

What's Going On in China: Corn, GMO, Crop Insurance and High-Speed Rails

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2017 Crop Advantage Series, Okoboji, IA, January 5th, 2017



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The new Mike Duffy



29

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

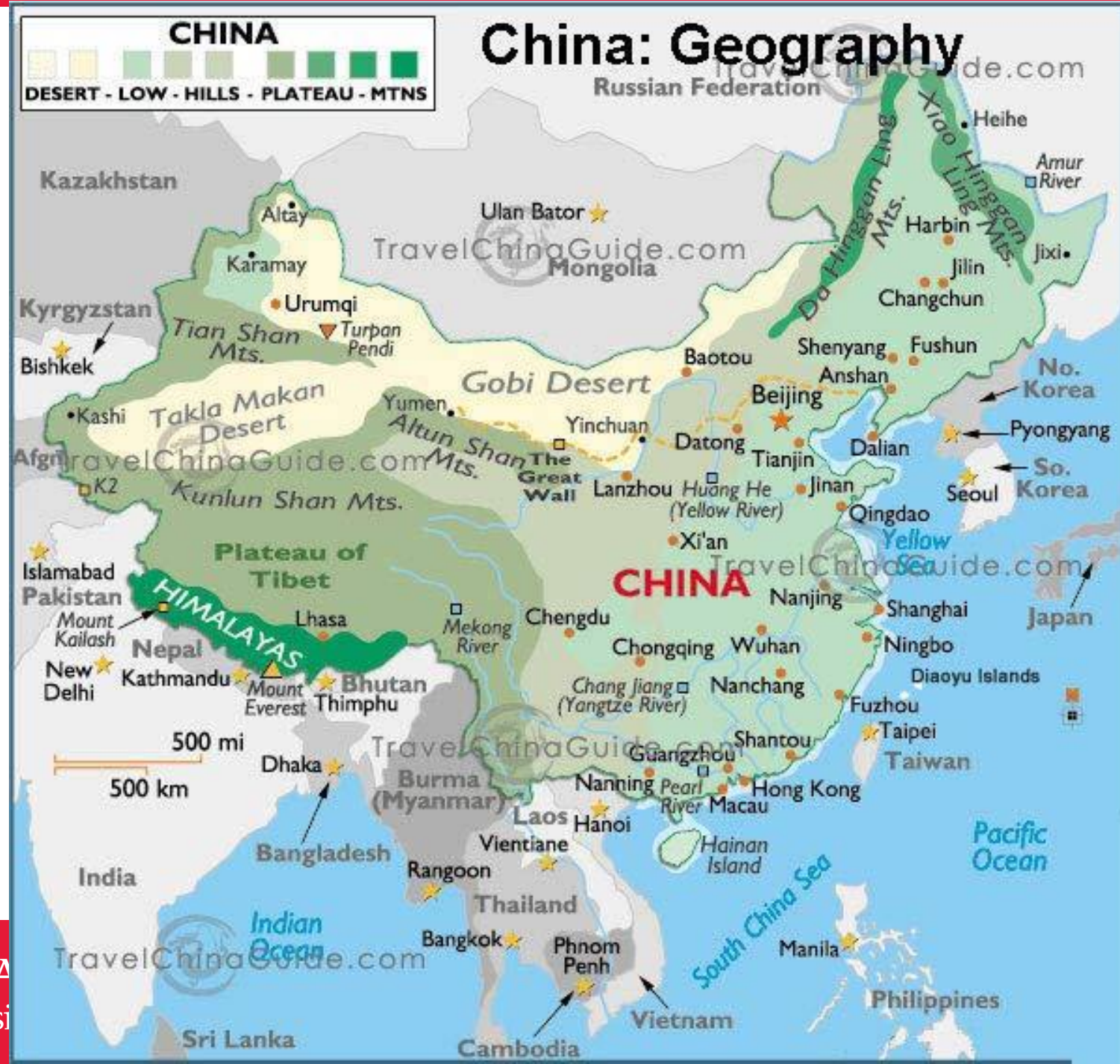
China Ag: quarterly Ag DM articles

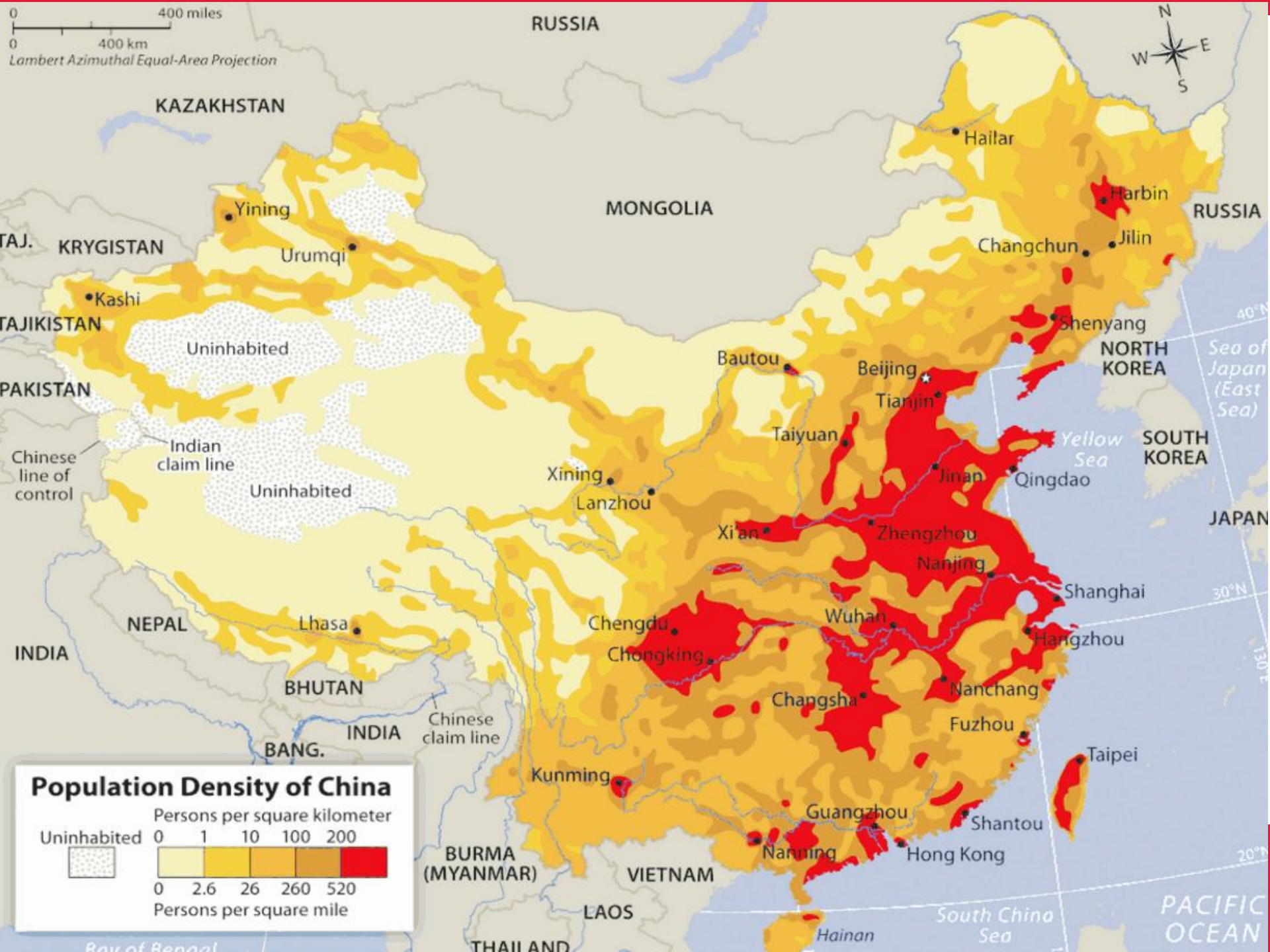
China's Provinces





China: Geography





