

Ag Decision Maker

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Seven things to know about China to understand the trade war

By Wendong Zhang, extension economist, 515-294-2536, wdzhang@iastate.edu

Wendong Zhang

Assistant Professor and Extension Economist

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Farmer Mac Webinar

May 8th, 2019

IOWA STATE UNIVERSITY
Extension and Outreach



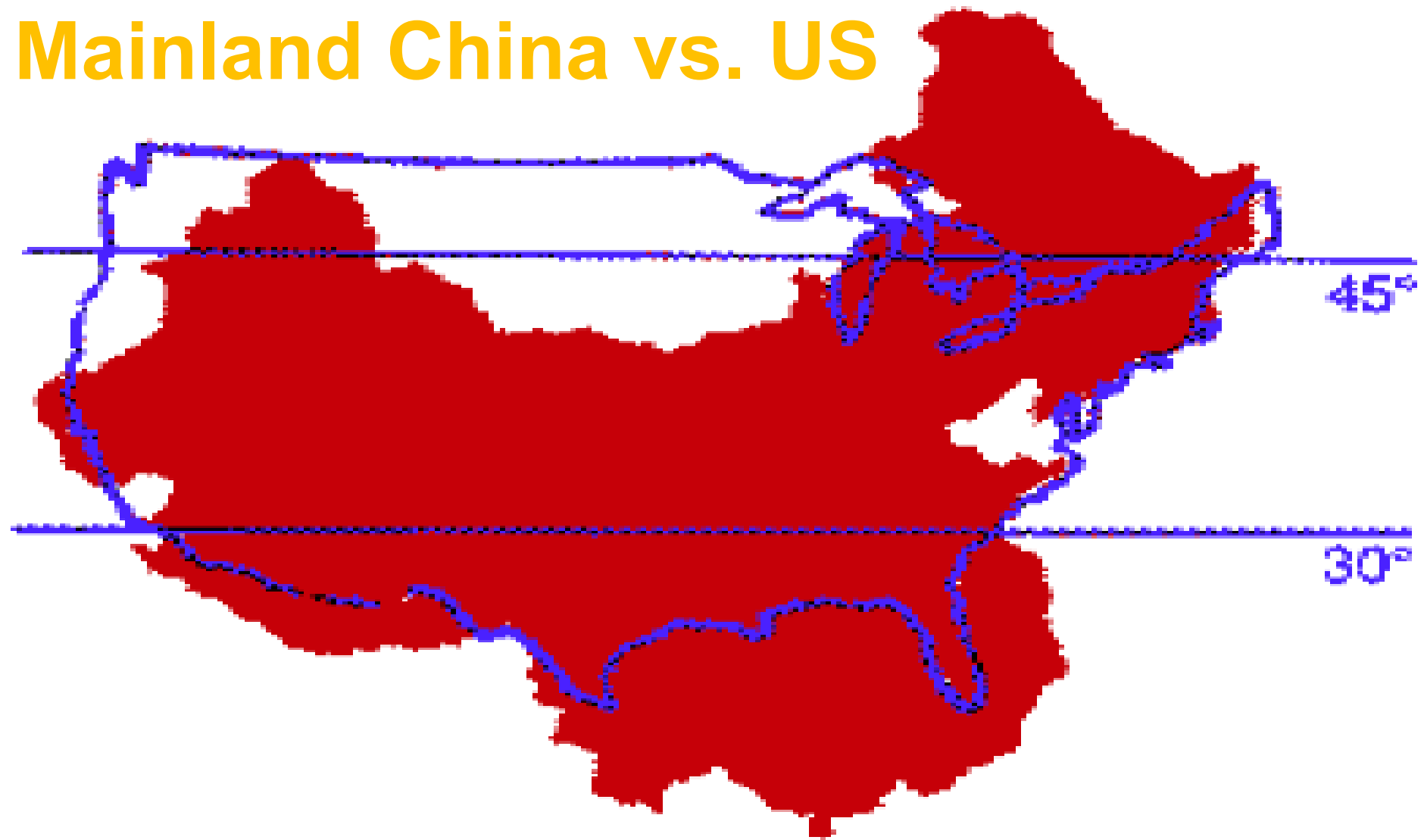
A Quick Introduction: Dr. Wendong Zhang

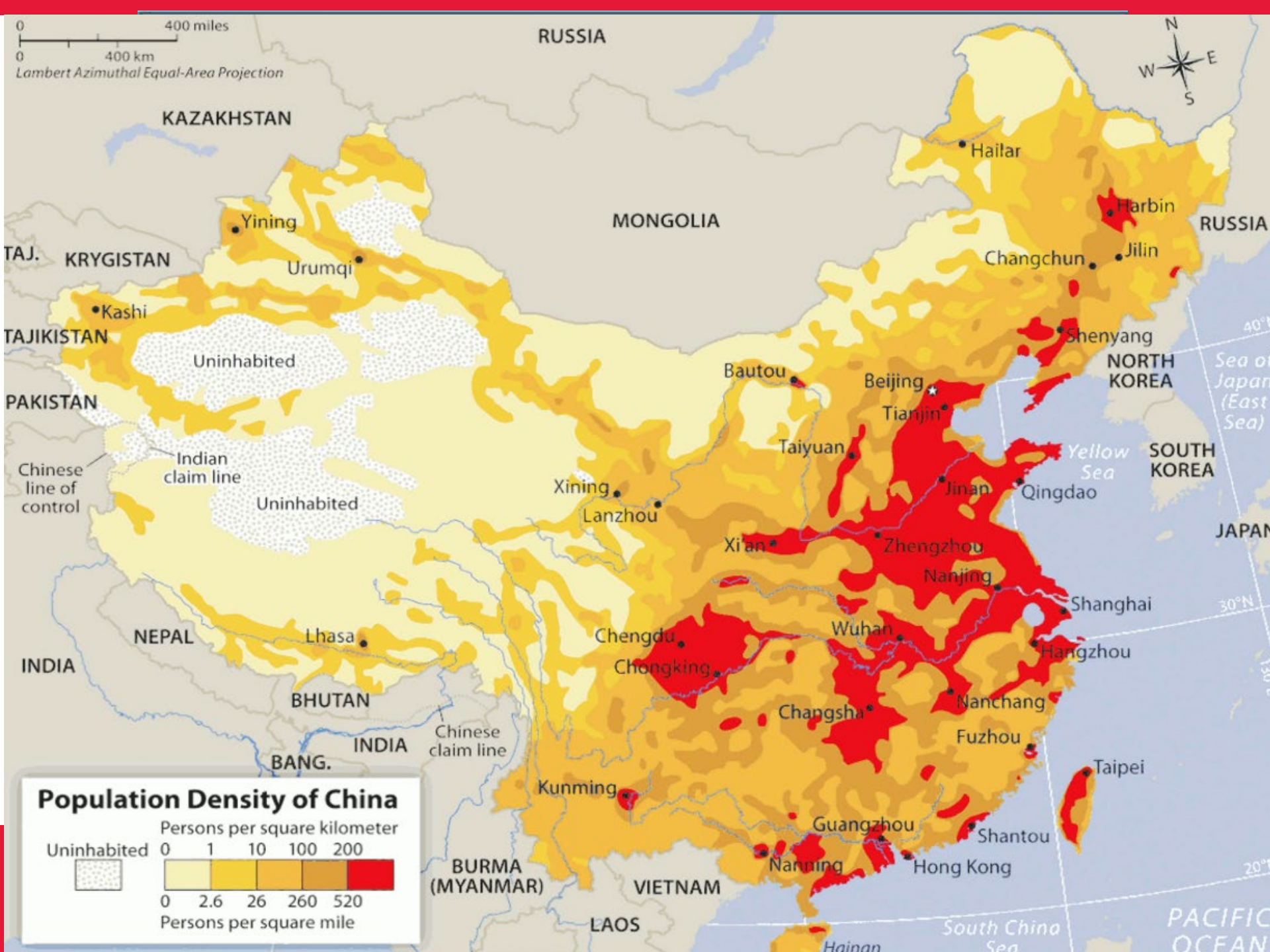
- Grown up in a rural county in NE China
- Attended college in Shanghai and Hong Kong
- Ph.D. in Ag Econ in 2015 from Ohio State
- 2012 summer intern at USDA-ERS on farm economy and farmland values
- Research and extension interests:

land value/ownership [www.card.iastate.edu/farmland/agriculture and the environment](http://www.card.iastate.edu/farmland/agriculture_and_the_environment)

