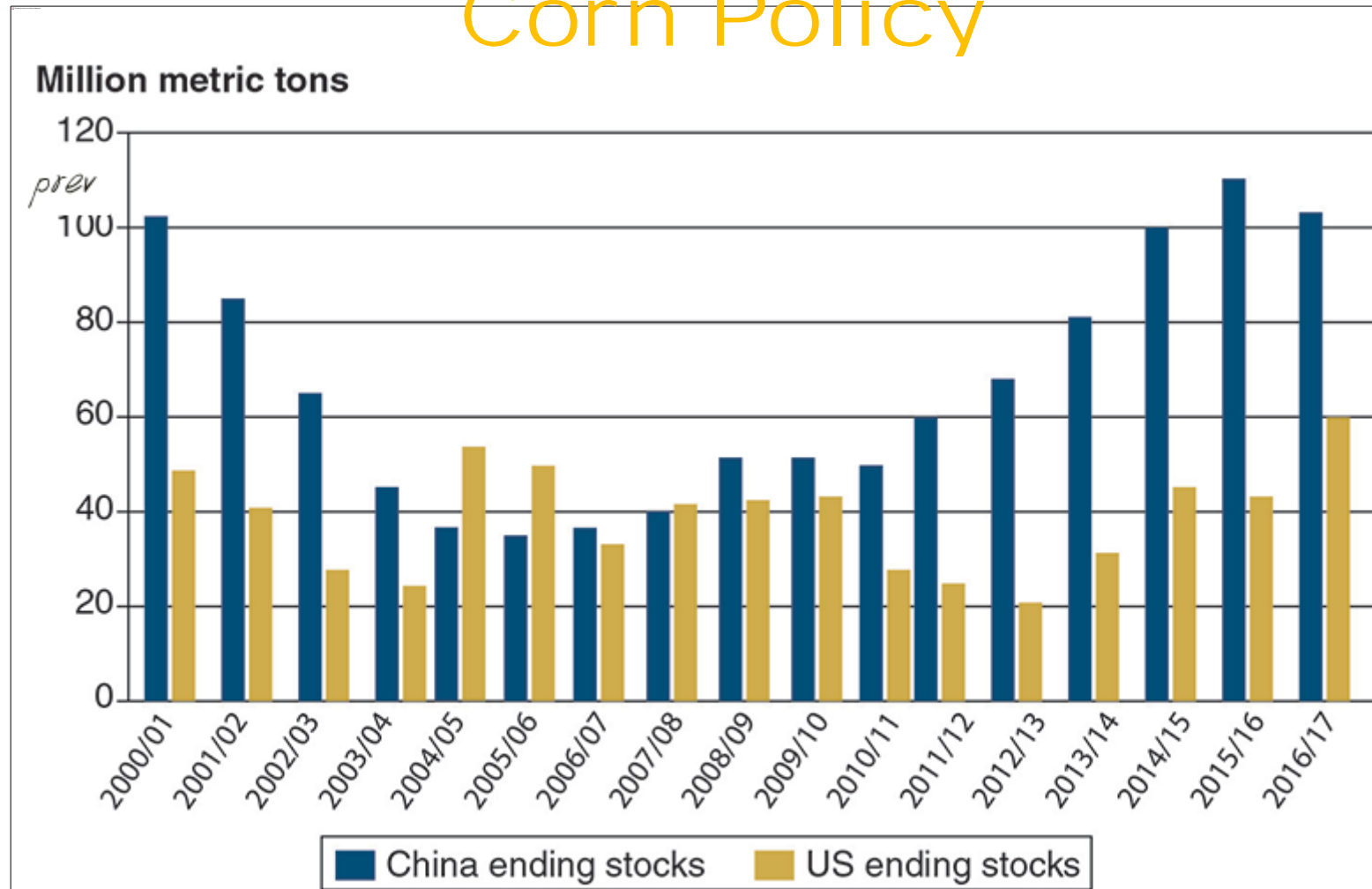
# Of Maize and Markets: China's New Corn Policy



Source: <http://www.quandl.com/>



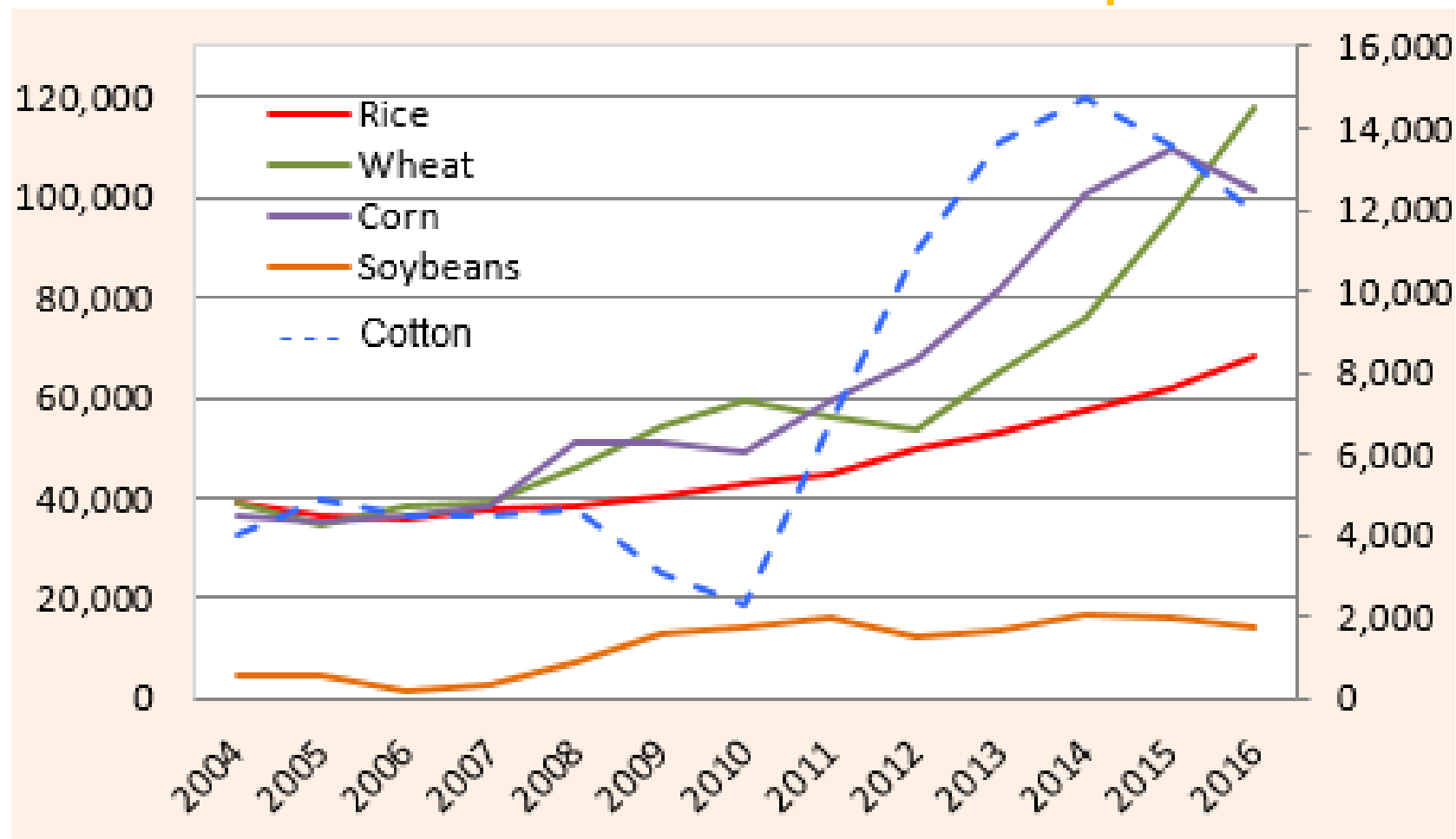
# Of Maize and Markets: China's New Corn Policy