My Hometown: Shenxian, Shandong Province



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莘县新闻网
<http://sx.lcxw.cn>

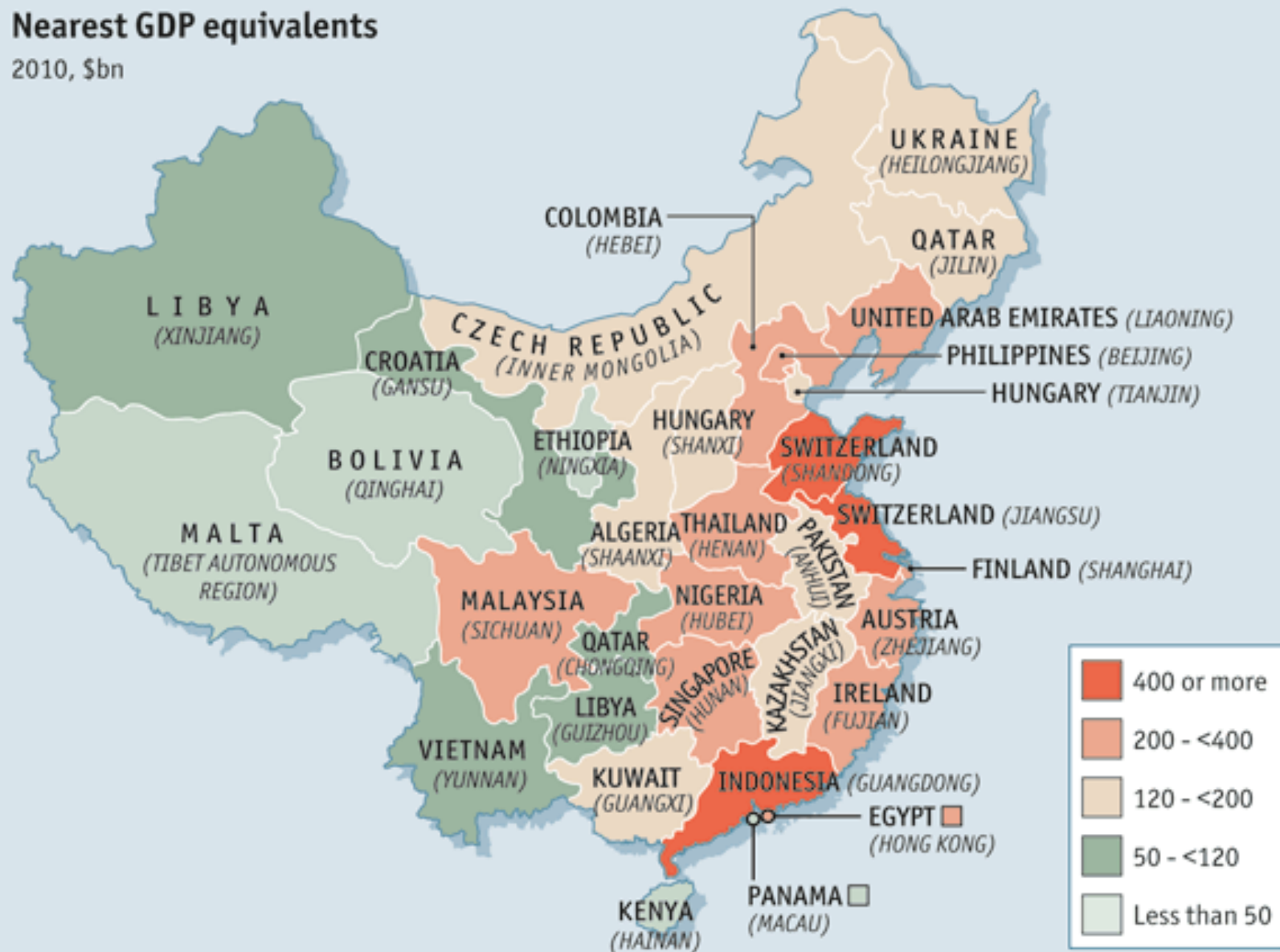
Intensification of Land-Use in China

Greenhouse – plastic film - Shandong Province

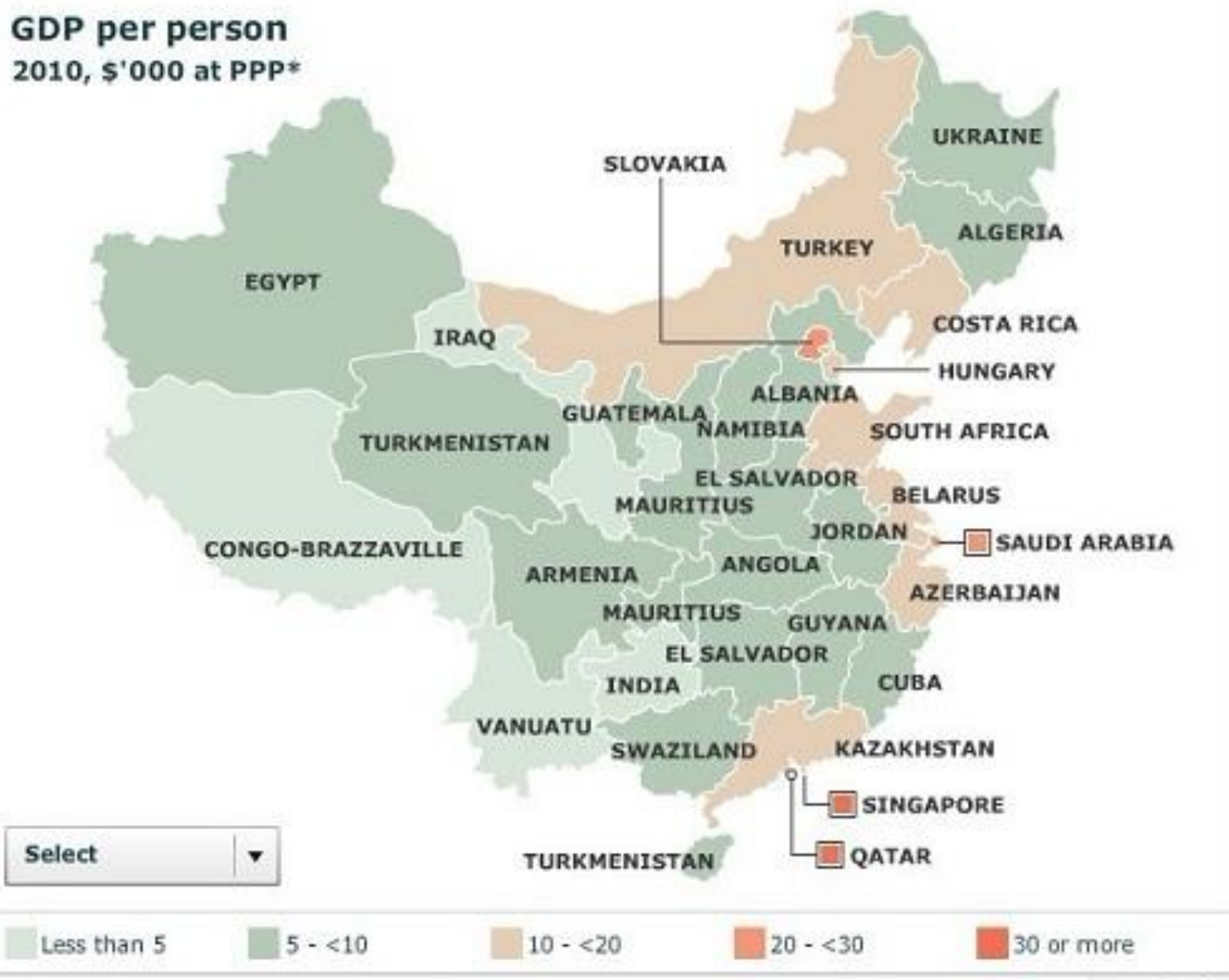


Nearest GDP equivalents

2010, \$bn



GDP per person
2010, \$'000 at PPP*



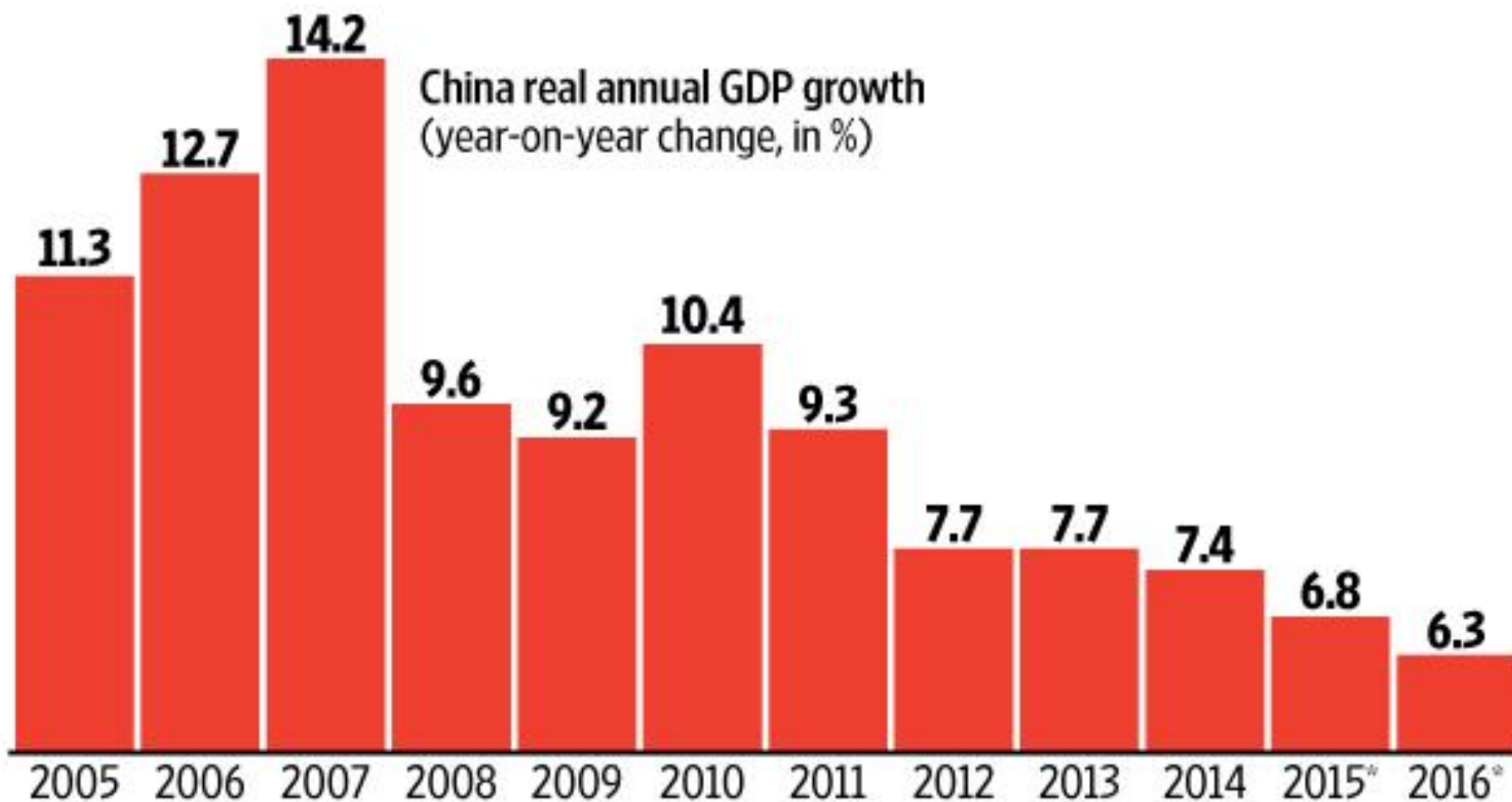
GDP growth, first half of 2016



Source: Wind Info

THE WALL STREET JOURNAL.