China Ag center www.card.iastate.edu/china

Mainland China vs. US





#1: Ag is comparative advantage for US, not for China

Figure 1. Number of farmers in Chinese provinces compared to Iowa

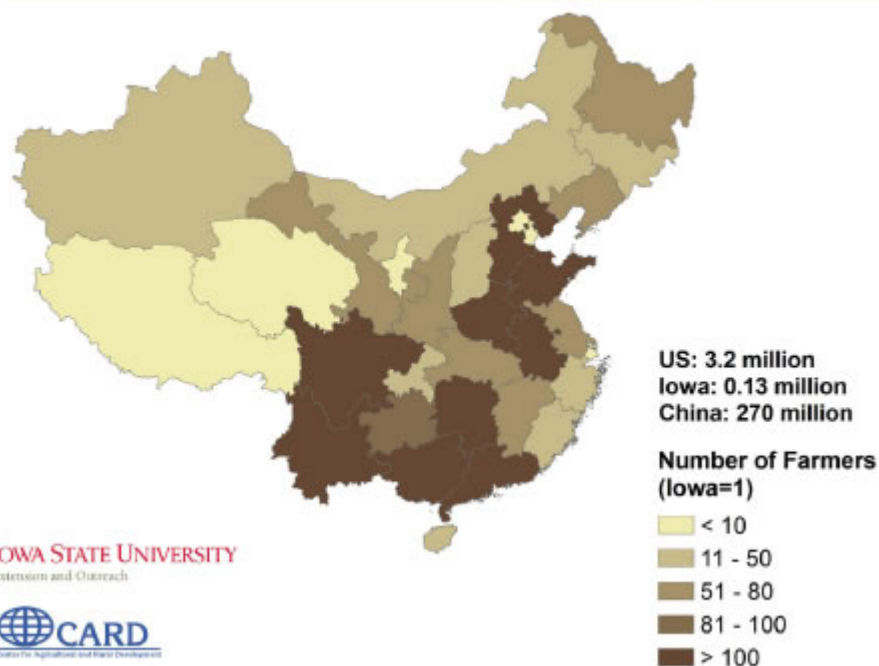
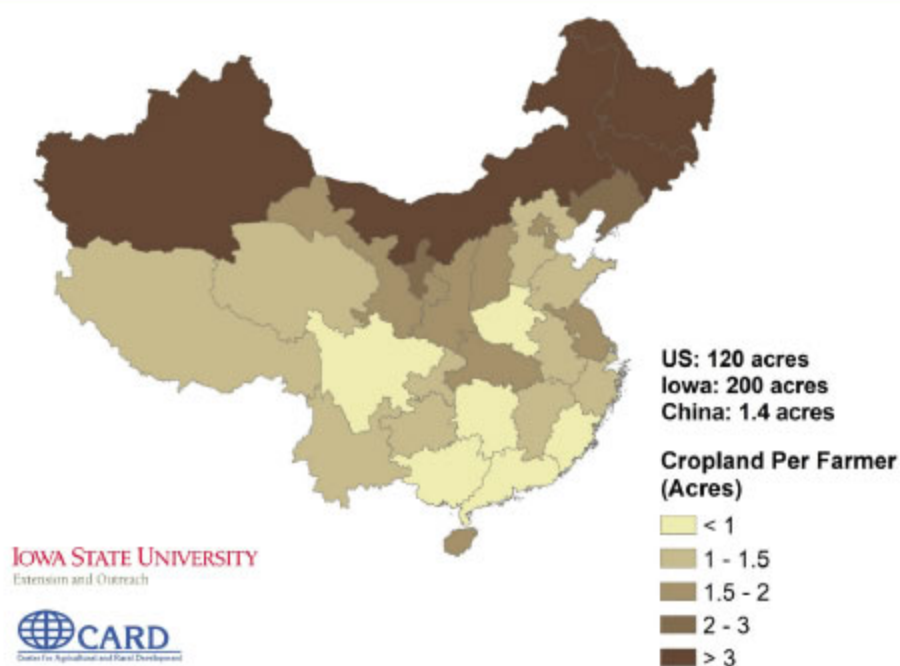
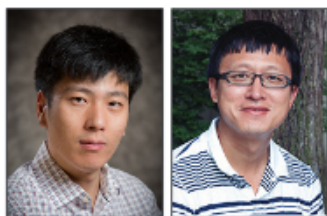


Figure 2. Crop land per farmer in China in acres



Because crop land per farmer is so small in China, using Iowa as the unit here would create too many decimal points. We use acres instead.



Navigating the Chinese agricultural economy through the lens of Iowa

By Wendong Zhang, extension economist, 515-294-2536, wdzhang@iastate.edu; Minghao Li, postdoctoral researcher, Center for Agricultural and Rural Development, Iowa State University



**Chinese land is owned by collectives
(Contract Right Certificate)**

Total land size

Number of parcels

Family Rep.

30-year term

**With at least one
30-year renewal**

All family members

China's New Rural Land Transfer Reform

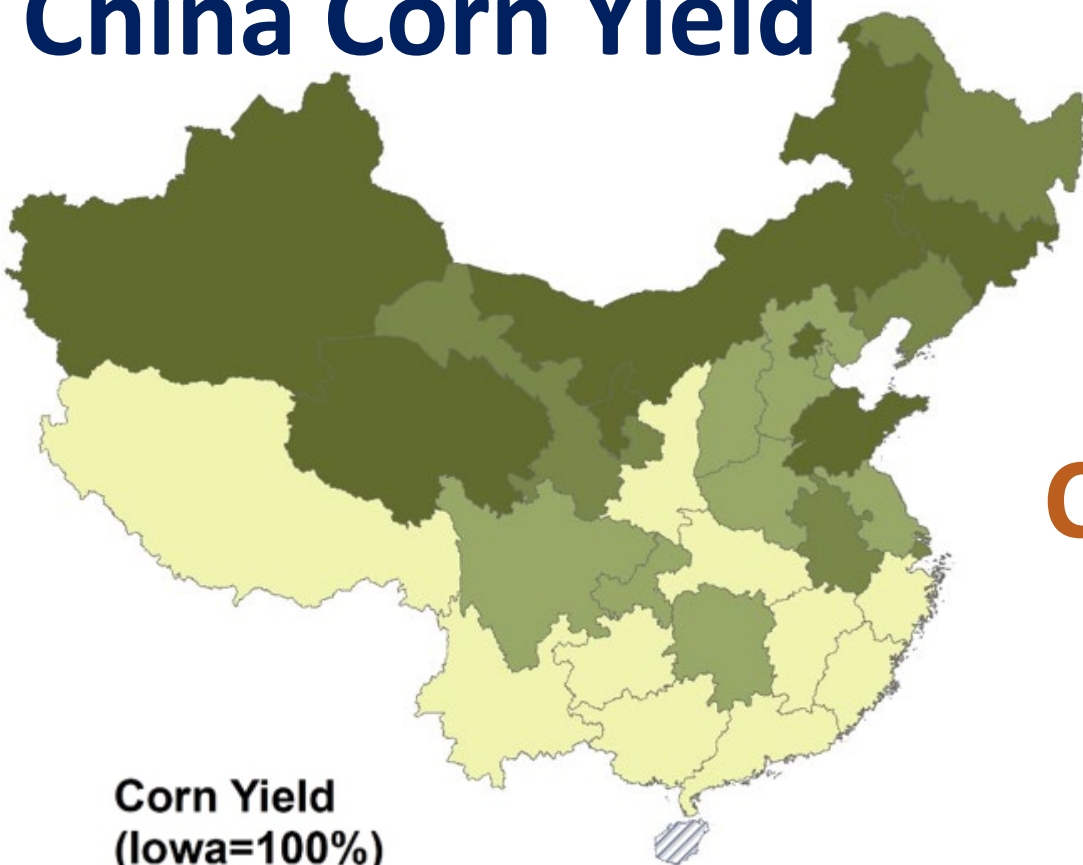
2016:
77 million acres (35% of cropland) transferred;
2007: 5%

Among them: 30% to co-ops or corps; 80% non-grain production

Minghao Li, Wendong Zhang, and Dermot Hayes.

2018. "Can China's Rural Land Policy Reforms Solve its Farmland Dilemma?" *Agricultural Policy Review*. Center for Agricultural and Rural Development, Iowa State University.