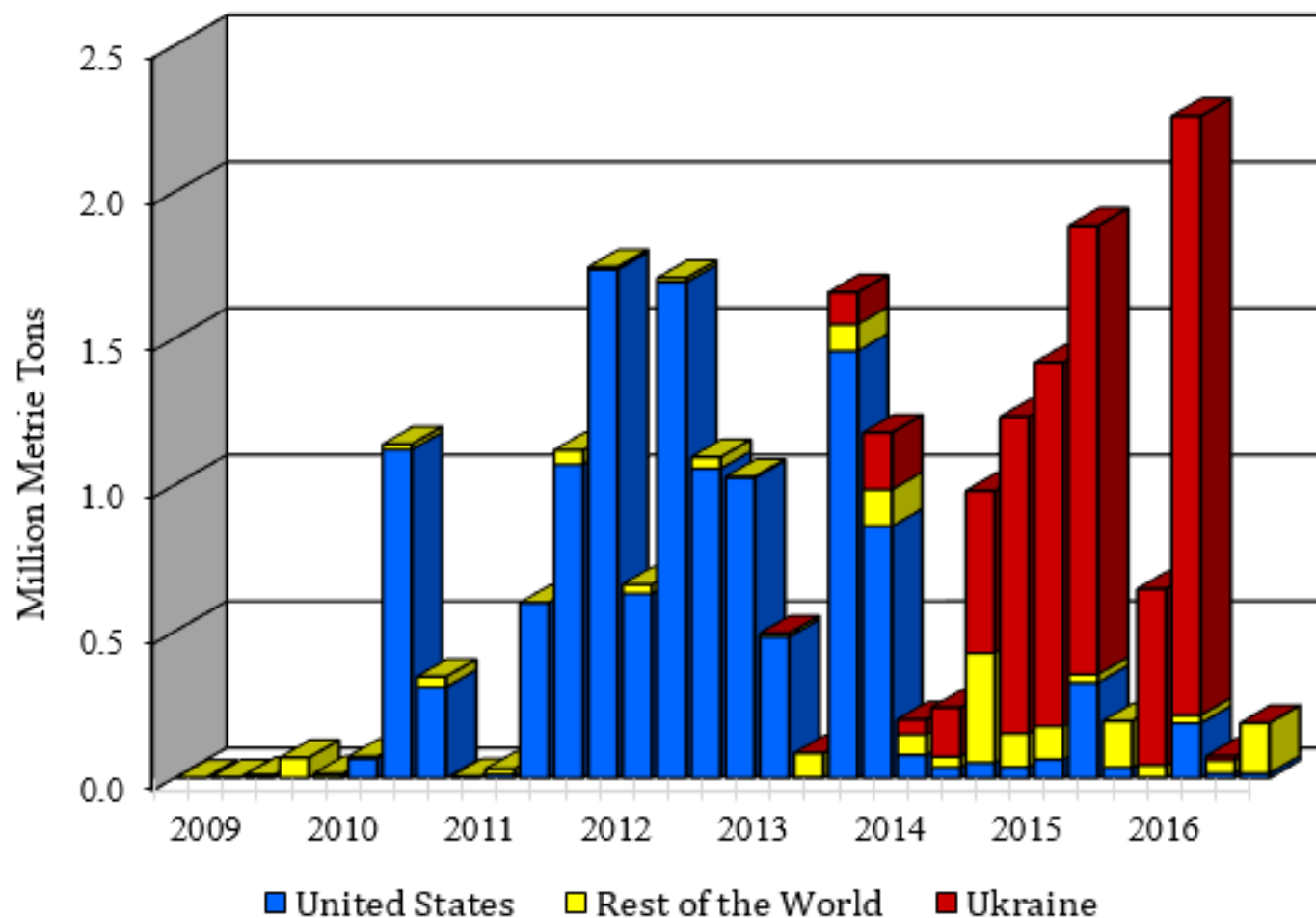
Source: USDA FAS Grain: world markets and trade



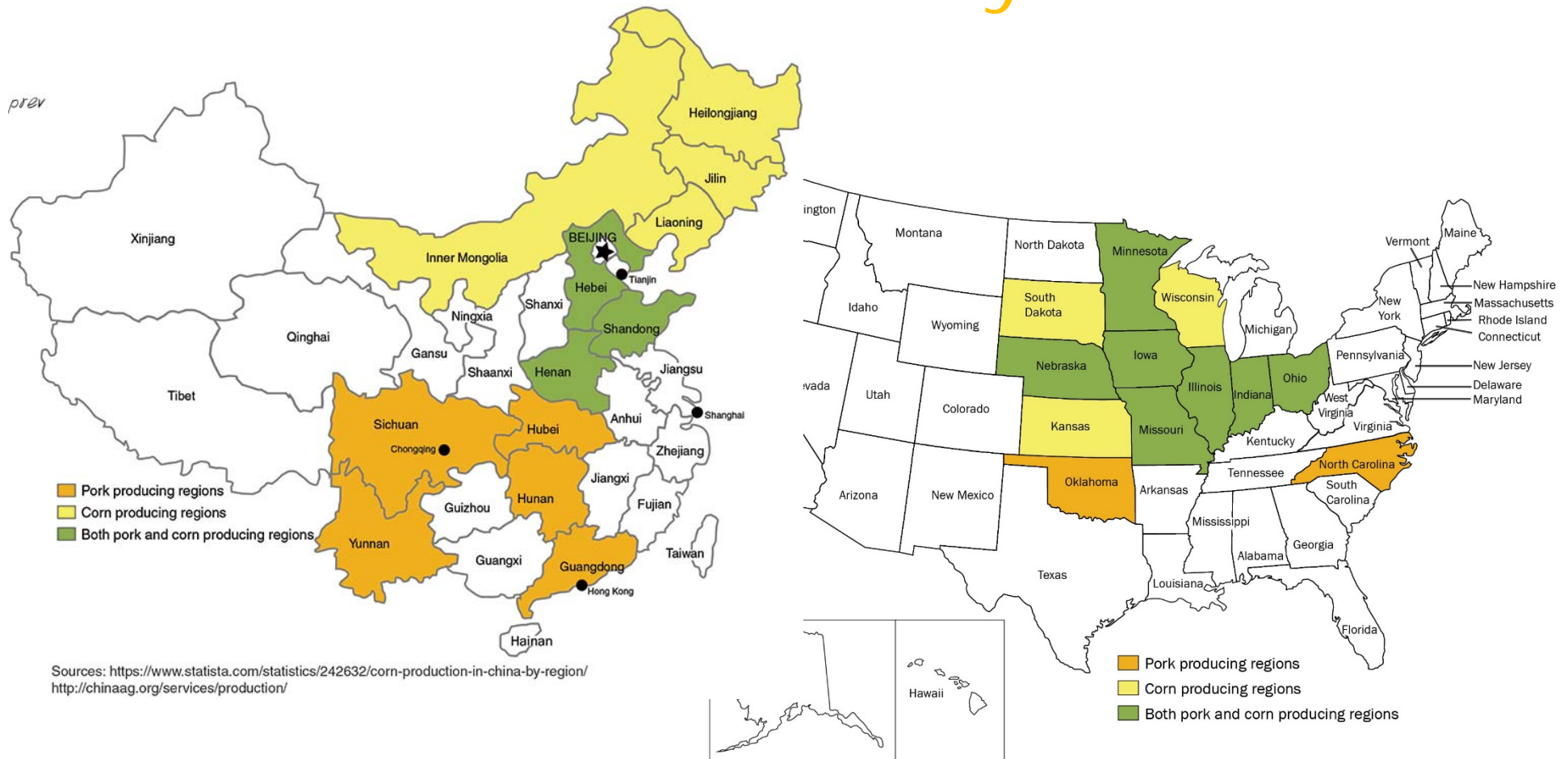
# China's Stockpiles of Major Ag Commodities Oct 2004-Sept 2016



# US Exporters of Corn to China hurt by China's efforts to diversify import suppliers



# Of Maize and Markets: China's New Corn Policy

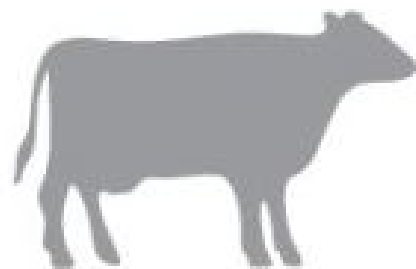


# MILK PRODUCTION IN CHINA

The map displays the following milk production data by province:

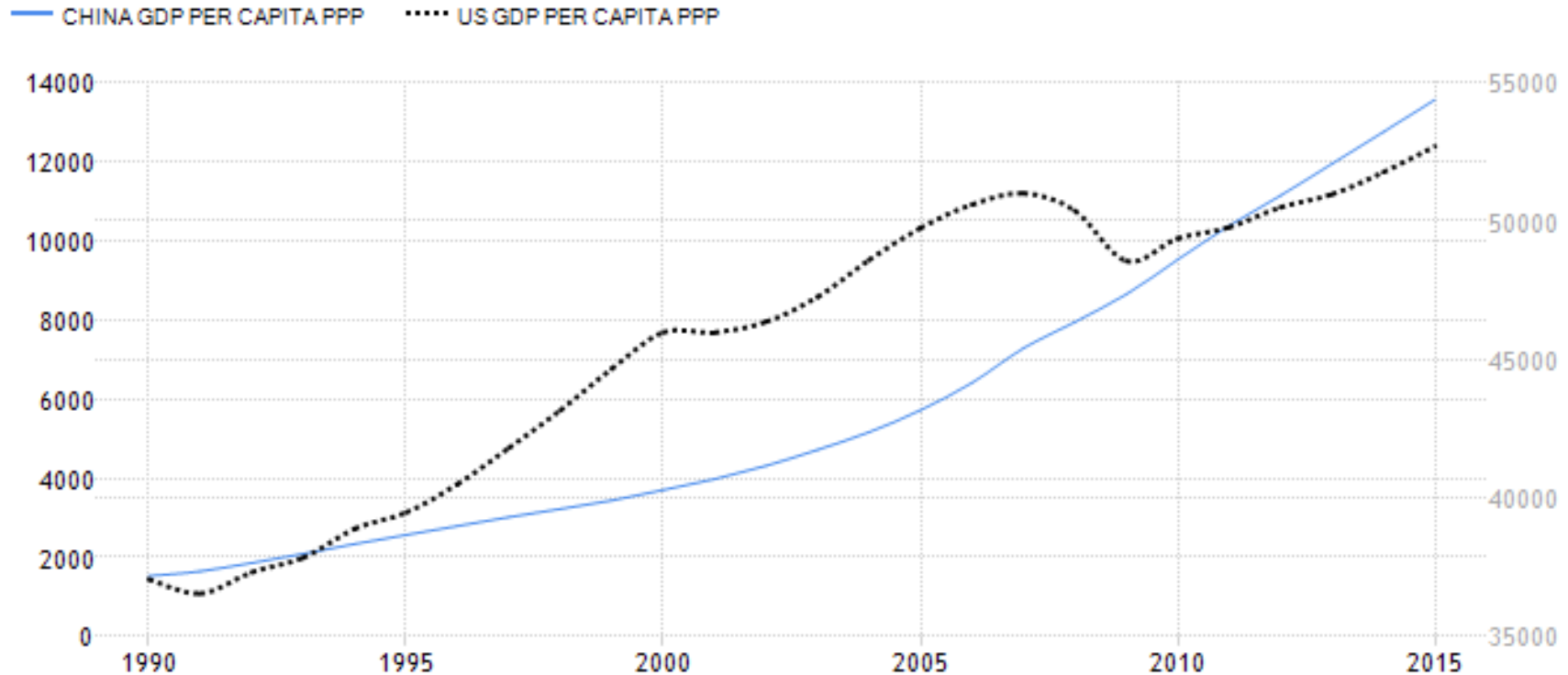
Province	Production (10,000 tons)
Heilongjiang	4,100
Inner Mongolia	11,200
Shandong	3,900
Henan	3,600
Shaanxi	1,400
Xinjiang	1,700
Liaoning	1,100
Hebei	6,200
Ningxia	800
Tianjin	8

Other provinces shown on the map include Gansu, Qinghai, Tibet, Shanxi, Jiangsu, Anhui, Hubei, Sichuan, Chongqing, Hunan, Jiangxi, Fujian, Guangdong, Guangxi, Yunnan, and Hainan.