THE DRAGON SLOWS



*Projected % change by International Monetary Fund

Source: Bloomberg

Planned Network of High-Speed Rail Lines to Be Built By 2030

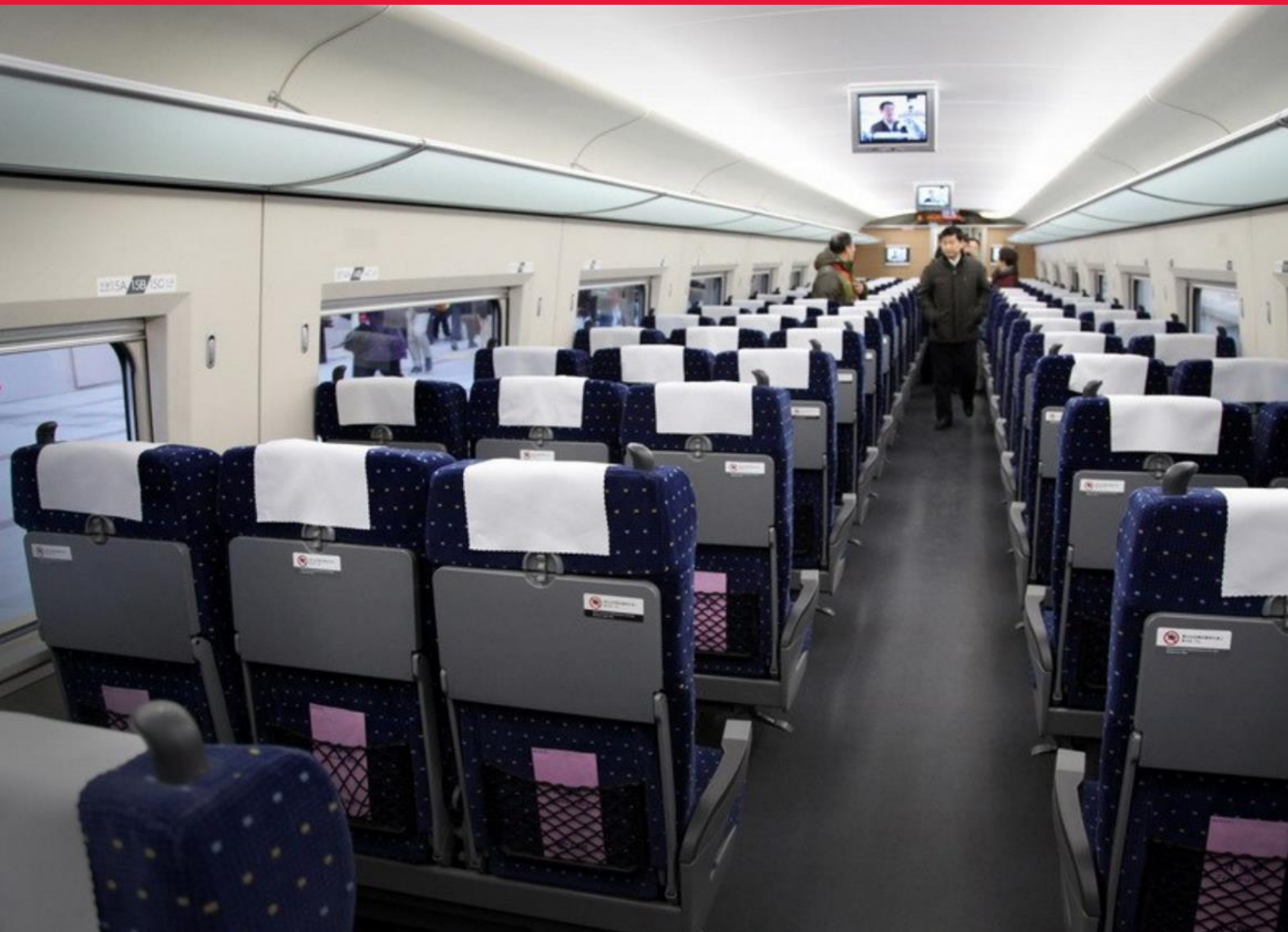


Source: National Development and Reform

High-Speed Rail in China





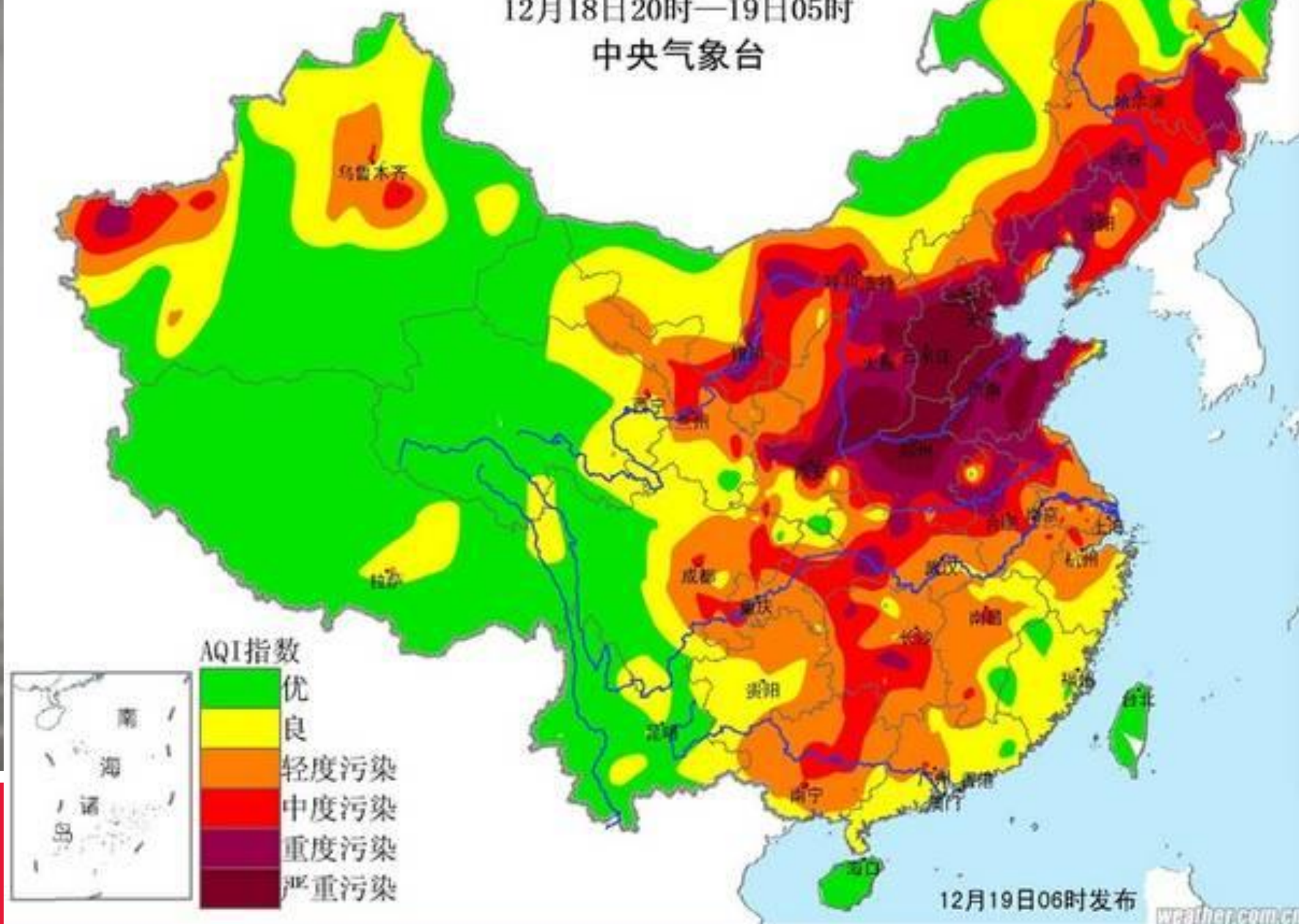




全国AQI指数实况图

12月18日20时—19日05时

中央气象台



12月19日06时发布

weather.com.cn



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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