China Corn Yield



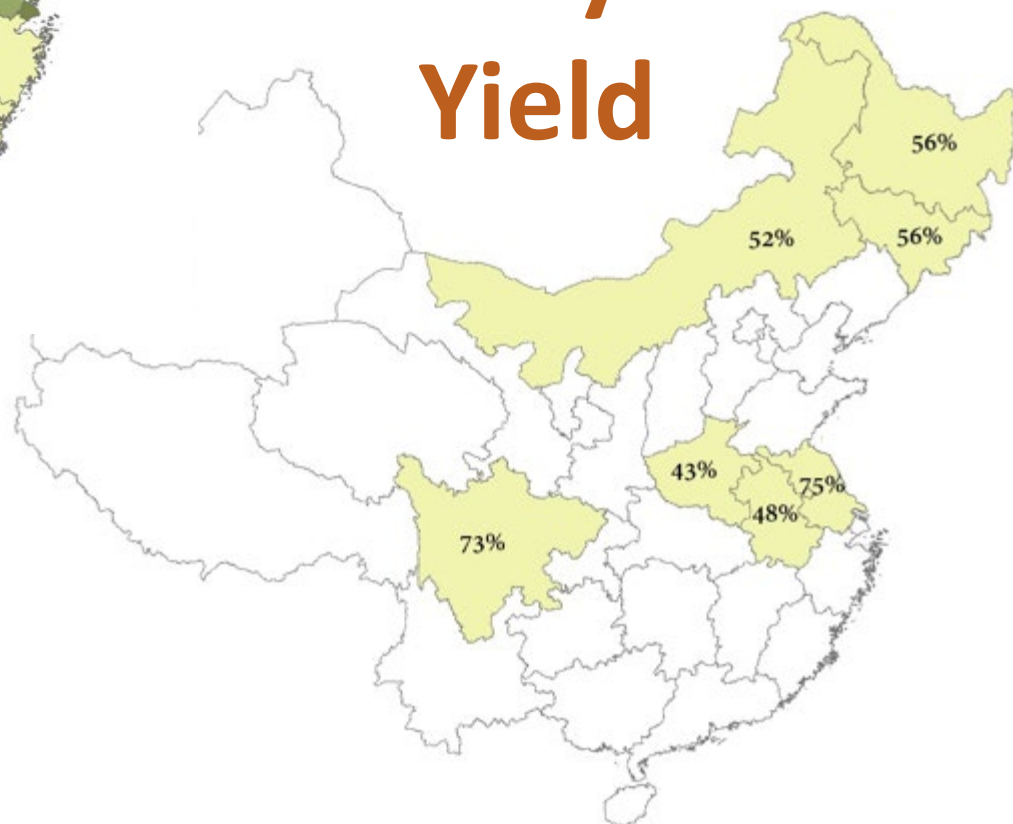
2015 Soybean Yield

US: 48 Bu/acre

Iowa: 56 Bu/acre

China: 26 Bu/acre

China Soybean Yield



CRUNCH TIME FOR U.S.-CHINA TRADE TALKS: Mnuchin and U.S. Trade Representative Robert Lighthizer resume trade negotiations today in Beijing with a Chinese team led by Vice Premier Liu He, as both sides look to finalize a deal in the coming weeks.

"We hope within the next two rounds, in China and in D.C., to be at the point where we can either recommend to the president we have a deal or make a recommendation that we don't," Mnuchin said in an interview Monday with Fox Business.

Liu and Chinese negotiators are scheduled to be in Washington for the final round of talks beginning on May 8.

Are we there yet? U.S. officials have said both sides have made progress in several areas, including agreement on a strong enforcement mechanism. They have also seen how a deal will address President Donald Trump's tariffs on \$110 billion worth of Chinese goods and Beijing's retaliatory duties on \$110 billion worth of U.S. goods.

Mnuchin noted that "there's still some important issues, so we have a lot of work to do." More [here](#).

Crunch time for U.S.-China trade talks

By SABRINA RODRIGUEZ
(srodriguez@politico.com; [@SabRod123](https://twitter.com/SabRod123))
04/30/2019 10:00 AM EDT

White House's Mulvaney says China trade talks will be resolved 'one way or the other' within two weeks

PUBLISHED TUE, APR 30 2019 • 11:24 AM EDT UPDATED 4 HOURS AGO



Jacob Pramuk
[@JACOBPRAMUK](https://twitter.com/JACOBPRAMUK)



Thomas Franck
[@TOMWFRANCK](https://twitter.com/TOMWFRANCK)

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KEY POINTS

- White House chief of staff Mick Mulvaney says the U.S. should know in the next two weeks whether it will reach a trade deal with China.
- The Trump administration is trying to strike an agreement to end a potentially damaging trade conflict.



Donald J. Trump ✓
@realDonaldTrump



The United States has been losing, for many years, 600 to 800 Billion Dollars a year on Trade. With China we lose 500 Billion Dollars. Sorry, we're not going to be doing that anymore!

♥ 73.3K 6:08 AM - May 6, 2019



💬 28.4K people are talking about this



Donald J. Trump ✓ @realDonaldTrump · May 5, 2019



For 10 months, China has been paying Tariffs to the USA of 25% on 50 Billion Dollars of High Tech, and 10% on 200 Billion Dollars of other goods. These payments are partially responsible for our great economic results. The 10% will go up to 25% on Friday. 325 Billions Dollars....



Donald J. Trump ✓
@realDonaldTrump

....of additional goods sent to us by China remain untaxed, but will be shortly, at a rate of 25%. The Tariffs paid to the USA have had little impact on product cost, mostly borne by China. The Trade Deal with China continues, but too slowly, as they attempt to renegotiate. No!

♥ 69.9K 11:08 AM - May 5, 2019



💬 24.8K people are talking about this



Bloomberg

Sub

Markets

Stocks Pare Losses After Shock From Trump's Tweets: Markets Wrap

By [Sarah Ponczek](#)

May 5, 2019, 5:18 PM CDT

Updated on May 6, 2019, 12:34 PM CDT

The Dow Jones Industrial Average **DJIA**, **-0.74%** slid 226 points, or 0.9%, to 26,278, with the benchmark hitting an intraday low at 26,033.95. The S&P 500 index **SPX**, **-0.81%** declined 28 points, or 1%, to 2,917, while the Nasdaq

China stocks drop 5.5%



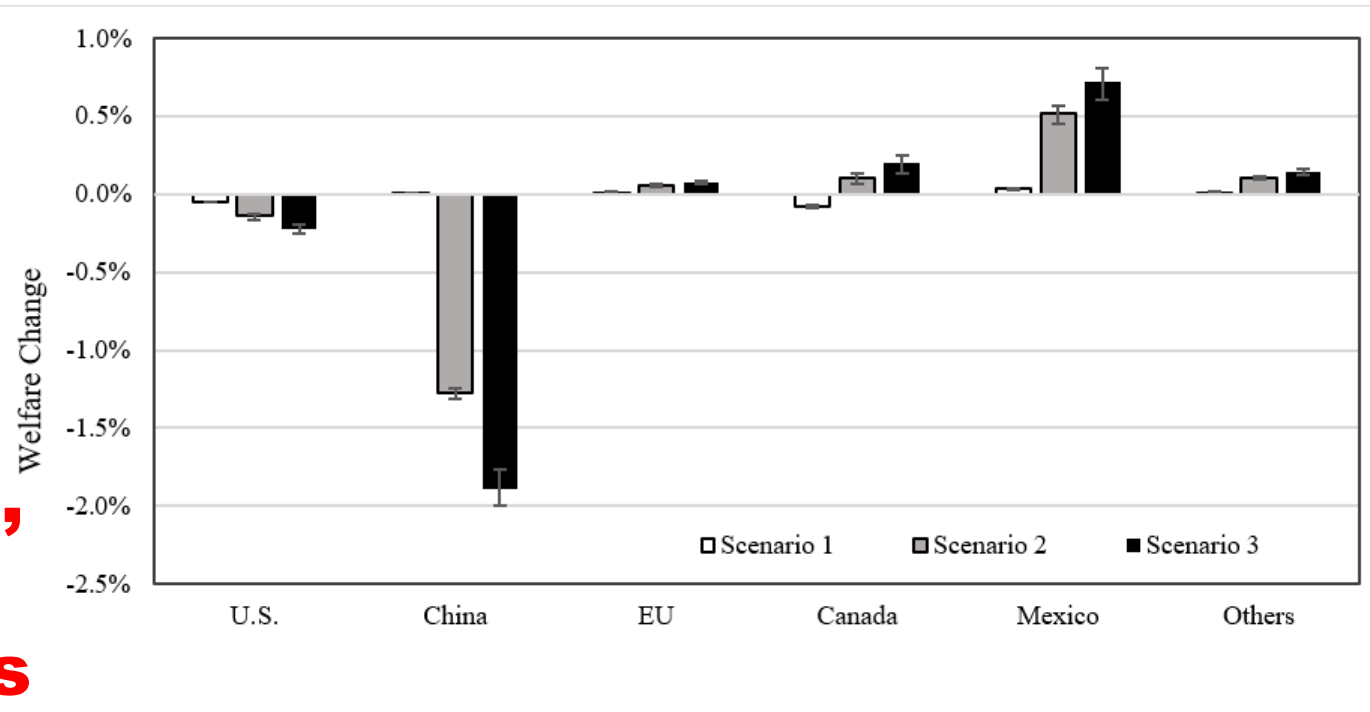
CARD

Center for Agricultural and Rural Development

Minghao Li, Edward J. Balistreri, Wendong Zhang

December 2018 [18-WP 587]

Figure 1. Welfare changes in selected countries.



Scenario 2: Tariff increases in scenario 1 and additional tariff increases between the United States and China, including the \$50 billion round and the \$200 billion/\$60 billion round of tariff increases. The scenario reflects the current tariffs (as in October 2018).

Scenario 3: Tariff increases in scenario 1 and 2, and additional tariff increases that are scheduled to happen at the end of 2018, i.e., the U.S. tariffs on \$200 billion Chinese products will increase by another 15%, and China's retaliatory tariffs will increase by 0~15%.