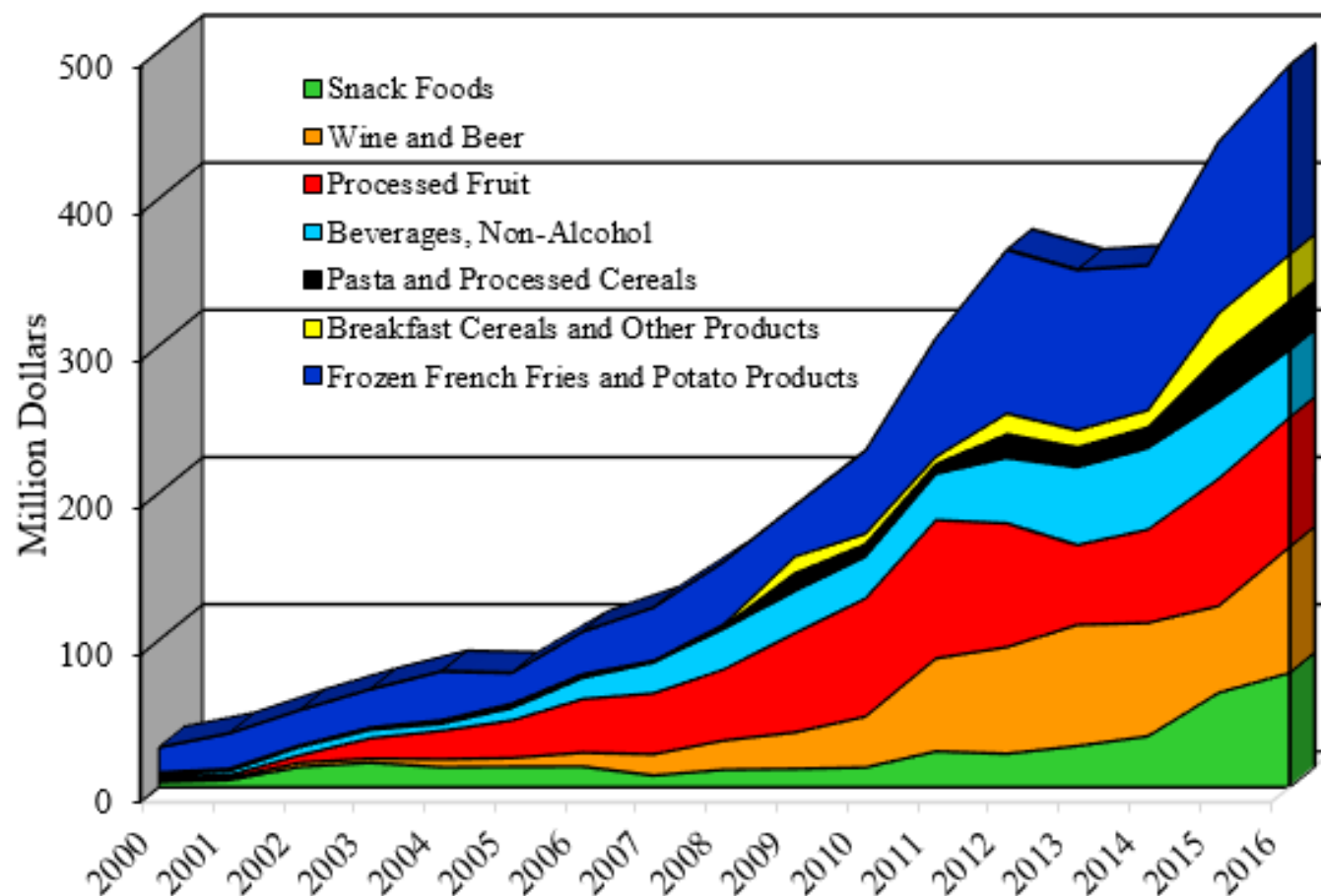


# Richer households demand more meat and convenience foods

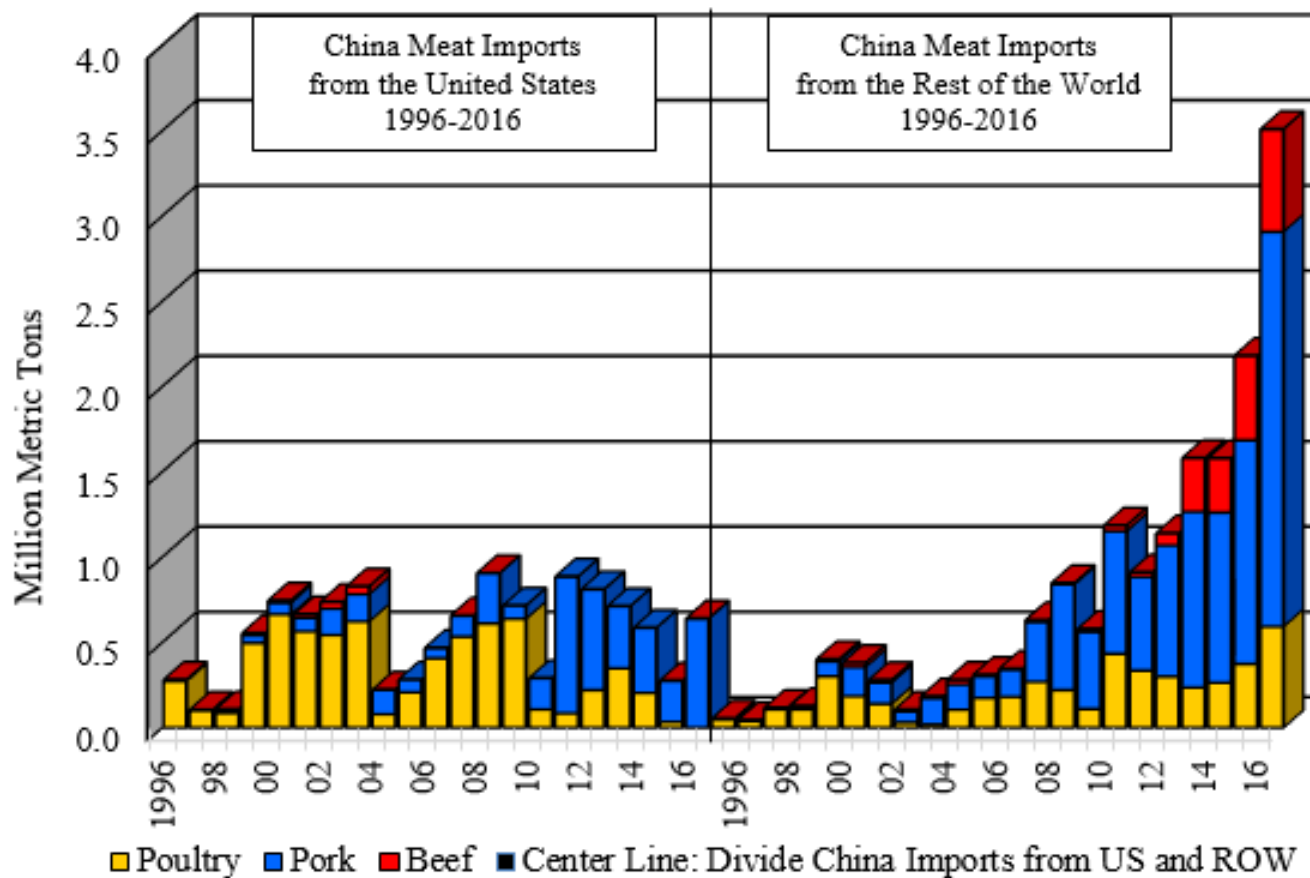


SOURCE: TRADINGECONOMICS.COM

# Richer households demand more meat and convenience foods



# US Loses Market Share as China Increases Meat Imports from the World



# CHOICES

## U.S. Commodity Markets Respond to Changes in China's Ag Policies

### China's Evolving Agricultural Support Policies

Mina Hejazi and Mary A. Marchant

### U.S. Agricultural Exports to China Increased Rapidly Making China the Number One Market

James Hansen, Mary A. Marchant, Francis Tuan, and Agapi Somwaru

### Food Security in China from a Global Perspective

Funing Zhong and Jing Zhu

### The WTO Dispute on China's Agricultural Supports

David Orden, Lars Brink and Mina Hejazi



# GMO in China

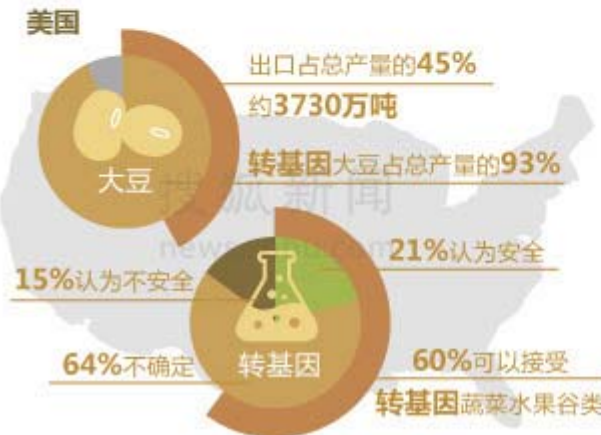
## 转基因产品有哪些？

新京报制图/师春



## 转基因大豆油占我国九成市场

搜狐新闻  
news.sohu.com



# GMO in China: Controversy/Divide **China Wants GMOs. The Chinese People Don't.**

**BloombergView**

73 SEP 27, 2016 8:00 PM EDT

▶ **After Decades Of Wariness, China To Grow GMOs**



The Chinese have long been wary of genetically modified organisms. The country allows imports of genetically modified corn and soybeans for animal feed. But it's held off on domestic commercialization of those crops.

Over the past year, China has signaled it would relax that stance. This week it released its latest five-year plan for science and technology, saying it would push for the commercialization of biotech corn and soybeans in the next few years.



# GMO in China: Controversy/Divide



Yongyuan  
Cui

Larry King  
in China;  
Key  
opponent  
voice  
of GMO



GMO corn illegal

# Crop Insurance in China

world's 2<sup>nd</sup> largest market 2007-2014

	2007	2014
Acres Covered for major crops (US acres)	37.9 million	182.2 million Corn: 67.3% Rice: 64.9% Wheat: 61.8%
Premiums (US \$)	0.69 billion	5 billion
# Households Insured		214 million
Indemnity Paid (US \$)		3.4 billion

2013 flood in Heilongjiang: paid \$900 per household, 62% of annual average income;  
59.7% insured households get payments



# Crop Insurance in China

world's 2<sup>nd</sup> largest market 2007-2014

## How it works now?

- Insures based on production cost
- Pay-up coverage level: 75% of production cost
- Risk covered: weather (not market)
- Vegetable, pork price loss insurance trial
- 2<sup>nd</sup> insurance market (similar to FarmerMac)

## Future developments/trials

- Weather-based index insurance
- Price-based index insurance
- Yield/revenue-based insurance

# Chinese Co-Op

## No-longer the Soviet -style

### **Before 2007**

- Supply and marketing cooperatives
- State-dominated semi-governmental with little or no farmer voice or choice

### **Nowadays**

- In 2008: 24.6 million HHs – 10% of all rural HHs
- In 2008: 180,000 registered cooperatives
- 9.9 million formal members – could vote, paid fee
- 13.9 million informal members – loosely associated

# Chinese Co-Op

## No-longer the Soviet -style

### 2007 Cooperative Law

**Promotes economic collaboration among smallholder farmers to create economies of scale and set up more regularized supply channels**

- Offers exemption of VAT payments on inputs sold to members
- 13% VAT discount on purchases from cooperatives
- Require 80% of members are farmers
- <http://www.lawinfochina.com/display.aspx?lib=law&id=5614&CGid=>

