

# Trade War and Missed Trade Opportunities

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# A Quick Introduction: Dr. Minghao Li

- Grown up in NE China
- Ph.D. in Ag Econ in 2017 from Penn State
- Currently a postdoc research associate working with Dr. Dermot Hayes and Dr. Wendong Zhang
- Research and extension interests: Chinese agricultural economy, international ag trade

China Ag center [www.card.iastate.edu/china](http://www.card.iastate.edu/china)

# Today I will talk about:

- The trade war
- African Swine Fever in China
- China's E10 ethanol mandate



# Trade war review:

## US

- January 2018, solar panels and washing machines
- March 2018, steel (25%) and aluminum (10%)

## China

- Sorghum
- 128 products, including pork (25%)

# Trade war review:

## US

- June and August, 25% tariffs on 50 \$B Chinese exports
- September, 10% tariffs on 200 \$B Chinese exports

## China

- 25% tariff on 50 \$B US exports, including pork and soybean
- 5%-10% tariffs on 60 \$B Chinese exports

# Currently:

- The 10% tariffs on 200 \$B products is scheduled to increase to 25% at the end of February if negotiation fails.



## China's strategy:

- Proportional and restrained response
- Target products that substitutable
- Target products that cause economic and political harm to the US

Minghao Li, Wendong Zhang, and Chad E. Hart. 2018. ["What Can We Learn about U.S.-China Trade Disputes from China's Past Trade Retaliations?"](#)

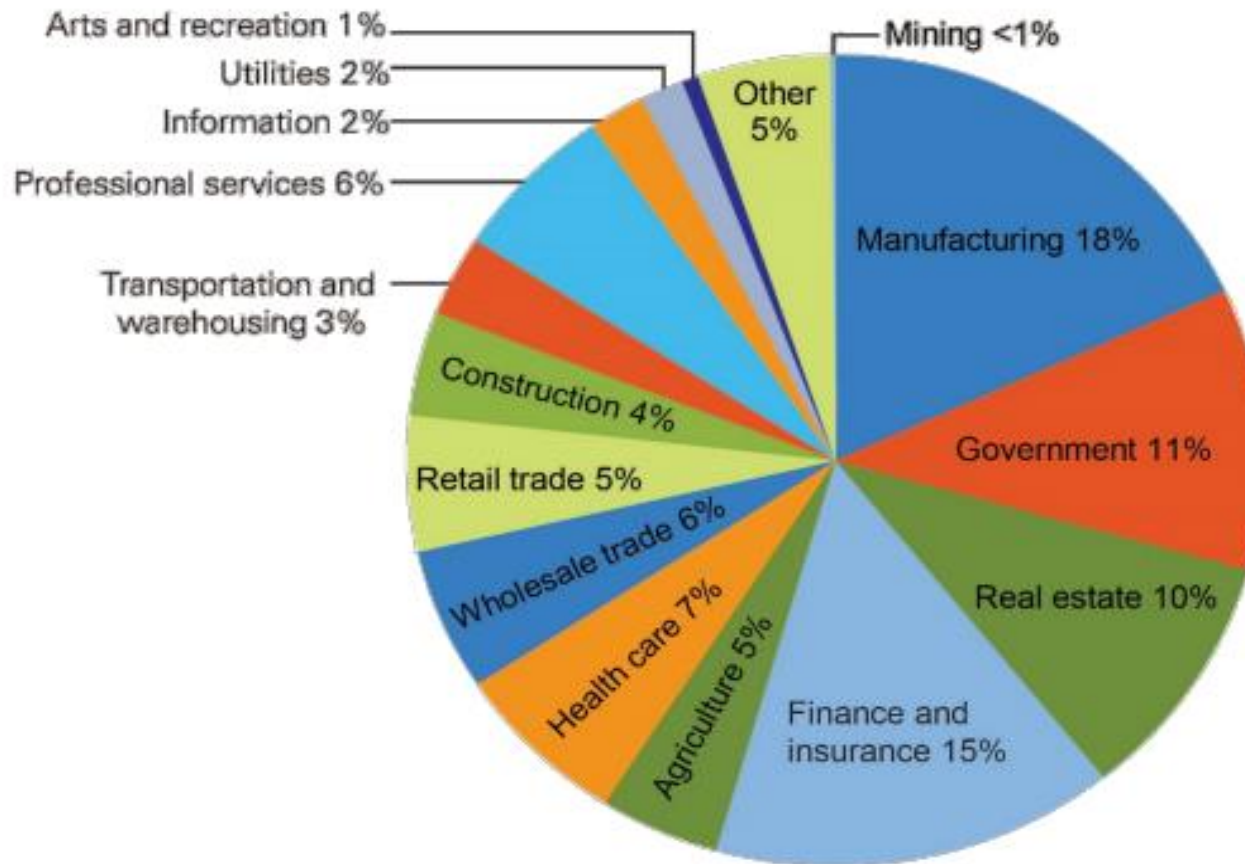


# Impacts on the US economy

- Impact on US welfare (think GDP): -0.14%~-0.23%
- Sectors that suffer most: soybeans (-15% in output value), cotton (-13%)
- Sectors that benefit most: electronics, steel and iron
- Export to China: -43.0% ~ -54.4%



# The Iowa economy



**Figure 1. Sectors of Iowa's Gross State Product, 2017**

*Source: BEA*

# Impacts on the Iowa economy

- Impact on Gross State Product: -1 to -2 \$Billion
- Percentage change: -1%~-2%
- Trade subsidy (Market Facilitation Program) will give Iowa farmers 0.55 \$Billion, no enough!