#2:
Why China
decided to
talk?
China
suffers
greater
economic
Loss overall,
but also for
US ag states
like Iowa

September 2018
18-PB 25

The Impact of the 2018 Trade Disruptions on the Iowa Economy

- Overall losses in **Iowa's Gross State Product** are calculated to be \$1 to \$2 billion (off of a Gross State Product of \$190 billion).
- Overall losses to Iowa's **Soybean** industry of \$159 to \$891 million, with an average revenue loss across all models of \$545 million (Iowa soybeans are a \$5.2 billion industry).
- Overall losses to Iowa's **Corn** industry of \$90 to \$579 million, with an average revenue loss across all models of \$333 million (Iowa corn is an \$8.5 billion industry).
- Overall losses to Iowa's **Pork/Hog** industry of \$558 to \$955 million, with an average revenue loss across all models of \$776 million (the Iowa pork/hog industry is a \$7.1 billion industry).
- A 2% drop in **Ethanol** prices resulting in approximately \$105 million in lost revenues to Iowa ethanol producers.
- Revenue losses in these industries translate into **additional lost labor income** across the state. Labor income declines from the impacts to the corn, soybean, and hog industries range from \$366 to \$484 million without federal offsets and \$245 to \$364 million with federal offsets.
- Iowa **tax revenue losses** (personal income and sales taxes) range from \$111 to \$146 million. Federal offsets would reduce tax losses to \$75 to \$110 million.

CARD researchers win three AAEA awards

Researchers from the Center for Agricultural and Rural Development at Iowa State University will be presented with three awards from the Agricultural and Applied Economics Association.

Edward Balistreri, Chad Hart, Dermot Hayes, Minghao Li, Lee Schulz, Wendong Zhang, and John Crespi, along with David Swenson of the Department of Economics at Iowa State University, will be presented with the prestigious Bruce Gardner Memorial Prize for Applied Policy Analysis Award. The AAEA presents the Bruce Gardner prize as recognition for "outstanding impact on agricultural and related policy."

Balistreri et al. are receiving recognition for their work on the CARD Policy Brief ["*The Impact of the 2018 Trade Disruptions on the Iowa Economy*,"](#) which examines the effects of recent trade disruptions on Iowa's economy and finds overall losses in Iowa's Gross State Product from \$1 to \$2 billion.

#3: Trade disruptions give China strategic incentives to further diversify away from U.S., potentially benefitting our competitors

Commodity (2016 value of China ag imports)	USA	Brazil	Europe	Australia	Argentina or Uruguay
Soybean (\$34.4 Bil.) (China increased production by 9% in 2018)	38%	47%			A-10%
Pork (\$2.32 Bil.)	13%		50%	Canada: 11%	
Ethanol (\$0.38 Bil.)	70%	11%	Pakistan 15%		
Beef (\$2.42 Bil.)	0%	22%		28%	U-21%
Poultry (\$1.11 Bil.)		79%			A-9%
Corn (\$0.87 Bil.)	10%	Ukraine: 79%			

China's Ag Import Sources

China can produce 97% of its pork, but only 15% of its soybean demand domestically
China provided about US\$200/acre subsidy to increase soy production (up 9% 2018)

What Have We Learned from China's Past Trade Retaliation Strategies?

Minghao Li, Wendong Zhang, and Chad Hart

JEL Classifications: Q17, F10

Keywords: Agricultural Commodities, China, Tariff, Trade Retaliation

Proportional, Restrained Response

Currently, China has a huge overall trade surplus with the United States, and thus naturally has no incentive to change the status quo and avoid dispute escalations. As the two cases above demonstrate, China targets U.S. agricultural commodities with trade flows comparable to U.S. targets in order to send a clear message.

Target Products That Are Substitutable

In these two cases, China chose commodities that are easily substitutable across production and domestic production. Half of the U.S. broiler products were chicken feet, a replacement for corn commonly used for feed and can be replaced by corn or other coarse grains. In terms of

Inflict Economic and Political Costs

From the perspective of China's government, the ultimate goal of retaliatory tariffs is to pressure politically influential interest groups in the United States, turning them into lobbyists. For retaliation measures to be effective, China's market as an export destination for U.S. products must be important for U.S. producers, as is the case for broiler products and sorghum. For this reason, the U.S. government has long recognized the political significance of the U.S. agricultural industry, which is why it targets U.S. agricultural exports in trade spats.

UPDATE 1-CHINA SAYS NEW ANIMAL FEED STANDARDS WILL CUT CHUNK OUT OF APPETITE FOR SOY

10/28/2018

China's Feed Industry Association on Friday approved new standards for feed for pigs and chickens, lowering the protein levels in pig feed by 1.5 percentage points and those for chickens by one percentage point, the agriculture ministry said in a statement that day. It did not say when the new standards would take effect.

The ministry also said in the statement that China's overall yearly consumption of soymeal would fall by 11 million tonnes. The country used 71 million tonnes of soymeal to make animal feed in the 2017-18 crop year.

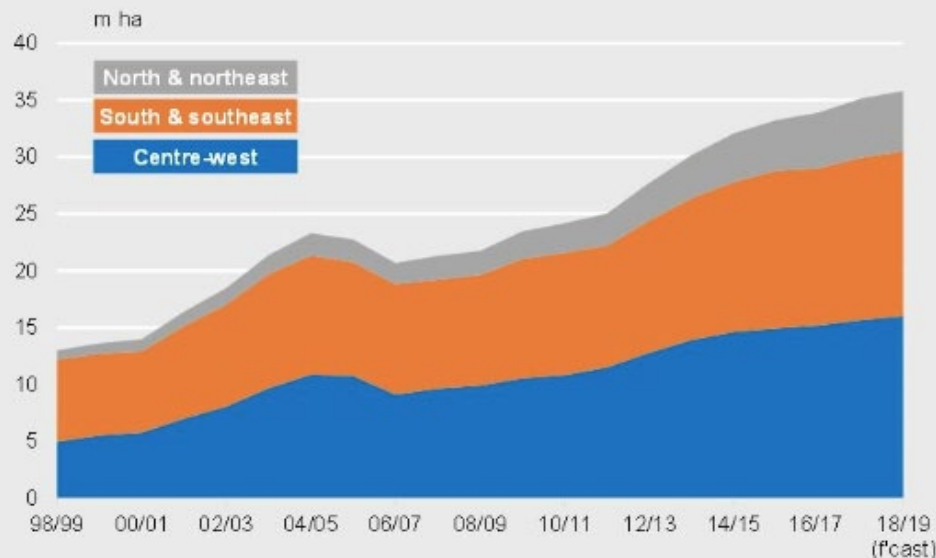


Bolsonaro wins Brazilian presidency

The former military officer is the latest in a global wave of far-right nationalists to surge at the ballot box.

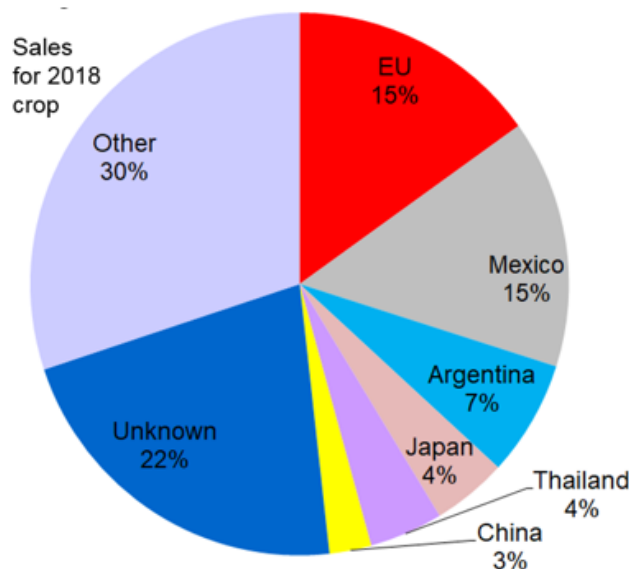
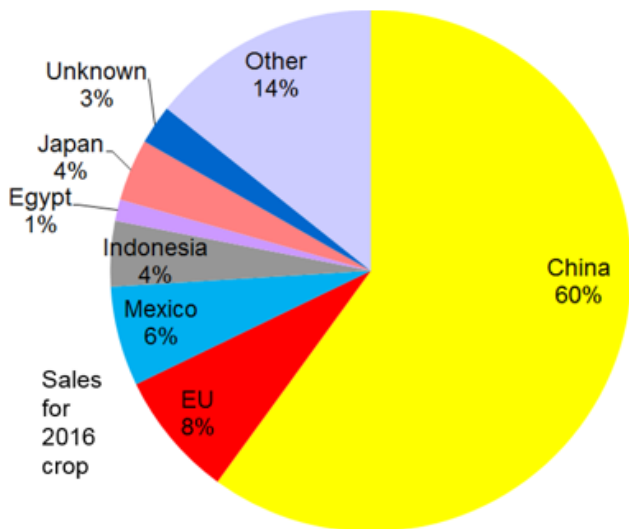
washingtonpost.com