# Chinese Co-Op

## No-longer the Soviet -style

### How it works

**Objective: “make markets work for the poor”**

**Joint procurements of inputs & collective marketing of outputs**

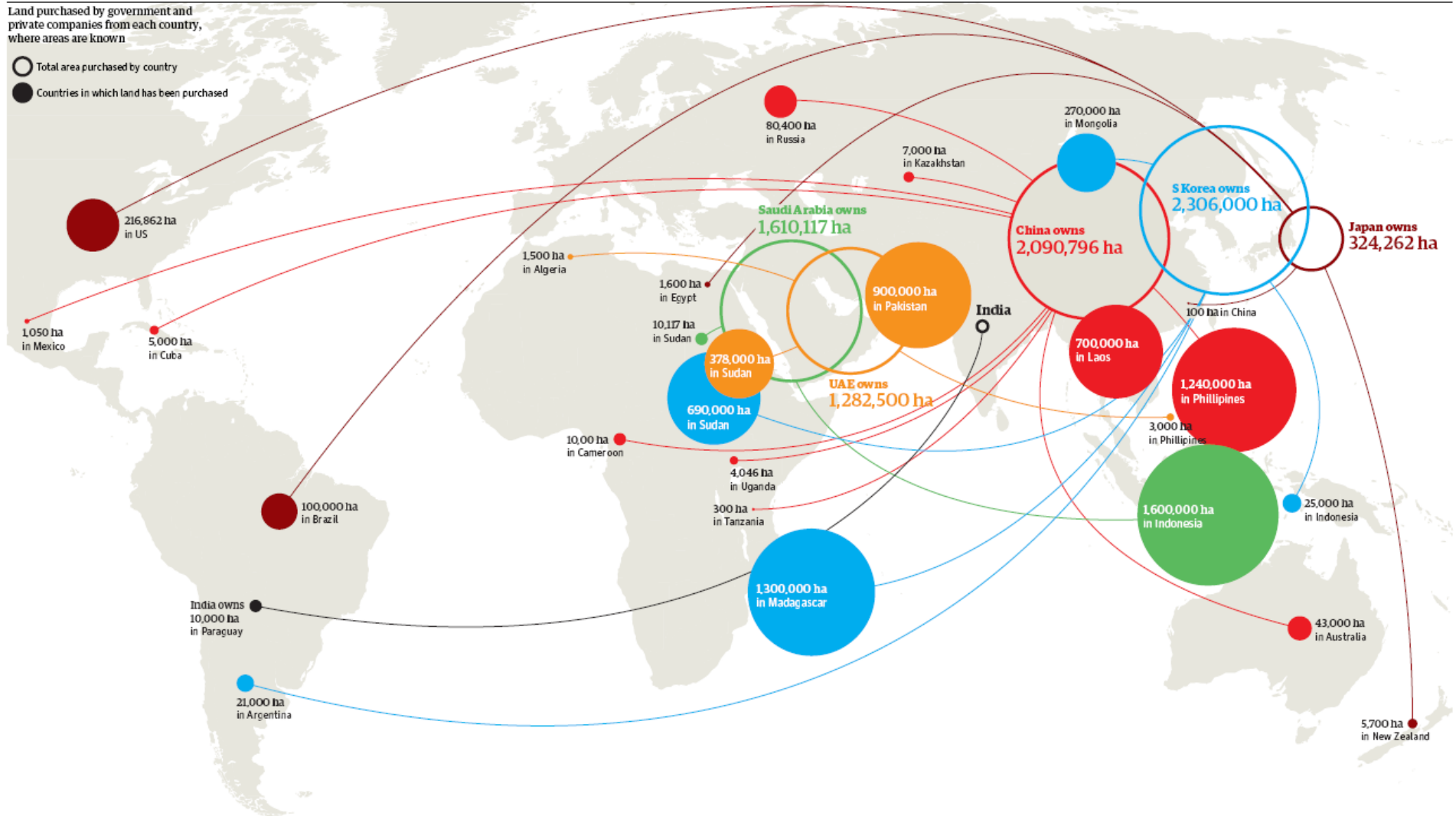
- 74% provide information, tech, inputs to members
  - 7% offer credit service
  - 22% cooperatives sell produce of members collectively
  - 40% coordinate market transactions
  - 15% provide certification of a trademark
  - Negotiate with supermarkets – vegetables & pig
  - Some have own processing plants [e.g., corn starch, noodles]
- Less common type: community-based, diversified co-op, CSA, organic

# China's overseas investment in farmland worldwide

## World land grab

Land purchased by government and private companies from each country, where areas are known

- Total area purchased by country
- Countries in which land has been purchased



SOURCE: GRAIN.ORG

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Source: the Diplomat

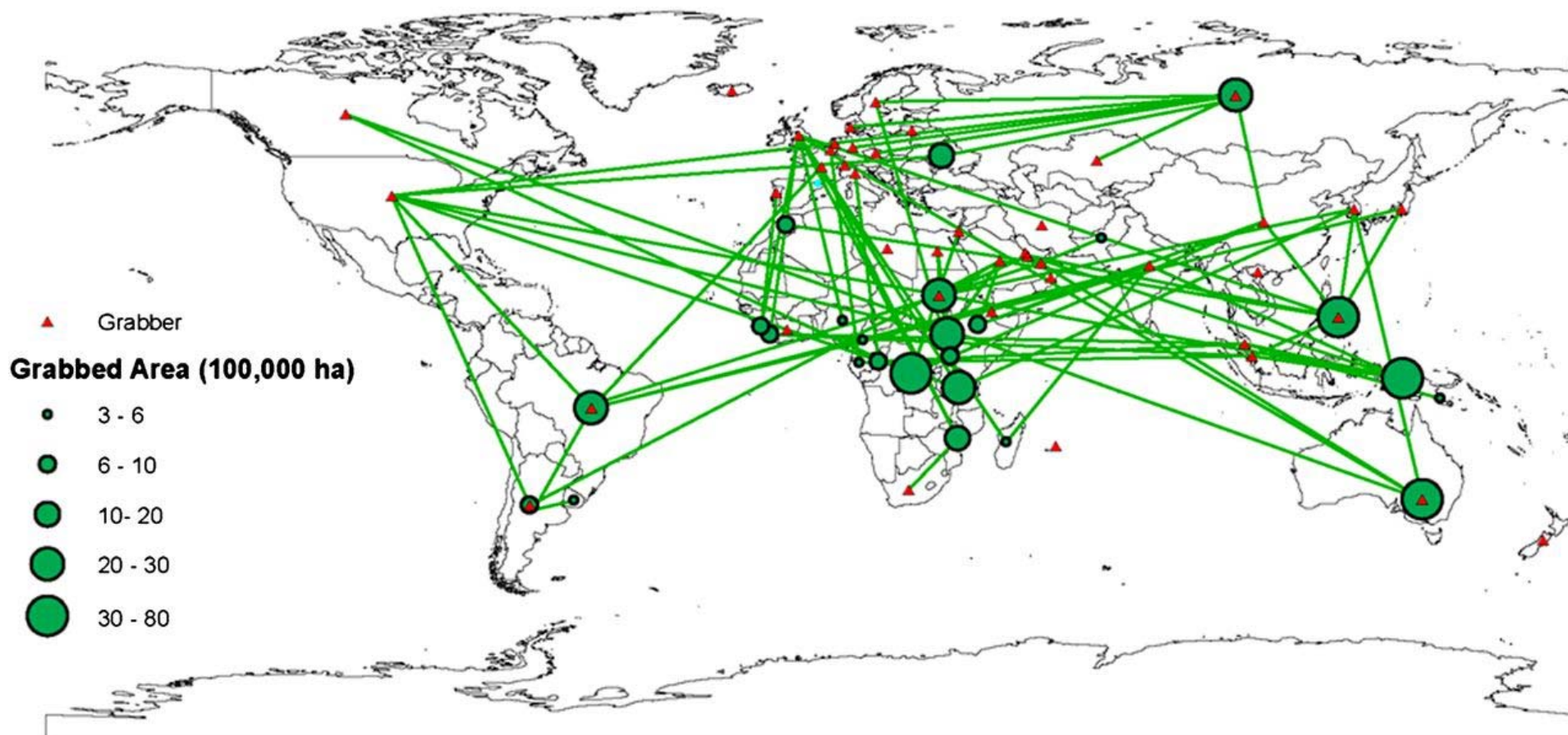


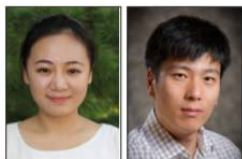
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Center for Agricultural and Rural Development