China Corn Production



China Rice Production



China Wheat Production



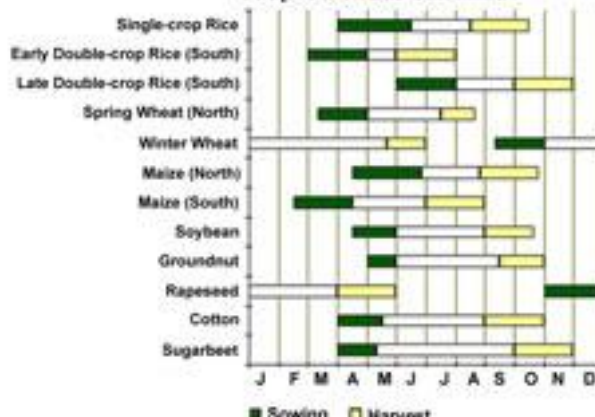
China Cotton Production



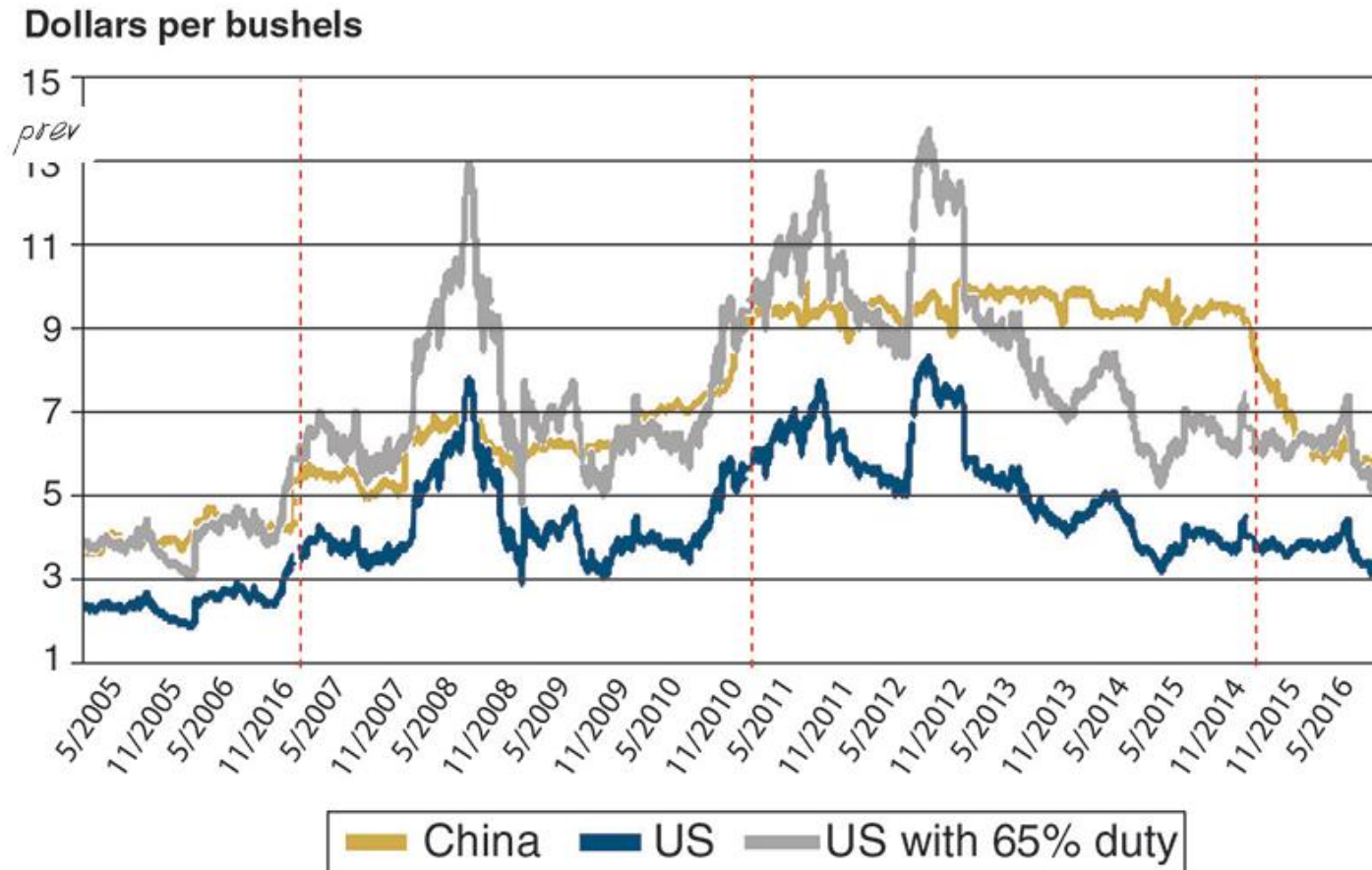
China Soybeans Production



Crop Calendar of China

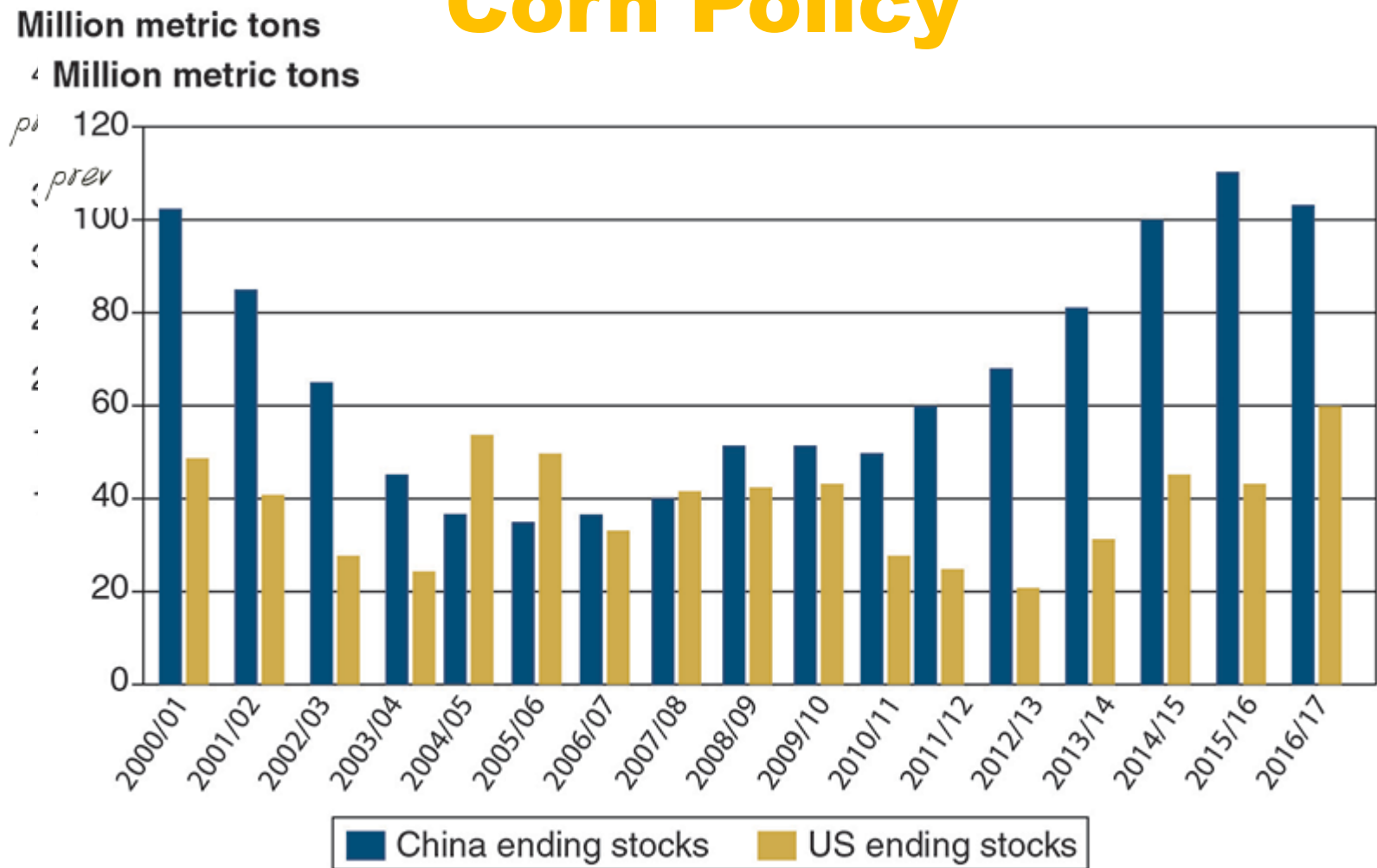


Of Maize and Markets: China's New Corn Policy



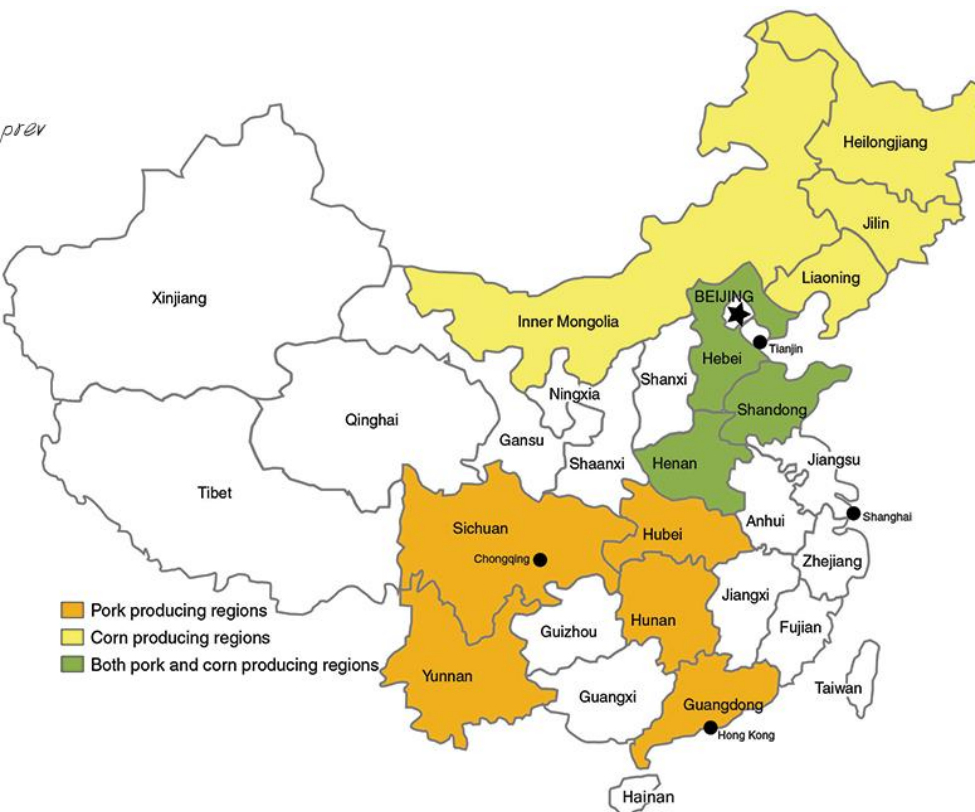
Source: <http://www.quandl.com/>

Of Maize and Markets: China's New Corn Policy



Source: USDA FAS Grain: world markets and trade

Of Maize and Markets: China's New Corn Policy



Sources: <https://www.statista.com/statistics/242632/corn-production-in-china-by-region/>
<http://chinaag.org/services/production/>