Soybeans: Brazilian area by region*

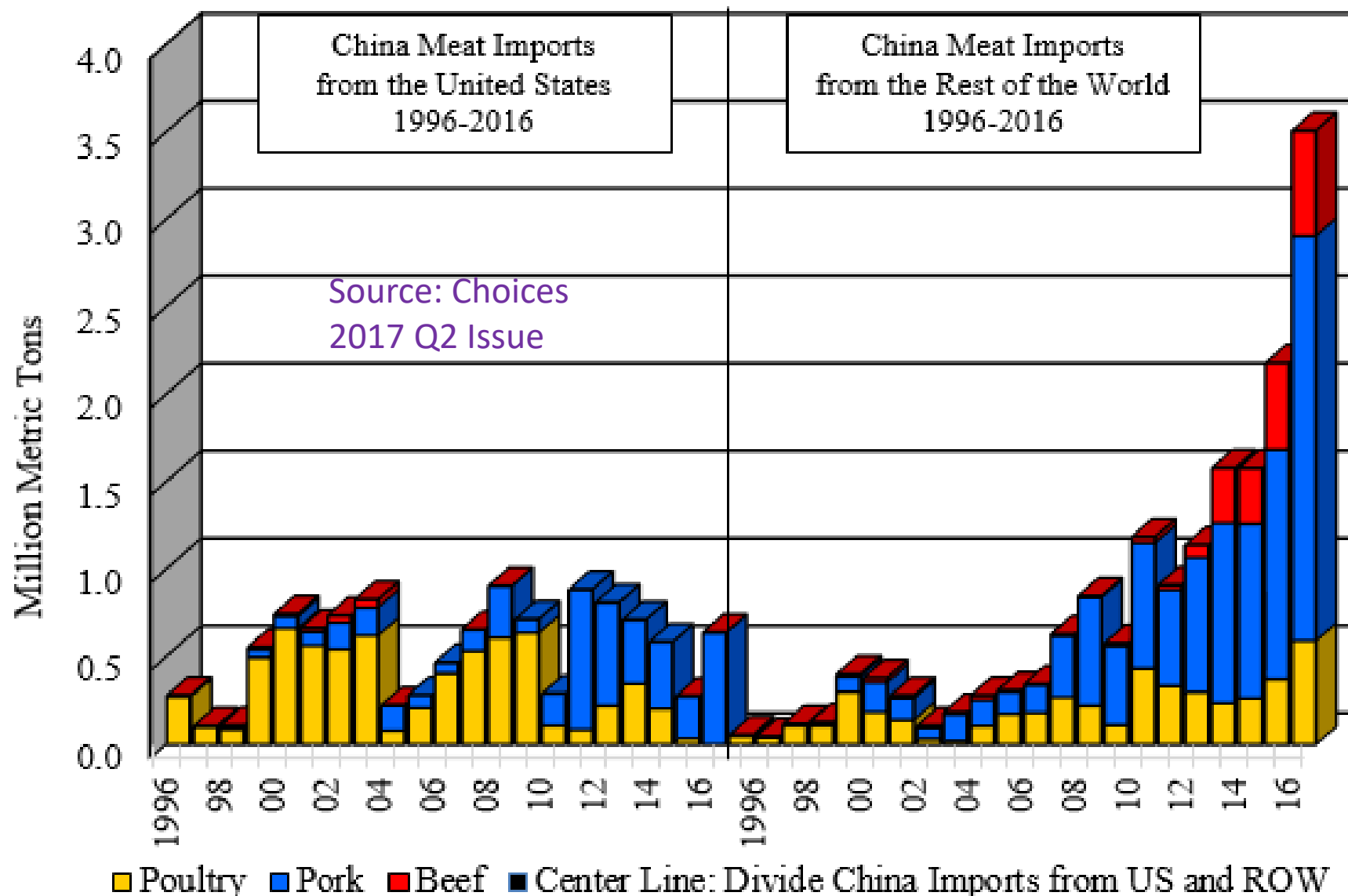


Soybean Export Market Share (2016 crop vs. 2018 crop)

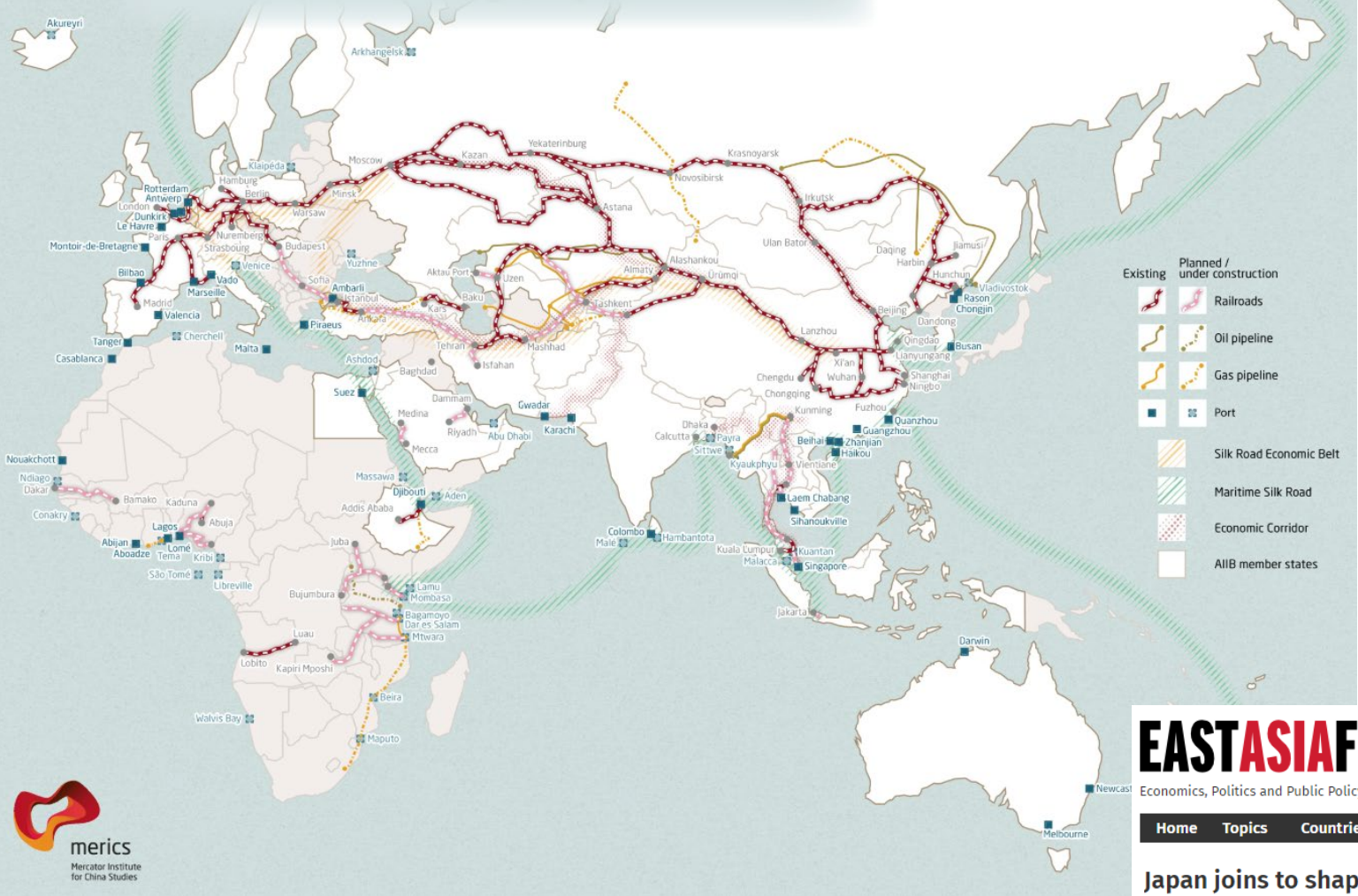
Soy Stats Worrying



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



The Belt and Road Initiative creates a global infrastructure network
 China uses, acquires and builds railroads, ports and pipelines



China's Belt and Road Initiative

EASTASIAFORUM

Economics, Politics and Public Policy in East Asia and the Pacific

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Japan joins to shape China's Belt and Road
 28 October 2018

Author: Shiro Armstrong, ANU



Structural impacts of trade war

Chinese Ag Policy Presents Future Demand that could be filled by our competitors

Minghao Li, Wendong Zhang, Dermot Hayes, Riley Arthur, Yantao Yang, and Xiudong Wang. 2017. ["China's New Nationwide E10 Ethanol Mandate and Its Global Implications."](#) *Agricultural Policy Review*. Center for Agricultural and Rural Development, Iowa State University.

China cannot produce enough ethanol domestically to fulfill the 2020 E10 ethanol mandate

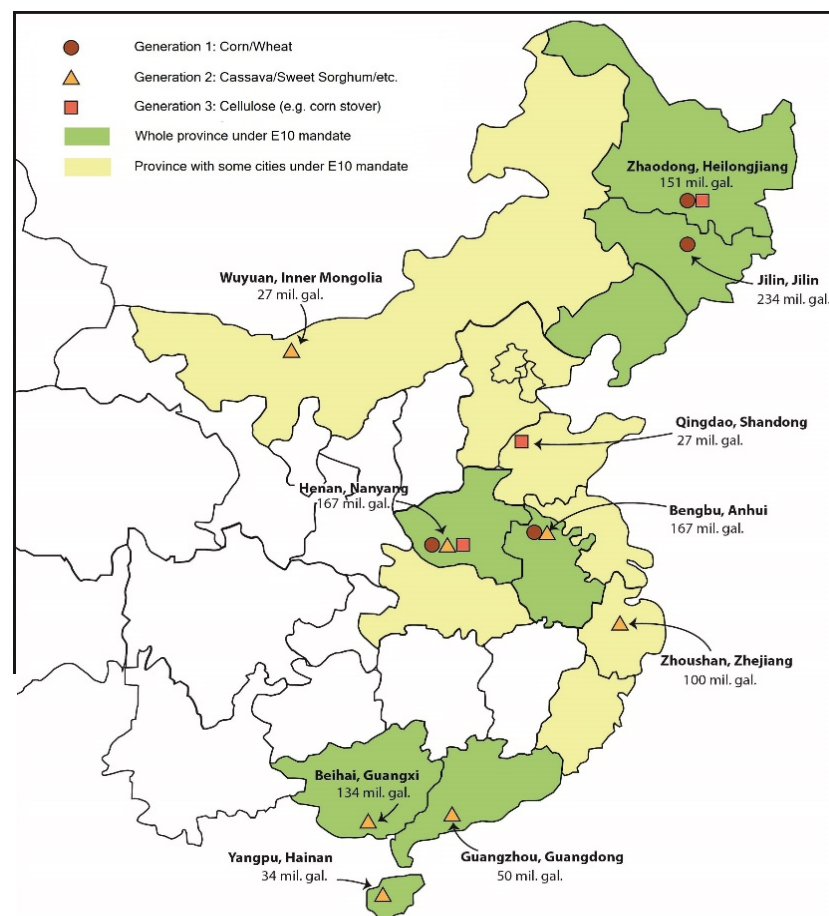
4th largest producer – 1 Bil gal.