Minghao Li, Edward J. Balistreri, Wendong Zhang. 2018. ["The 2018 Trade War: Data and Nascent General Equilibrium Analysis."](#)

Edward J. Balistreri *et. al.* 2018. ["The Impact of the 2018 Trade Disruptions on the Iowa Economy."](#)

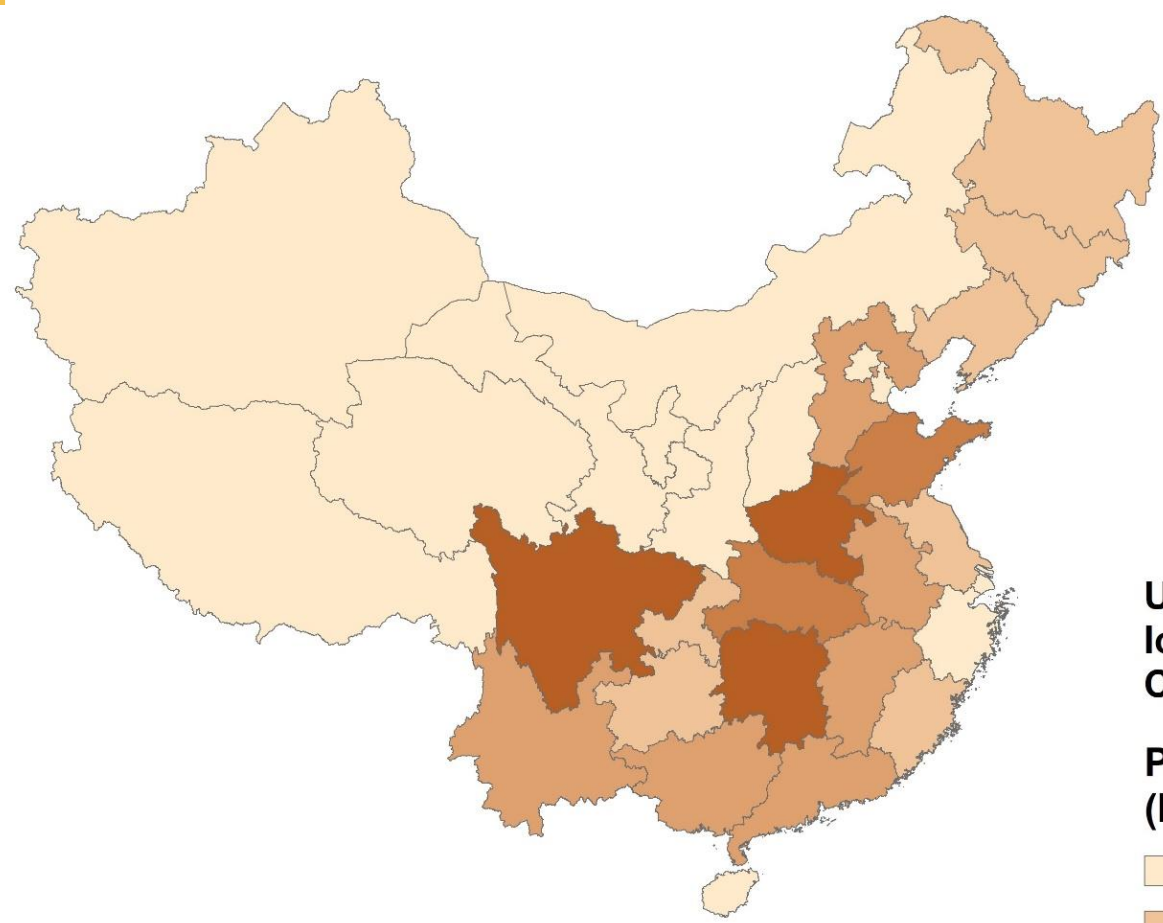
# Missed export opportunity: African Swine Fever in China