MILK PRODUCTION IN CHINA



GMO in China

转基因产品有哪些？

新京报制图/师春香



市面上的木瓜绝大多数是转基因品种，它转入的是抗坏血病病毒基因。这种病毒对木瓜是毁灭性的灾害，几乎都要用转基因技术来抗击这个病毒。



转基因大豆油占我国九成市场

搜狐新闻
news.sohu.com

美国开始批准种植转基因大豆

全世界12个国家种植转基因植物
面积3990万公顷

1995年

我国开始进口大豆
基本为非转基因大豆

1996年

1997年

我国批准进口转基因大豆
进口大豆288万吨

1999年

2012年

我国进口转基因大豆
5838万吨

美国



出口占总产量的45%
约3730万吨

转基因大豆占总产量的93%

15%认为不安全

64%不确定

21%认为安全

60%可以接受

转基因蔬菜水果谷类

中国



大豆油占51.7%
1160.2万吨

转基因大豆油占90%

主要作物：

大豆 棉花

玉米 油菜籽 甜菜 水果

中国转基因种植量居世界第四

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 critique
of GMO



GMO corn illegal



Crop Insurance in China

world's 2nd 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 2nd 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
- 2nd insurance market (similar to FarmerMac)

Future developments/trials

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

A Primer on China's Political System and Reform Logic

At the highest level, anyone who reaches the age of 68 before or during a party national congress cannot, under normal circumstances, be a candidate for the Politburo Standing Committee. Five of its seven current members — everyone except President Xi Jinping and Premier Li Keqiang — fall into this category ahead of next year's 19th National People's Congress.

Over the limit

Under

AGE: 71



Yu Zhengsheng
Chairman of the
Chinese People's
Political Consultative
Conference

AGE: 68



Liu Yunshan
Propaganda chief

AGE: 69



Zhang Gaoli
Vice Premier

AGE: 69



Zhang Dejiang
Chairman of the
Standing Committee of the National
People's Congress

AGE: 68



Wang Qishan
Secretary of the
Central Commission
for Discipline
Inspection

AGE: 61



Li Keqiang
Premier

AGE: 63



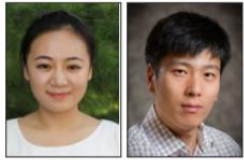
Xi Jinping
President,
General Secretary
of the Communist
Party of China

Source: Asia Times

China's Experimentalist Approach: Local Trial & Error + (RDA) Regional Tournament Competition for promotion

- Demarcation/certification of leasing rights for rural land: 22 [30] provinces (230 million rural households)
- Operating rights of leased rural land & Rural residence as collateral: 300 [3000] counties
- Bundling reform “rural land reclamation + rural residential land owned by collectives + rural residence rights system”: 33 [333] cities

Each trial area has a different approach, has a potential to become national policy



Of maize and markets: China's new corn policy

By Qianrong Wu, economics graduate student, qianrong@iastate.edu; Wendong Zhang, extension economist, 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

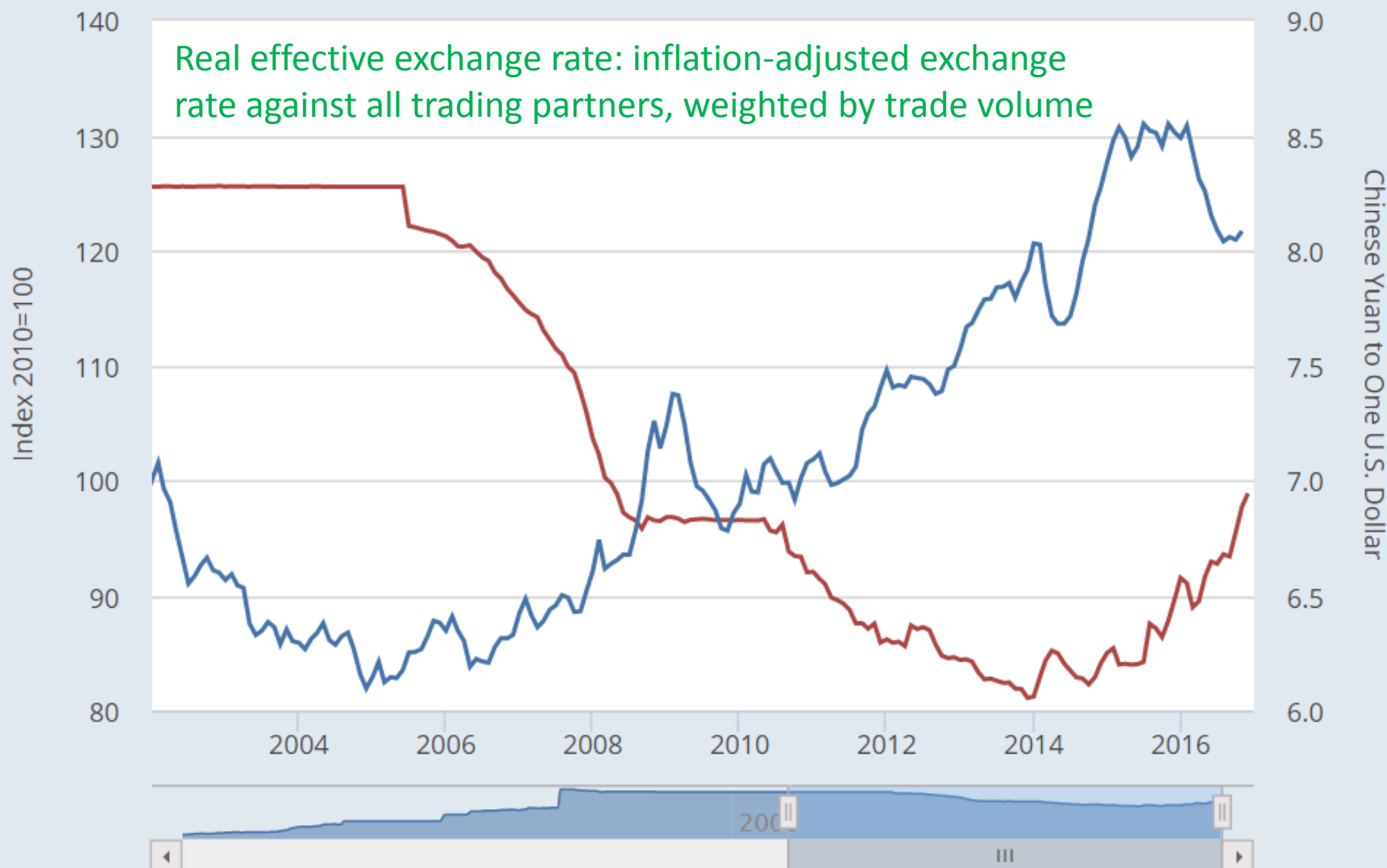
The Washington Post

By Jim Tankersley December 14 at 3:30 PM

Is China a Currency Manipulator?