- After US, Brazil and EU
- Corn ethanol 64%
- Also uses cassava, sorghum, corn stover
- Imported 225 mil. gal, mainly from U.S.
- Tariff rose from 5% to 30%

China consumes 40 bil. gal gasoline; 1 bil. gal ethanol in 2016

China sets 2020 target for nationwide ethanol use to cut corn stocks

China's Ethanol Trial



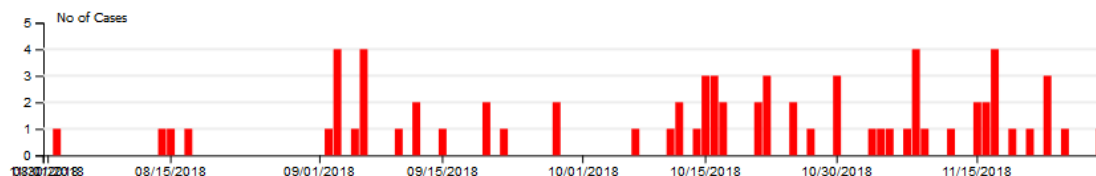
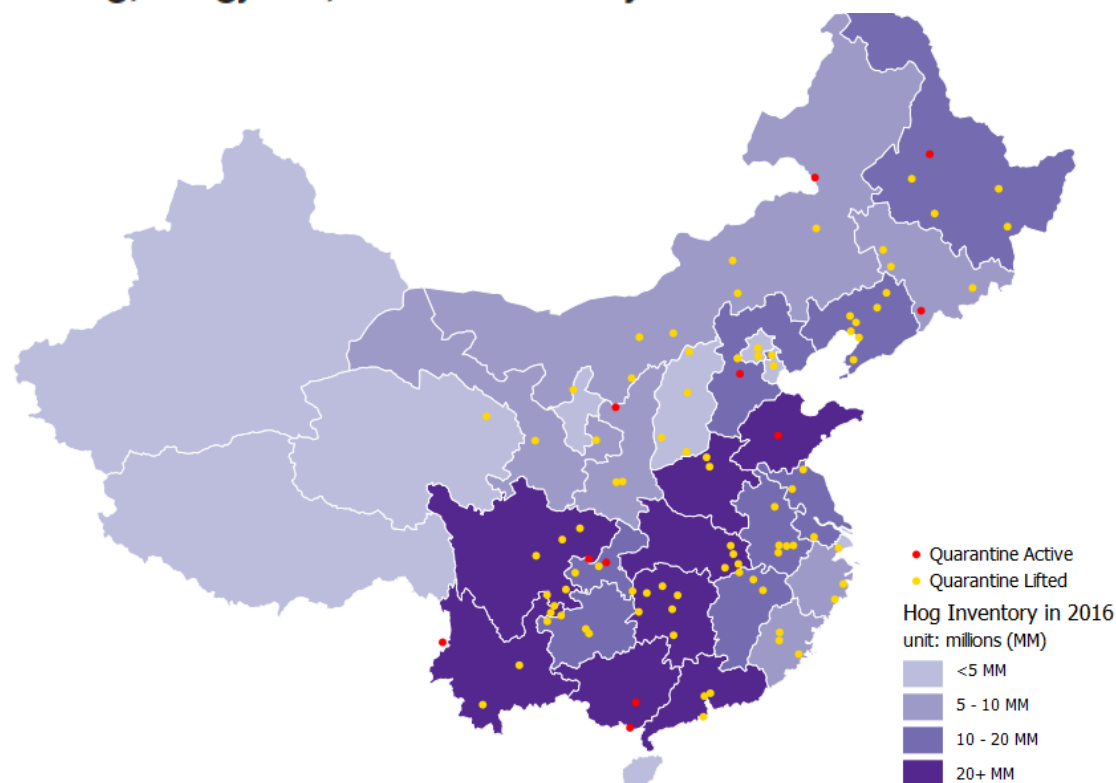
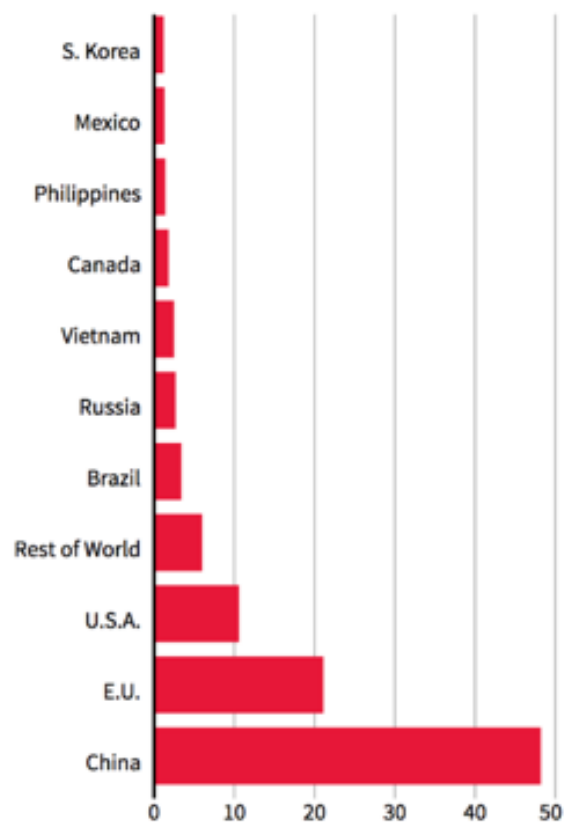


World's Largest Pork Producer in Crisis: China's African Swine Fever Outbreak

by Yongtong Shao, Minghao Li, Wendong Zhang, Yongjie Ji, and Dermot Hayes

TOP PORK PRODUCERS BY SHARE

In percent as share of total in 2017



African Swine Fever in China: An Update

Minghao Li, Tao Xiong, Yongjie Ji, Dermot Hayes, and Wendong Zhang

minghao@iastate.edu; taoxiong@iastate.edu; yongjieji@iastate.edu; dhayes@iastate.edu;

wdzhang@iastate.edu

Lean Hogs

Latest Price & Chart for Lean Hogs

End of day Commodity Futures Price Quotes for Lean Hogs

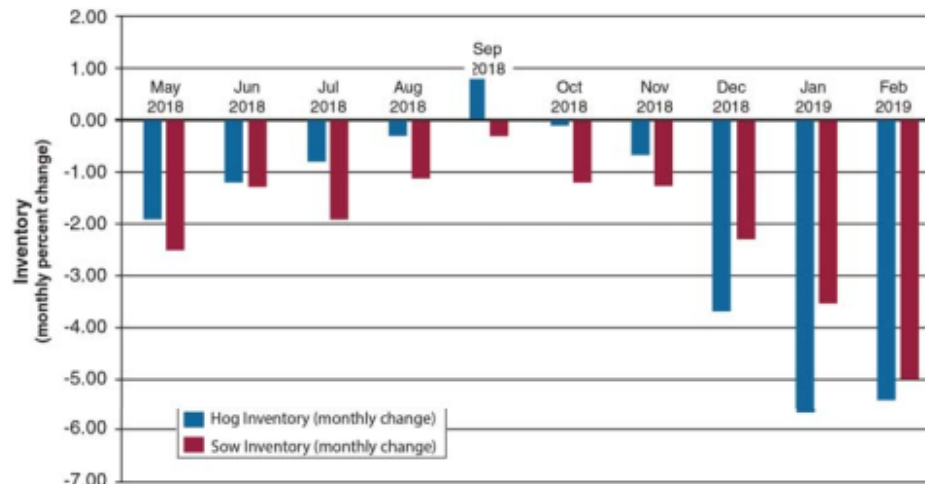


Figure 1. Monthly changes in China's hog inventory

Source: Ministry of Agriculture of China



#4: Arguably strategic misjudgments early on by both sides, exposing lack of mutual understandings and mistrust



#5: China is a Country of Rapid Change



High Speed Rail

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1992
GDP per capita (PPP)
\$37,283
United States

\$1,846

China

U.S. GDP per capita was
20.2 times that of China

2016
GDP per capita (PPP)
\$53,417
United States

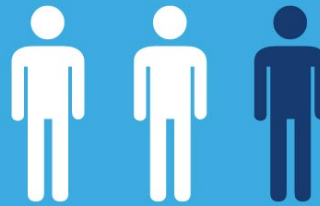
\$14,275

China

U.S. GDP per capita was
3.7 times that of China

**88 percent of the next billion entrants
into the middle class will be in Asia**

By 2030, Asia could represent 2/3
of the global middle class population.