# Global Land Grab - 2012





## Of maize and markets: China's new corn policy

By Qianrong Wu, economics graduate student, [qianrong@iastate.edu](mailto:qianrong@iastate.edu); Wendong Zhang, extension economist, [wdzhang@iastate.edu](mailto:wdzhang@iastate.edu)

2017

美国农业大州爱荷华州的农畜产品在世界市场上长期占据重要地位，现任州长特里·布兰斯塔德已被特朗普政府提名为下一届驻华大使。爱荷华州立大学中国留学生对中国玉米产业政策的一份研究报告获得州农业部长Bill Northey 的推荐转发，芝华特对此深度报告进行了翻译整理。

玉米与市场：谈中国的新玉米政策

作者：Qianrong Wu Wendong Zhang

翻译：芝华数据 李佳璇

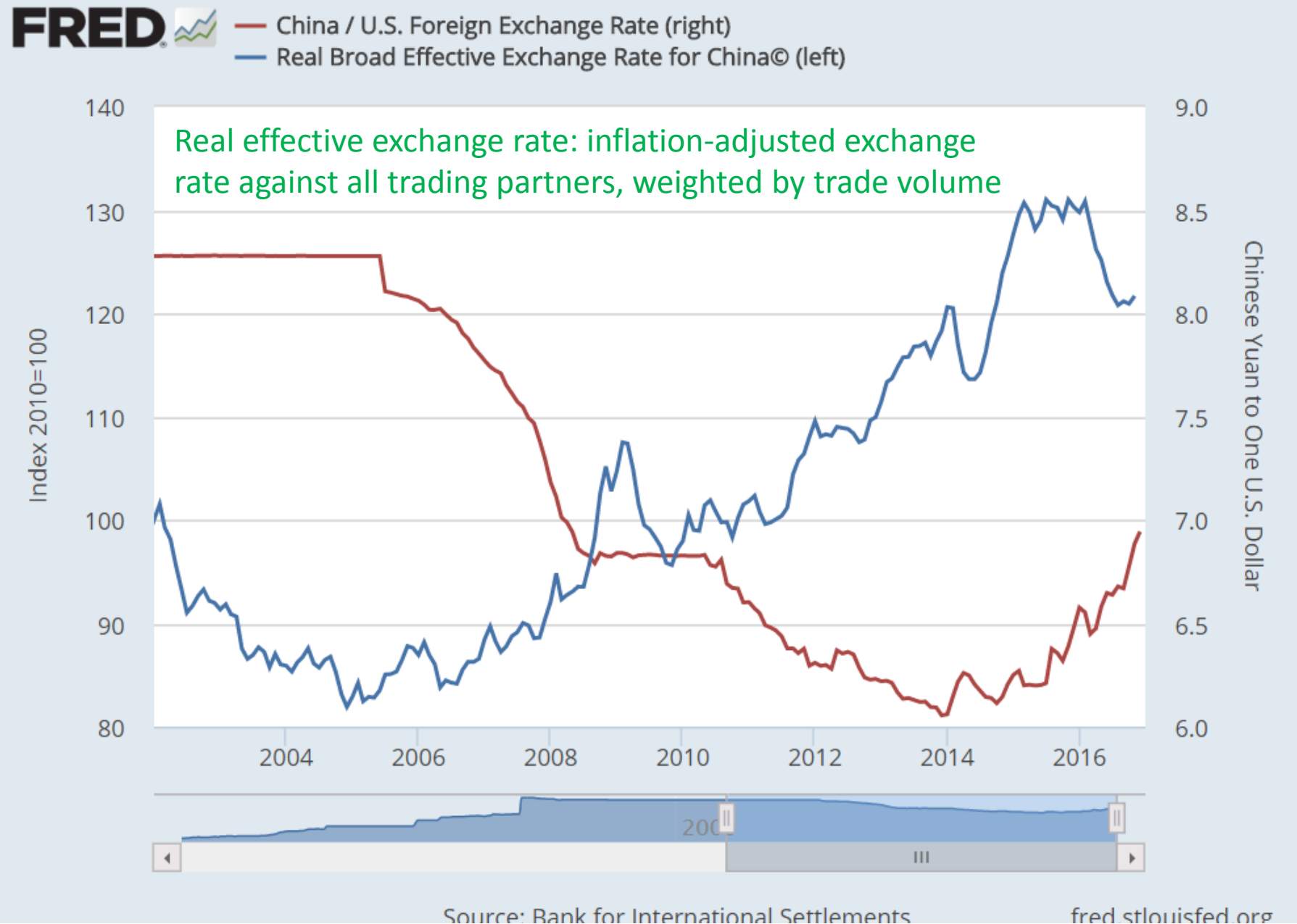


# Federal Reserve raises interest rates for second time in a decade, expects 3 hikes in 2017

The Washington Post

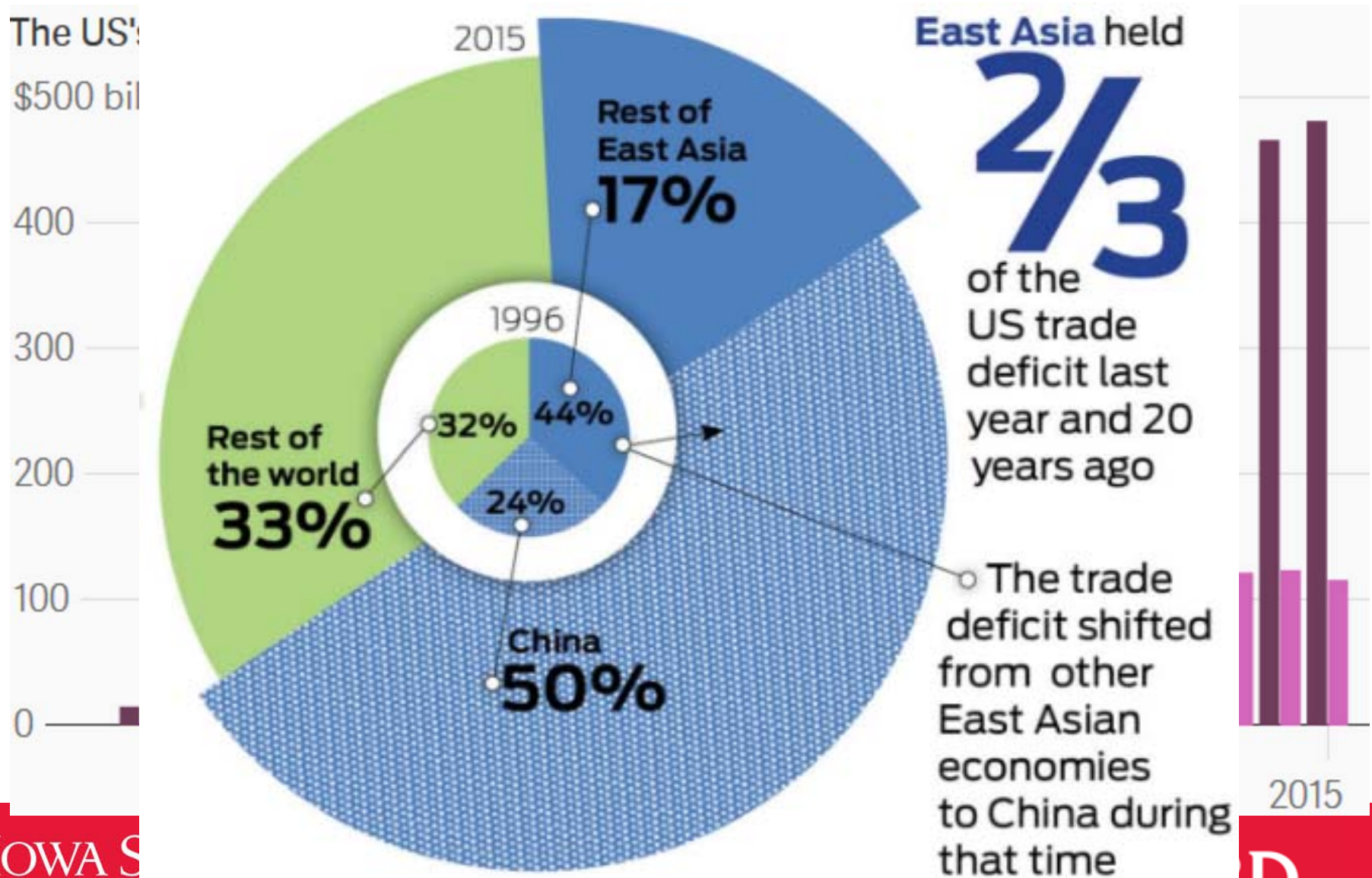
By Jim Tankersley December 14 at 3:30 PM