FRED

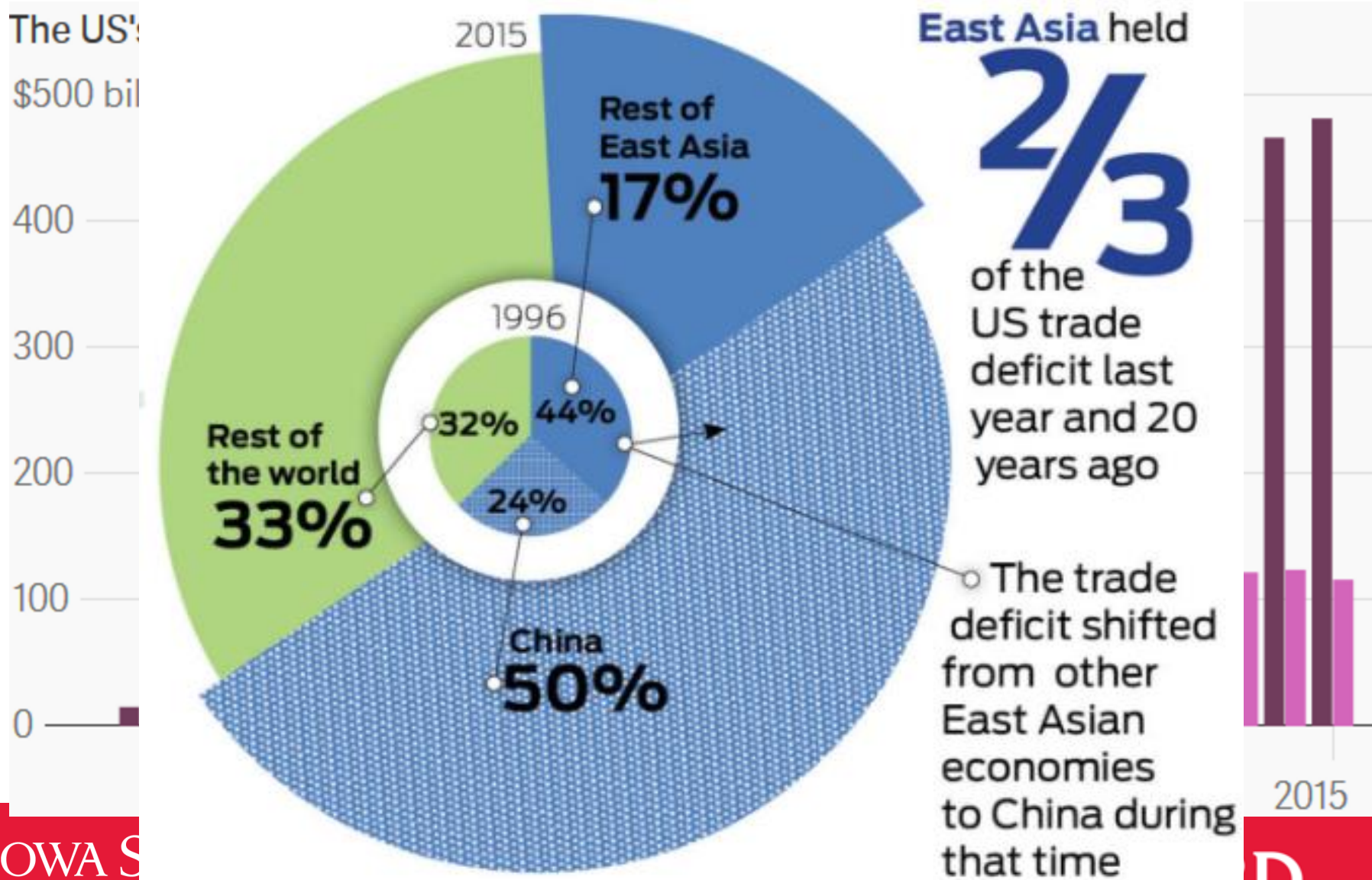
— China / U.S. Foreign Exchange Rate (right)
— Real Broad Effective Exchange Rate for China© (left)



Source: Bank for International Settlements

fred.stlouisfed.org

Growing Trade deficit w China



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

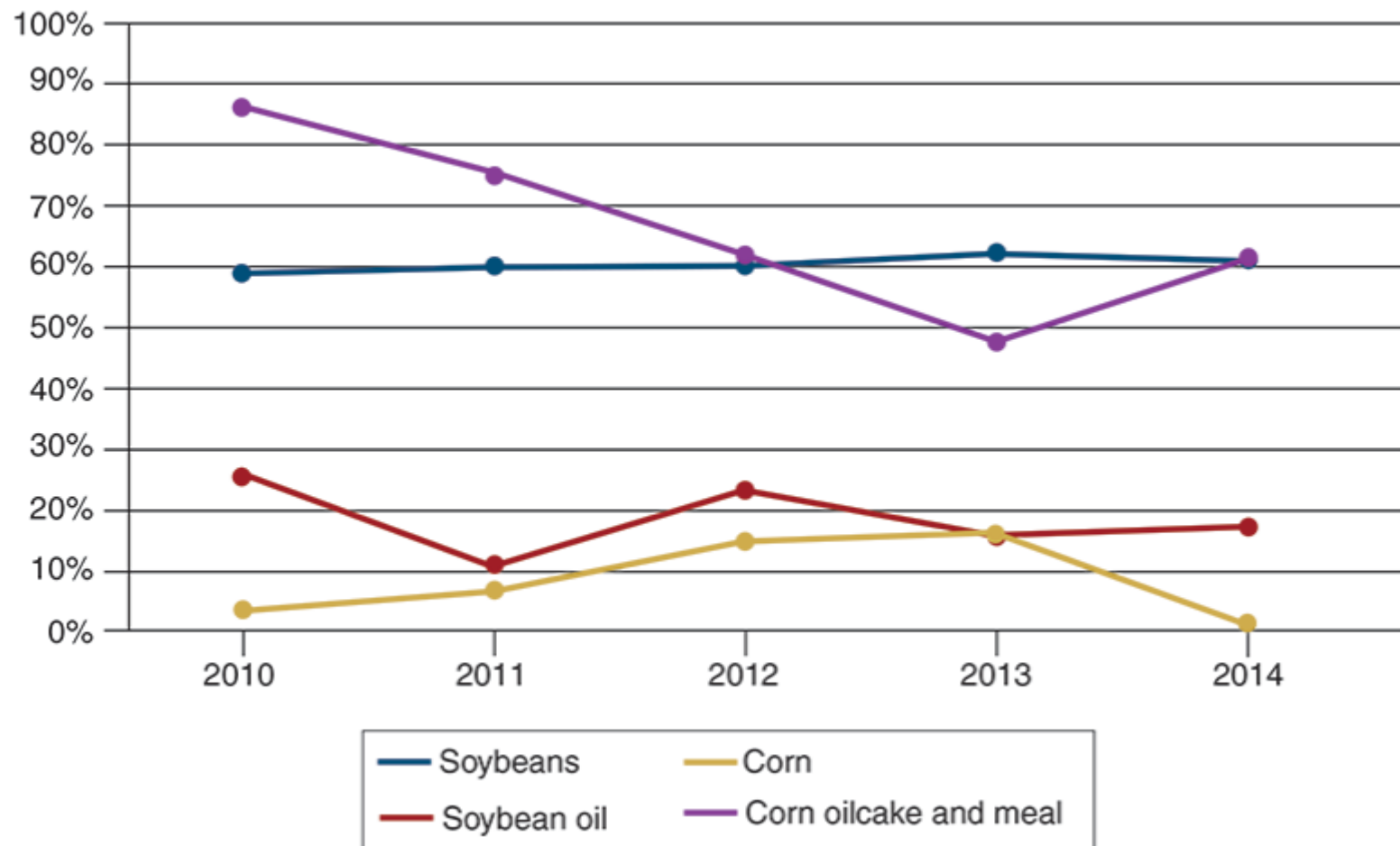
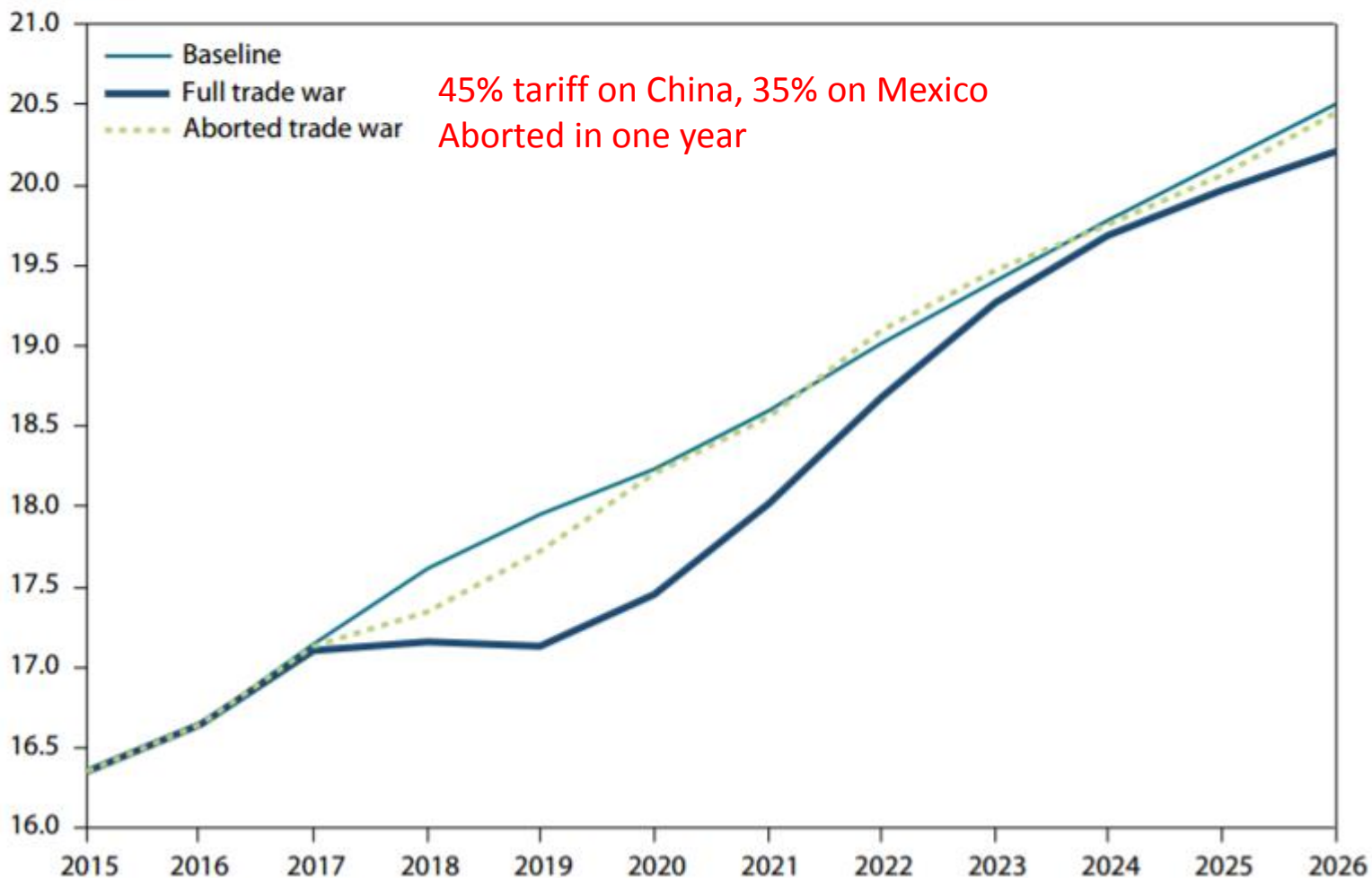