BROOKINGS

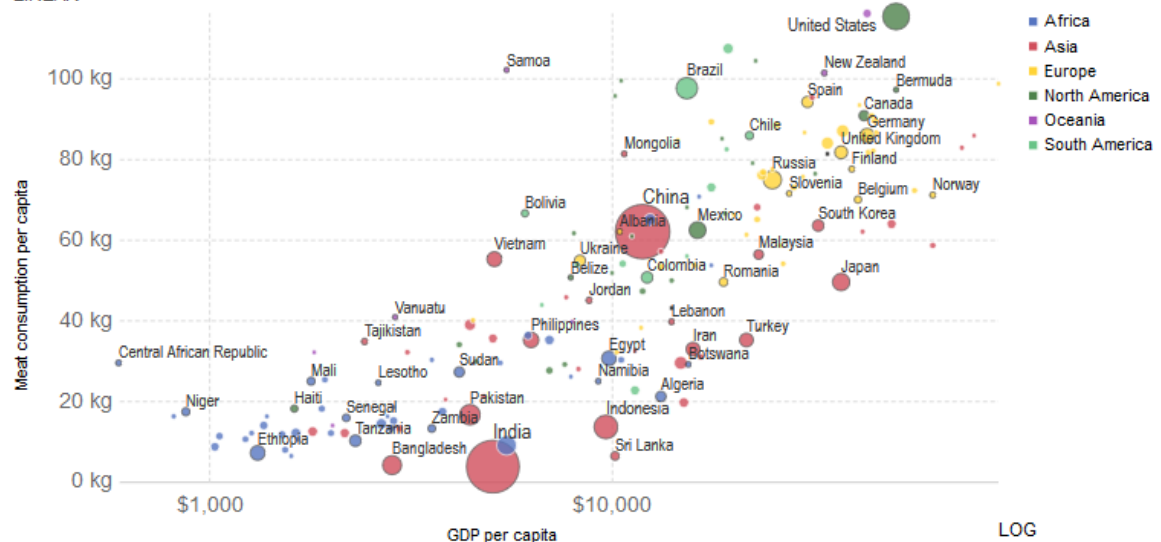


Bloomberg

**Chinese People Are
Getting Richer, and
will need more
protein and better
environment**

Meat consumption vs. GDP per capita, 2013

Average meat consumption per capita, measured in kilograms per year versus gross domestic product (GDP) per capita measured in 2011 international-\$. International-\$ corrects for price differences across countries. Figures do not include fish or seafood.
LINEAR



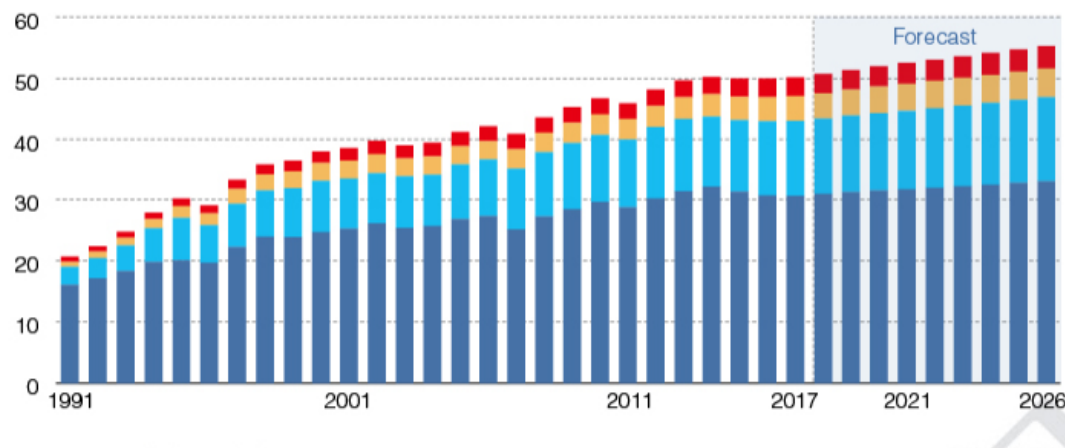
Source: UN FAO; World Bank, World Development Indicators

CC BY-SA

A Meatier Middle Kingdom

■ Pork ■ Poultry ■ Beef and veal ■ Sheep

Unit: Kilograms per capita



Source: 财新数据
Caixin Data

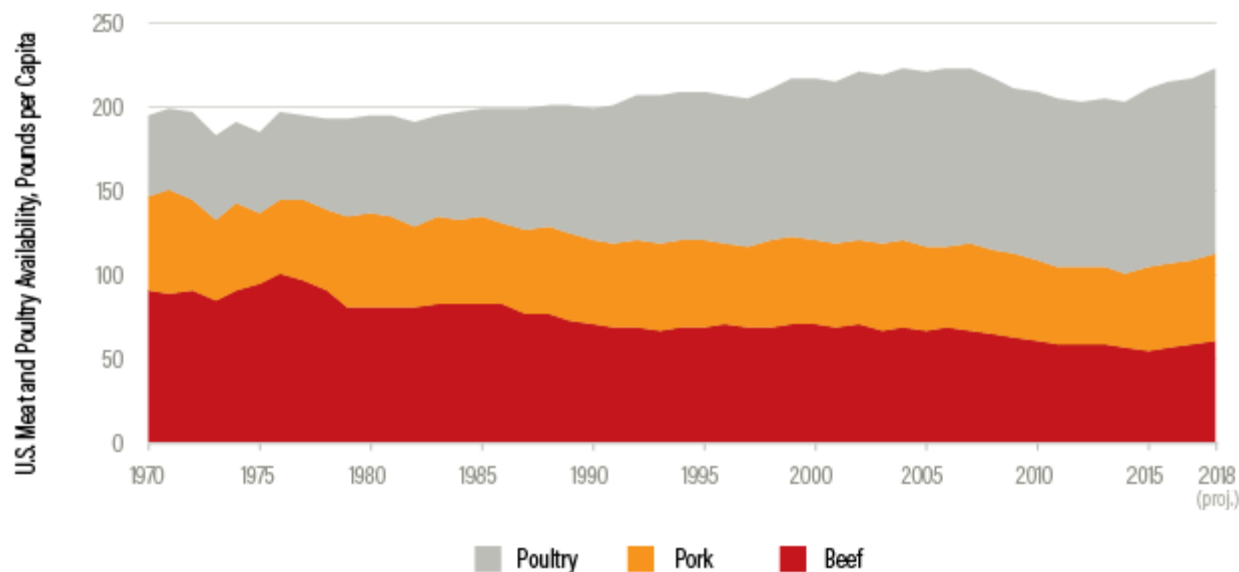
Original Sources: Organization for Economic Co-operation and Development, Food and Agriculture Organization of the United Nations

WORLD RESOURCES INSTITUTE

2018 Will See High Meat Consumption in the U.S., but the American Diet is Shifting

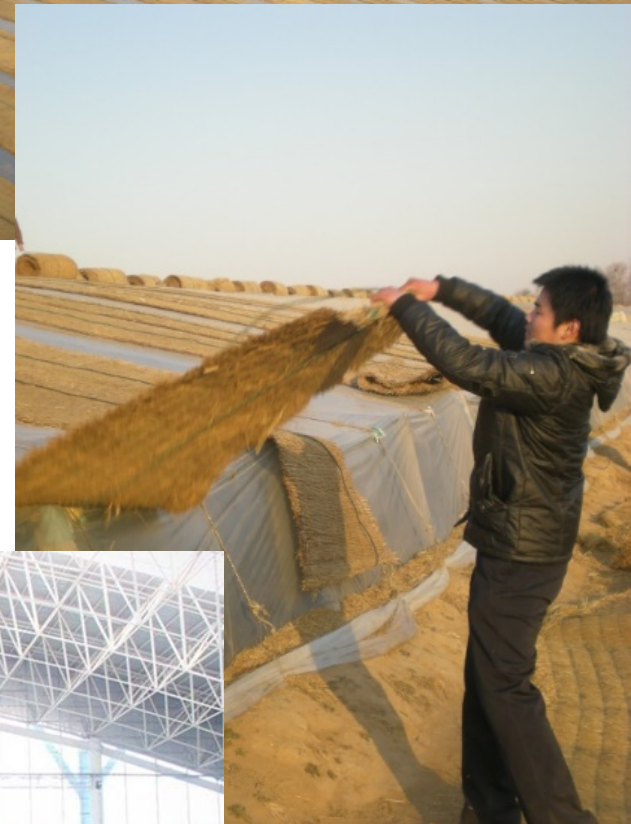
by  Richard Waite - January 24, 2018

U.S. Meat Consumption Has Shifted from Beef toward Chicken



My hometown: Shenxian, Shandong Province

Greenhouse – plastic film - Shandong Province



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#6: Chinese economy and U.S.- China Relations at Inflection Points