# Is China a Currency Manipulator?

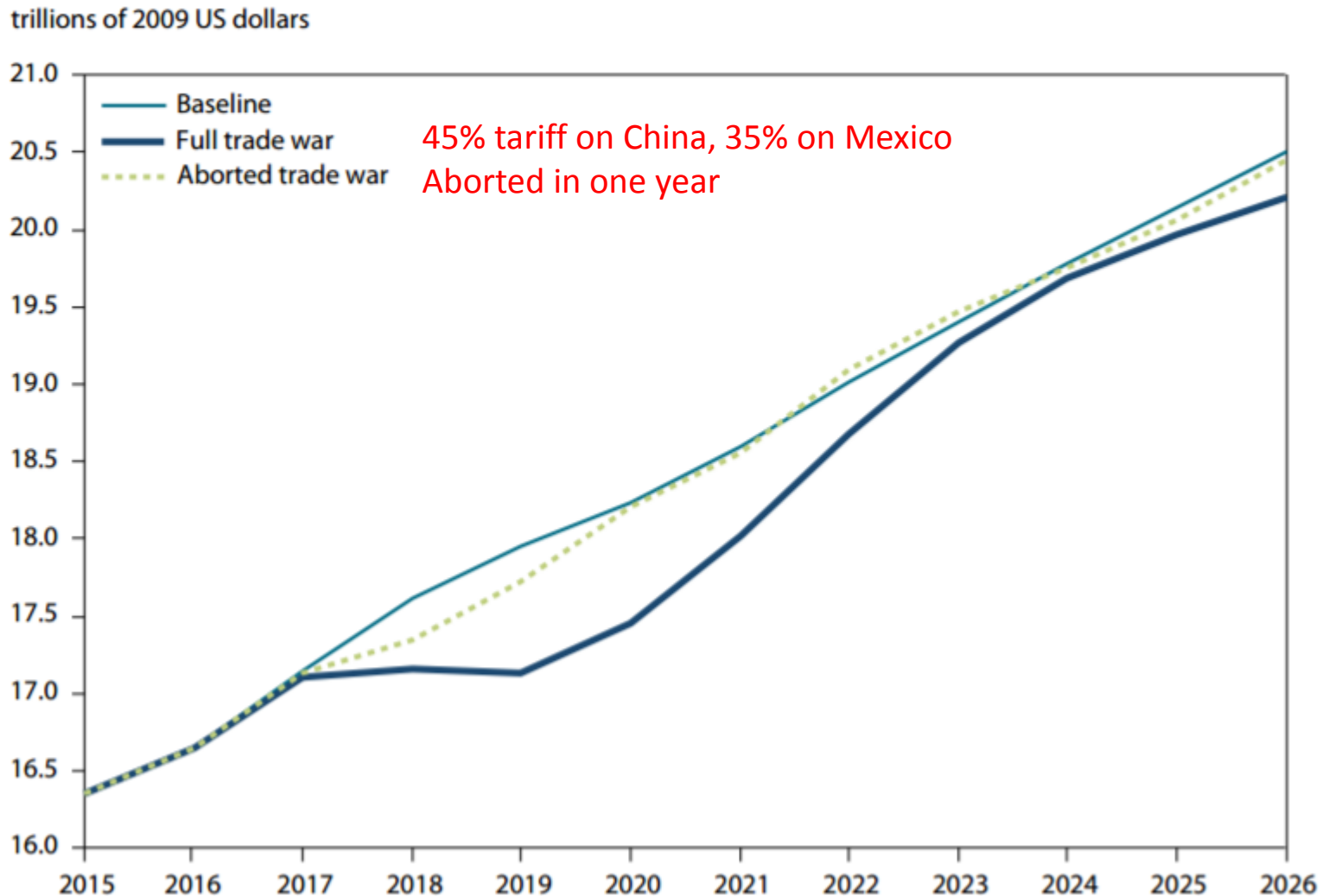




# Growing Trade deficit w China



**Figure 2.2 Projected US GDP under baseline, full trade war, and aborted trade war scenarios, 2015–26**

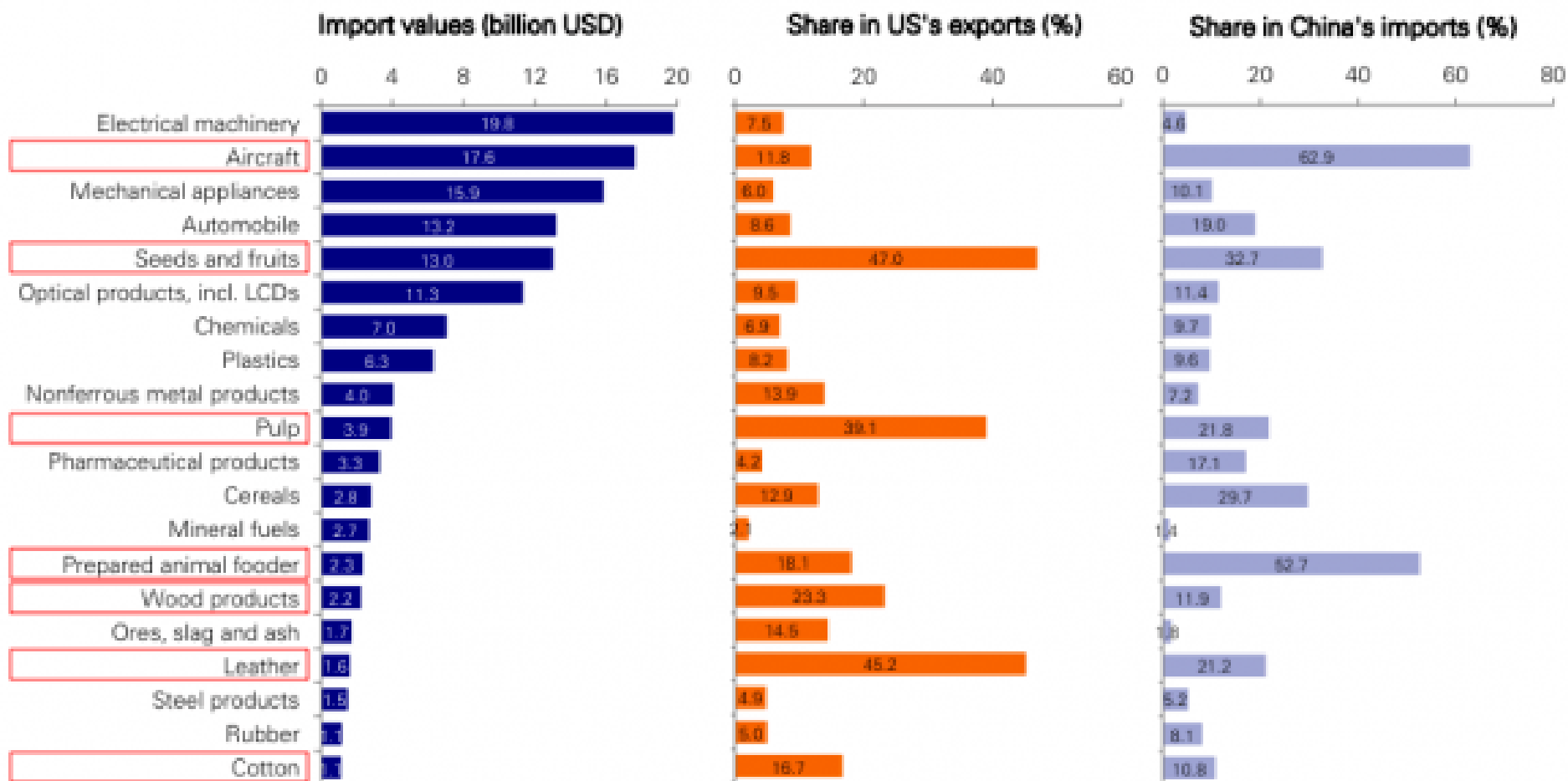


Impact of  
Trade War  
w China  
and  
Mexico on  
US  
economy



# U.S.-China trade war games?

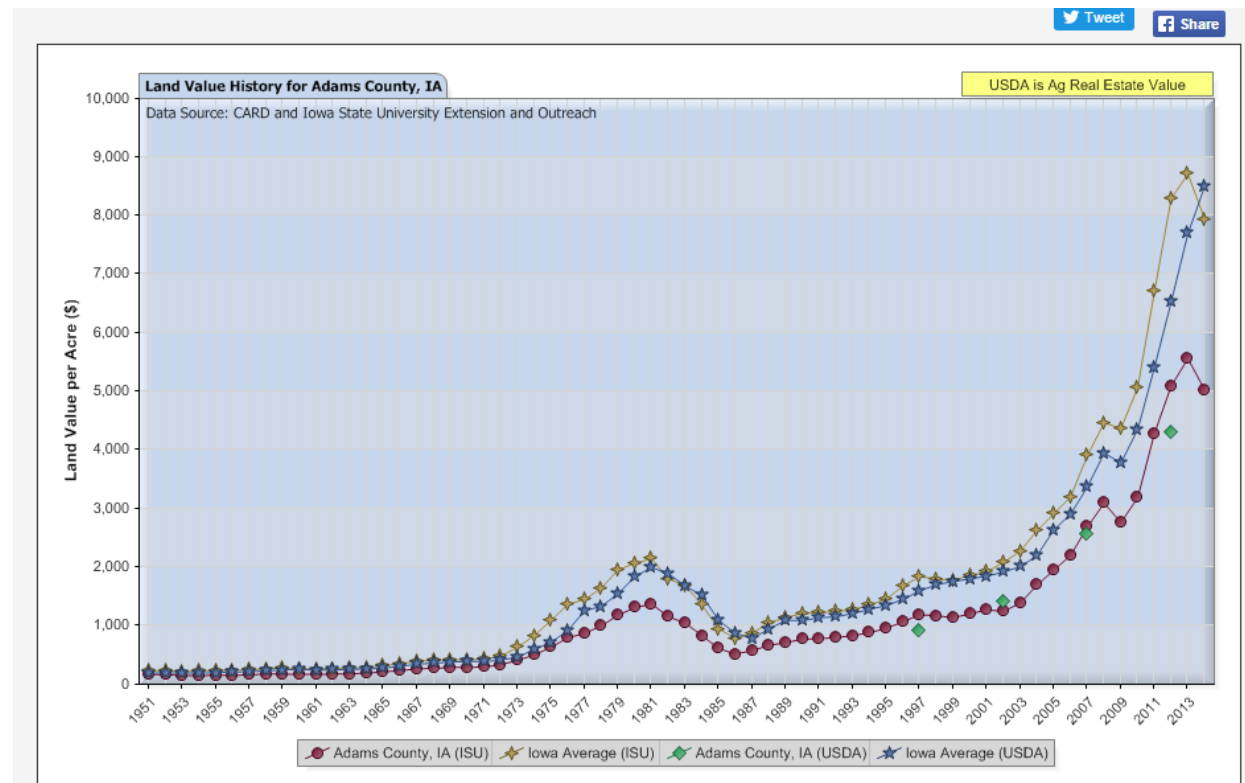
Figure 16: China's imports from the US, by sector, 2015