Figure 2.2 Projected US GDP under baseline, full trade war, and aborted trade war scenarios, 2015–26

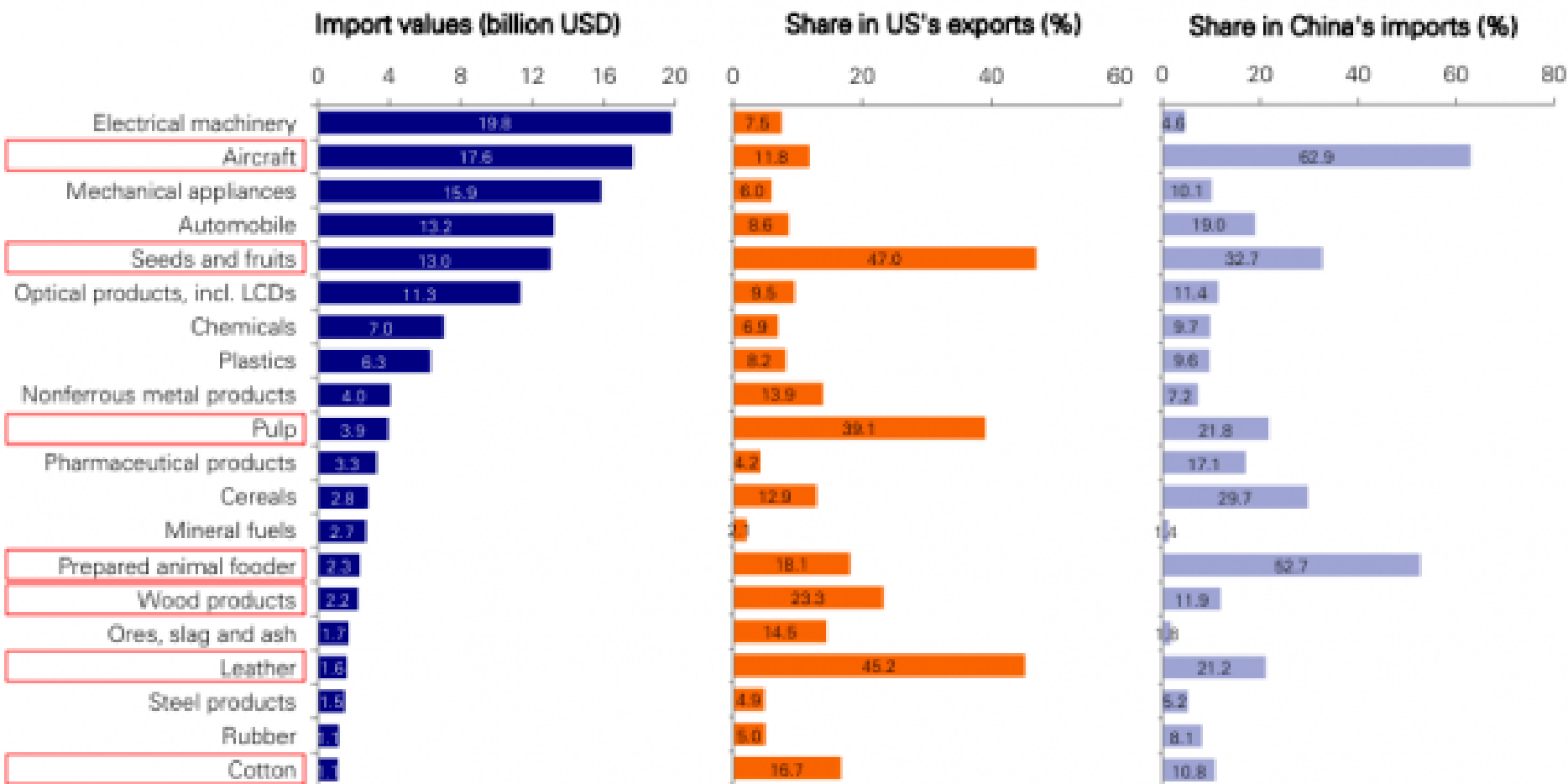
trillions of 2009 US dollars



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

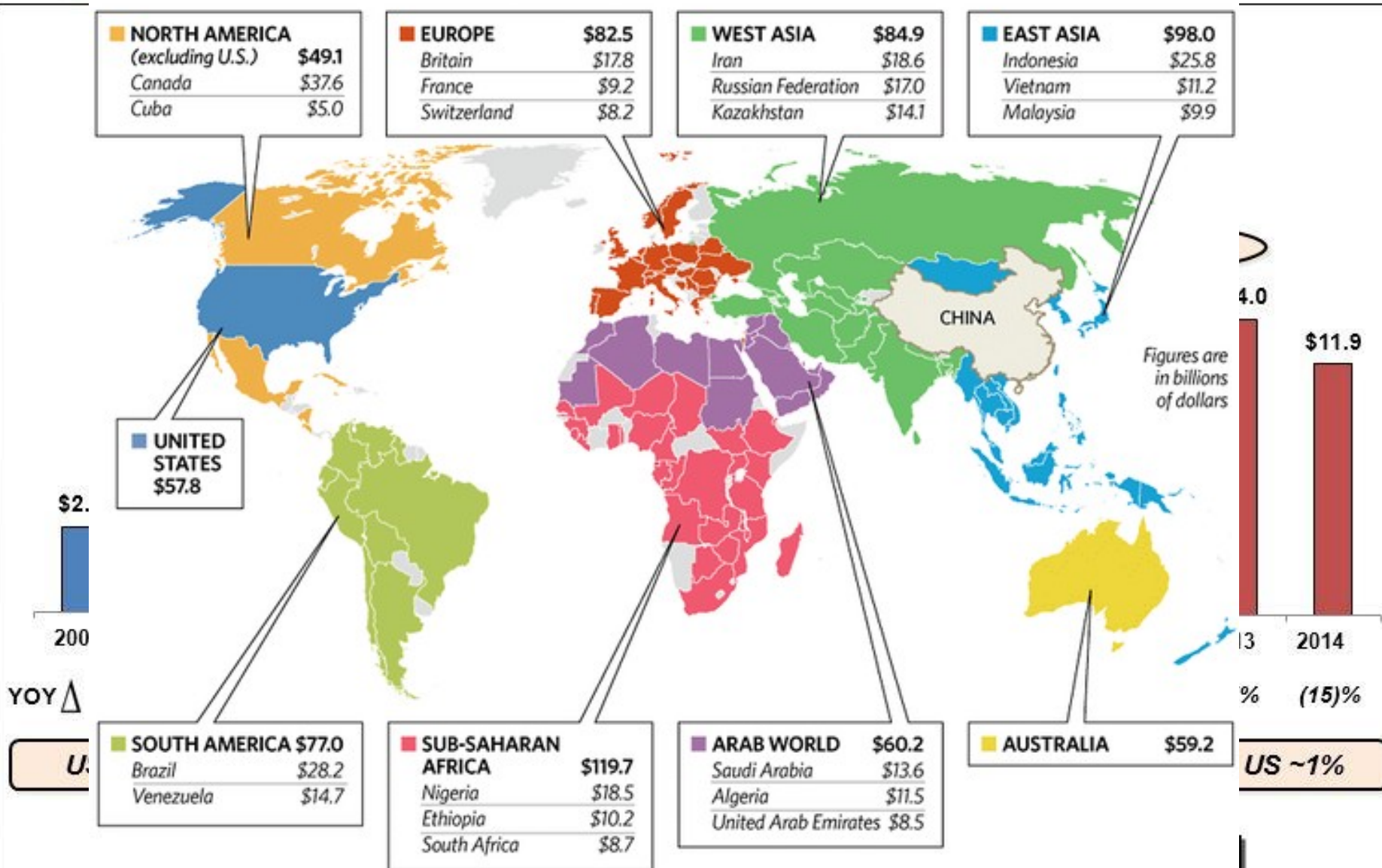


Source: Deutsche Bank, UN COMTRADE

China's Worldwide Reach

Sub-Saharan Africa sees very heavy Chinese construction activity. In investment, Australia holds a narrow lead over the U.S., followed by Canada and Brazil.

vestment



Source: The Heritage Foundation, China Global Investment Tracker dataset, updated July 2013,