HOW CHINA BECAME CAPITALIST

RONALD COASE

Nobel Laureate in Economics
& NING WANG

Description this book

How China Became Capitalist details the extraordinary, and often unanticipated, journey that China has taken over the past thirty five years in transforming itself from a closed agrarian socialist economy to an indomitable economic force in the international arena. The authors revitalise the debate around the rise of the Chinese economy through the use of primary sources, persuasively arguing that the reforms implemented by the Chinese leaders did not represent a concerted attempt to create a capitalist economy, and that it was marginal revolutions that introduced the market and entrepreneurship back to China. Lessons from the West were guided by the traditional

Chinese principle of seeking truth from facts . By turning to capitalism, China re-embraced her own cultural roots. How China Became Capitalist challenges received wisdom about the future of the Chinese economy, warning that while China has enormous potential for further growth, the future is clouded by the government's monopoly of ideas and power. Coase and Wang argue that the development of a

WORLD NEWS OCTOBER 17, 2017 / 9:29 PM / A YEAR AGO

integral in

Xi says China will let the market play decisive role in resource allocation

WORLD NEWS NOVEMBER 12, 2013 / 3:47 AM / 5 YEARS AGO



China vows 'decisive' role for markets, results by 2020

U.S.-China Relations at Critical Inflection Point

NATIONAL BESTSELLER

"Thucydides's Trap identifies a cardinal challenge to world order."

—HENRY KISSINGER, former US secretary of state

DESTINED FOR WAR

CAN AMERICA AND CHINA
ESCAPE THUCYDIDES'S TRAP?

GRAHAM
ALLISON

Lesson 4: Domestic performance is decisive.

Lesson 5: Hope is not a strategy.



"I t was the rise of Athens, and the fear that this inspired in Sparta, that made war inevitable." —Thucydides

THE
NATIONAL
INTEREST



Is a War between China and America Simply Unstoppable?

Building his analysis on Thucydides' study of the Peloponnesian War, Graham Allison and his colleagues have studied the classic international relations problem of military conflict between a rising power and an established dominant power. They identified 16 such situations over the past 500 years, and found that 12 of them ended in war — painting a gloomy picture of the future of US–China relations.

What is the

Thucydides Trap?

“It was the rise of Athens, and the fear that this inspired in Sparta, that made war inevitable.”

–Thucydides

“We all need to work together to avoid the Thucydides trap – destructive tensions between an emerging power and established powers.”

–Xi Jinping
President of China

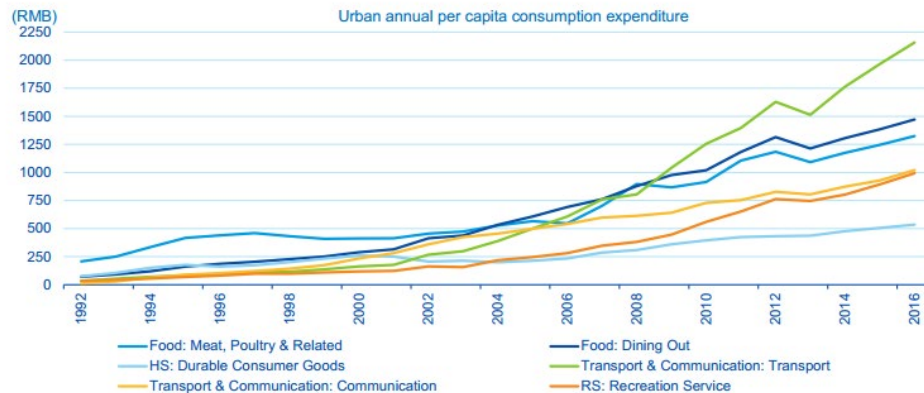
	Period		Ruling Power	Rising Power		Result
1	First half of 16th century		France	Hapsburgs		War
2	16th–17th centuries		Hapsburgs	Ottoman Empire		War
3	17th century		Hapsburgs	Sweden		War
4	17th century		Dutch Republic	England		War
5	Late 17th–early 18th centuries		France	Great Britain		War
6	Late 18th–early 19th centuries		United Kingdom	France		War
7	Mid-19th century		United Kingdom, France	Russia		War
8	19th century		France	Germany		War
9	Late 19th–early 20th centuries		Russia, China	Japan		War
10	Early 20th century		United Kingdom	United States		No war
11	Early 20th century		Russia, U.K., France	Germany		War
12	Mid-20th century		Soviet Union, U.K. France	Germany		War
13	Mid-20th century		United States	Japan		War
14	1970s–1980s		Soviet Union	Japan		No war
15	1940s–1980s		United States	Soviet Union		No war
16	1990s–present		United Kingdom, France	Germany		No war

#7: Chinese consumers, producers, and gov't increasingly like U.S.

BBVA RESEARCH

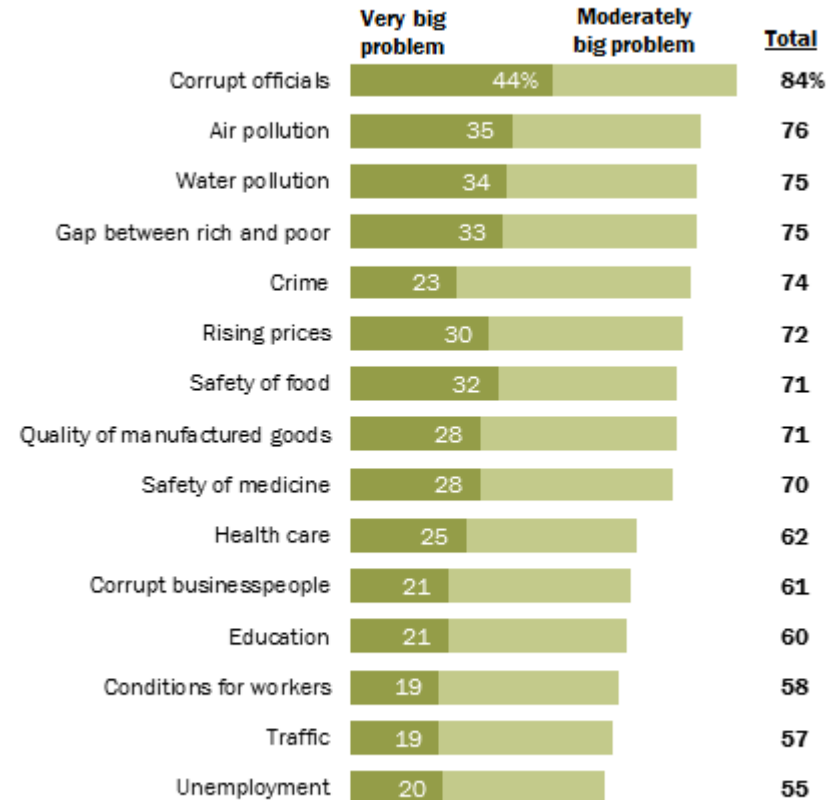
CHINA CONSUMPTION TRENDS | 2017

Urban Chinese prefer to travel, stay connected, buy protein rich food, durable goods & recreation



Corrupt Officials, Pollution Are Top Concerns

How big of a problem is/are ...



Source: Spring 2015 Global Attitudes survey. Q60a, bCH1, d-f, h-q.

PEW RESEARCH CENTER

Corruption, Pollution, Inequality Are Top Concerns in China

Many Worry about Threats to Traditions and Culture

Pew Research Center

SEPTEMBER 24, 2015



2018: 1 Billion Users
2013: 195 Mil. Users

What's Wechat?

WeChat is a smartphone application that consists of...



Movie Ticket

+



Bill payment

+



Free calling

+



Investment

+



Social network



Mobile payment

+



User Review

+



Group buying

+



Taxi order

+



Free messaging



A staff member jumps for a photo to celebrate after Alibaba's "Double 11" shopping festival, also known as Singles' Day, set a new record of 213.5 billion yuan (\$30.7 billion) in Shanghai on Monday. Online shoppers in China on Sunday shattered last year's record of \$24 billion in sales during the country's annual buying frenzy. This year's extravaganza was the 10th one to be held. | AP

BUSINESS

China's Alibaba nets record \$30 billion in Singles' Day sales extravaganza, but growth rate plunges

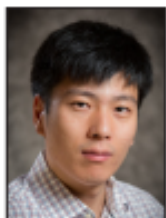
REUTERS

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Seven things to know about China to understand the trade war

By Wendong Zhang, extension economist, 515-294-2536, wdzhang@iastate.edu

1. Ag is not China's comparative advantage
2. China suffers more economically, but retaliate on ag states like Iowa
3. Trade war makes China further diversify away from US
4. Trade war exposes early strategic misjudgments and growing mistrust
5. China is a country of rapid change
6. Chinese economy and relations with US at inflection points
7. Chinese producers and consumers increasingly think and act like Americans

<https://www.extension.iastate.edu/agdm/articles/zhang/ZhaFeb19.html>

Thank You!

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www.card.iastate.edu/china

www.card.iastate.edu/farmland