Source: Deutsche Bank, UN COMTRADE

# Iowa Farmland Value Portal

twitter  
#ISUland  
value



<http://card.iastate.edu/farmland>

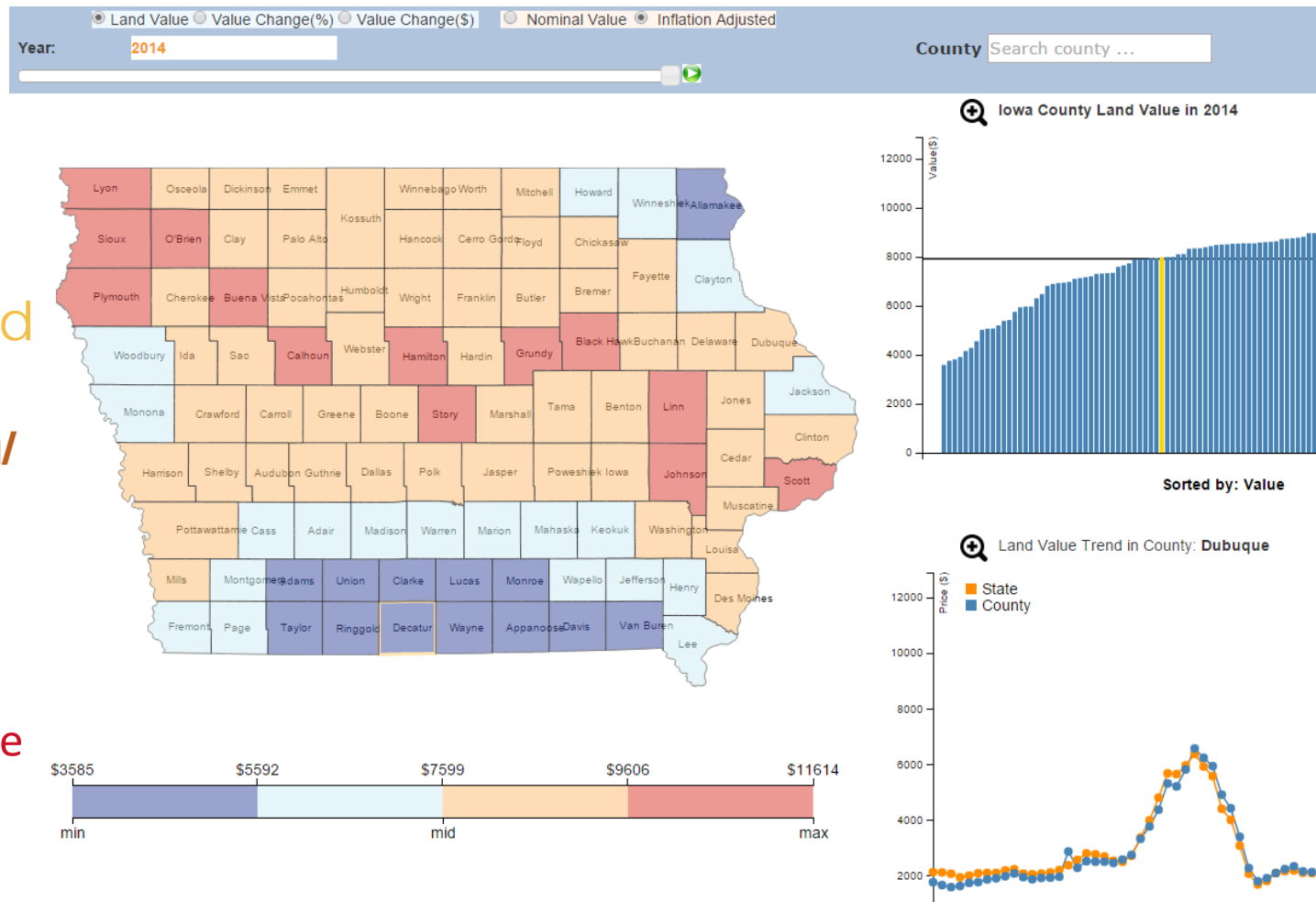
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# Iowa Farmland Value Portal

[www.card.iastate.edu/farmland](http://www.card.iastate.edu/farmland)

twitter #ISUlandvalue



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# Thank You!

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