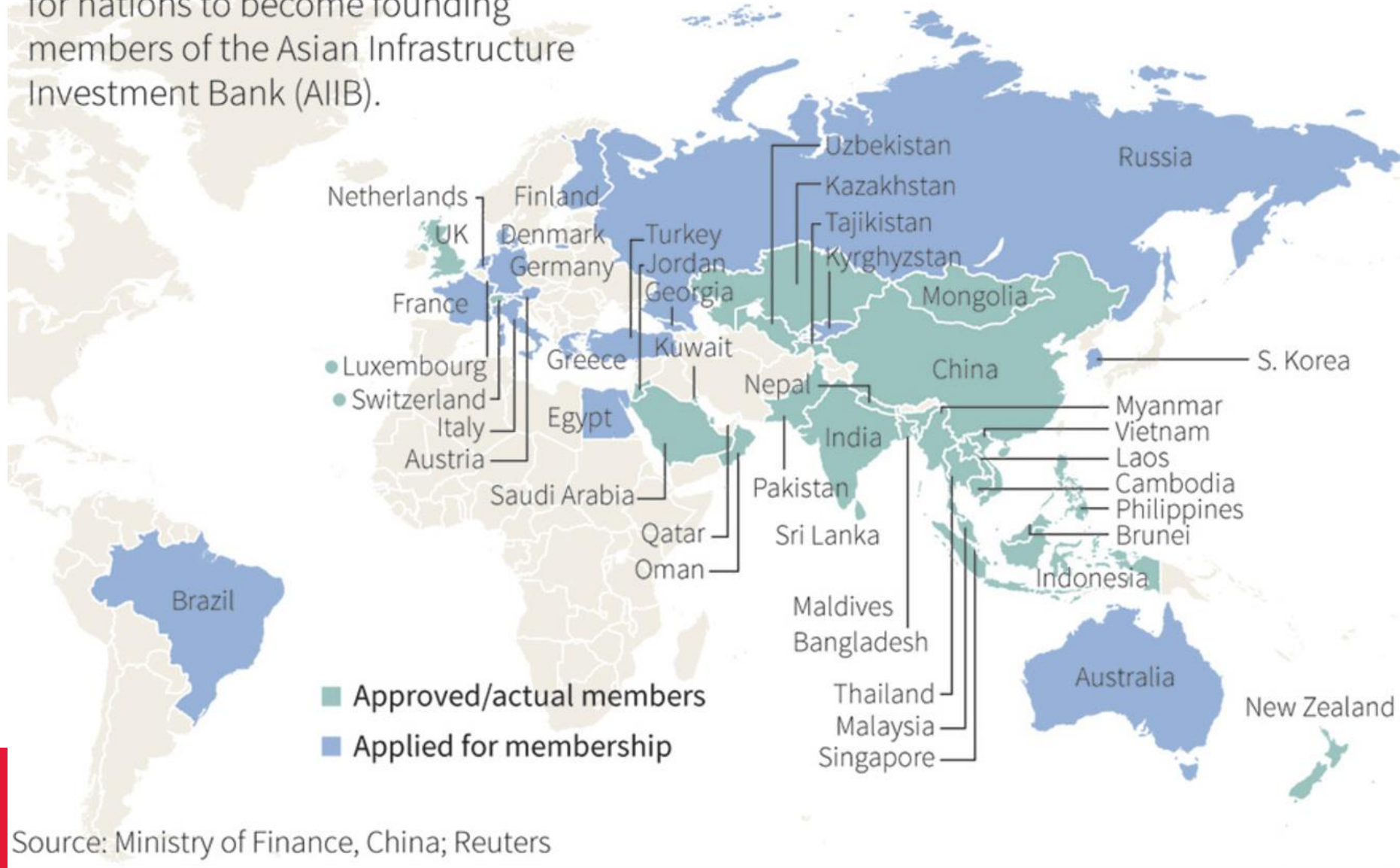
© 2015 https://thf_media.s3.amazonaws.com/2013/xls/China-Global-Investment-Tracker2013.xls

IB 3990 heritage.org

to US Source: OFII: at in a given year

AIIB founding members

China has set a March 31 deadline for nations to become founding members of the Asian Infrastructure Investment Bank (AIIB).



Source: Ministry of Finance, China; Reuters

China's tech trailblazers

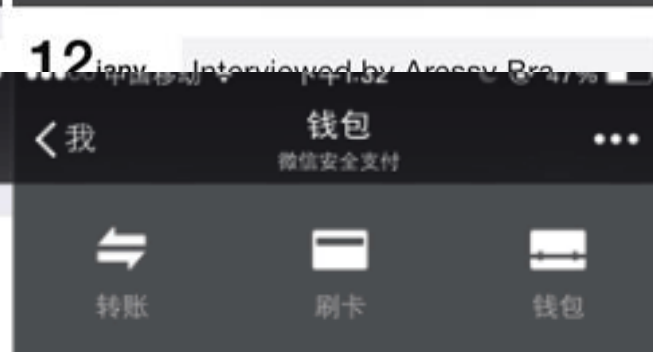
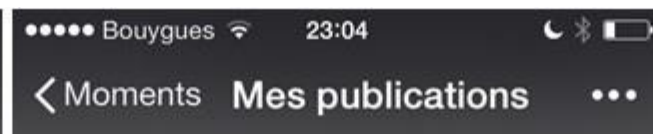
Coming of Age

The aggregate size of the Chinese internet industry has ballooned since 2006 as China shifts to a consumption-led economy. Tencent, Alibaba and Baidu have played key roles in driving the explosive growth.

Chinese Internet Companies (aggregate):



Source: Capital Group



Our Business + *Affiliate Businesses*

DIGITAL MEDIA & ENTERTAINMENT



CORE COMMERCE



LOCAL SERVICES



Data Refuel

PAYMENT &
FINANCIAL SERVICE



LOGISTICS



Data Creation

MARKETING SERVICES
DATA MANAGEMENT PLATFORM



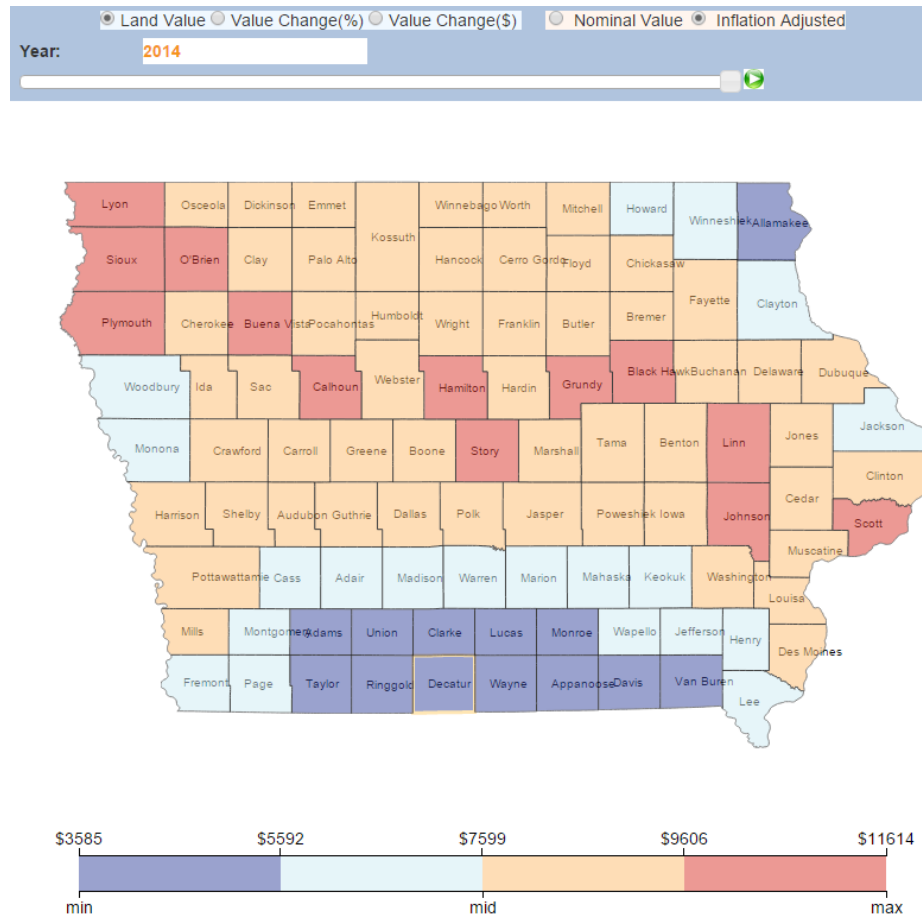
CLOUD COMPUTING



Iowa Farmland Value Portal

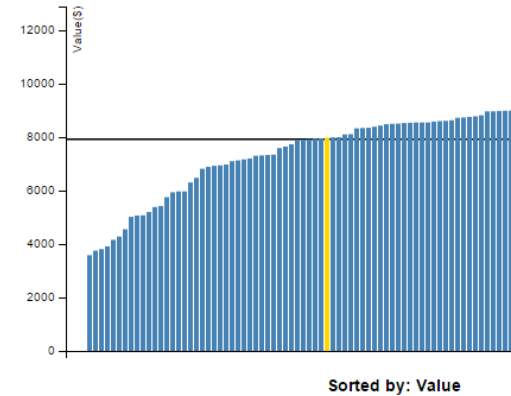
www.card.iastate.edu/farmland

twitter
#ISUlandvalue

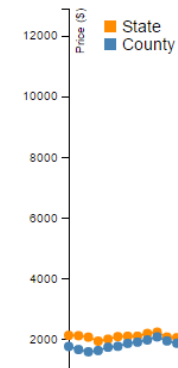


County Search county ...

Iowa County Land Value in 2014



Land Value Trend in County: Dubuque



Thank You!

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