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






# Pork production in China vs. US and Iowa



**US: 25 Bil. lbs**  
**Iowa: 9 Bil. lbs**  
**China: 117 Bil. lbs**

**Pork production  
(Iowa=100%)**

-  < 30%
-  31% - 60%
-  61% - 80%
-  81% - 100%
-  >100 %

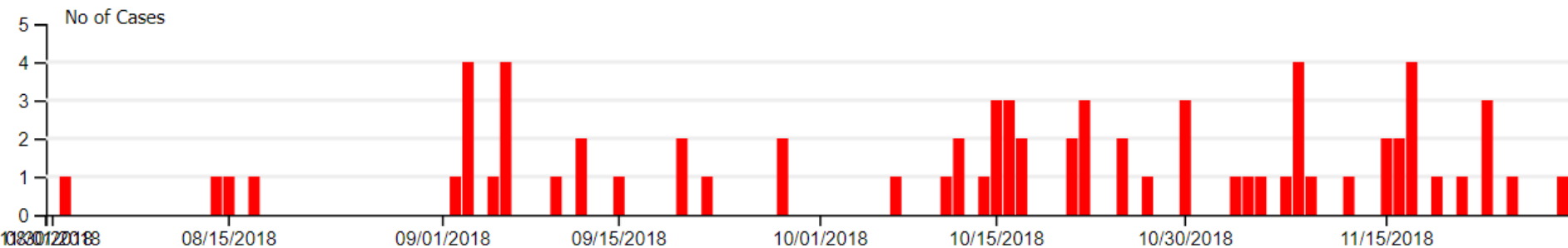
# What is African Swine Fever?

- Hog disease, does not affect humans
- Highly contagious, mostly through contacts
- Highly lethal, mostly die within 10 days

# ASF in China:

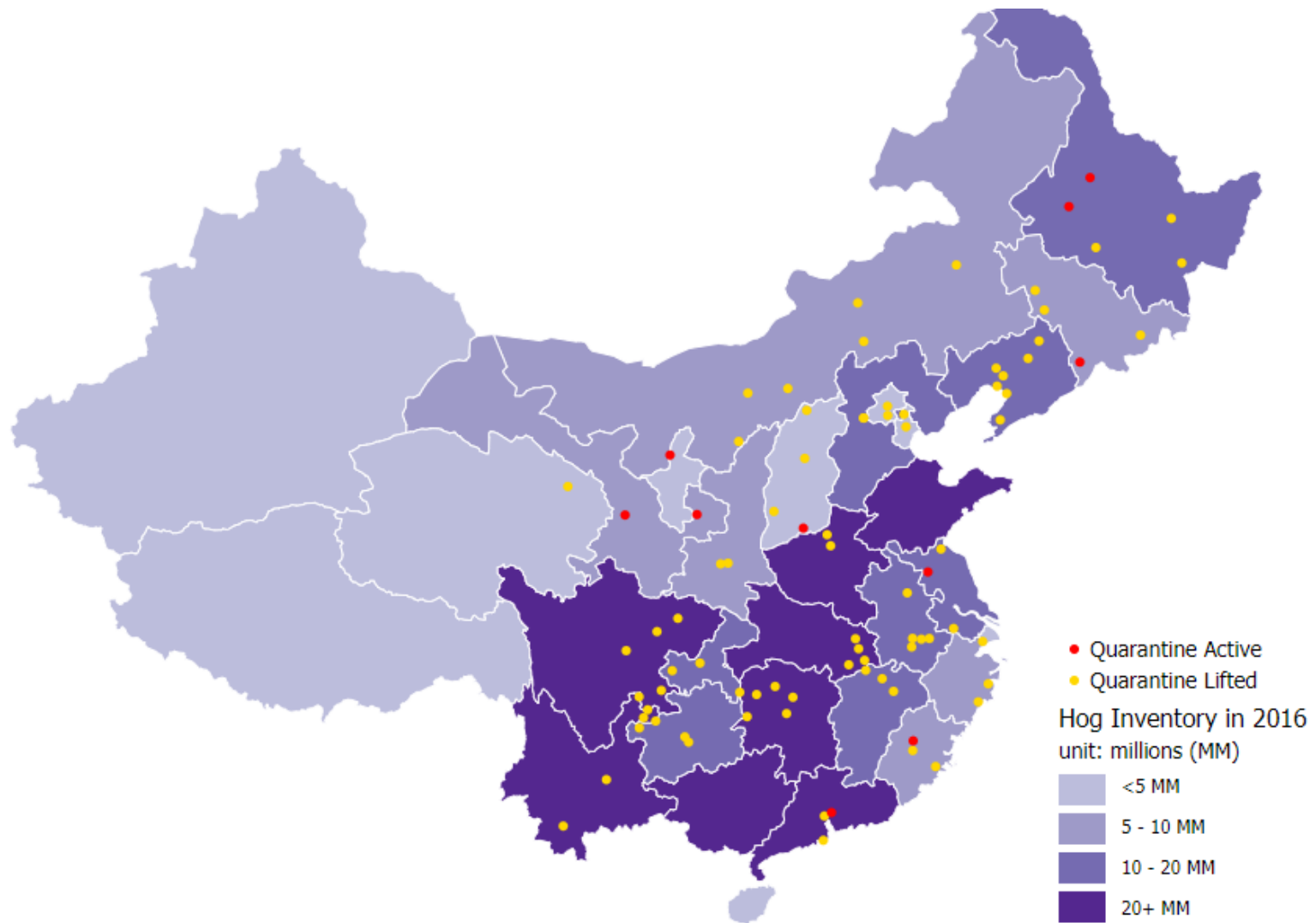
- First case in August 2018 in NE China
- More than 90 cases by the end of 2018
- More than 120 thousand pigs directly affected.

# Cases so far:





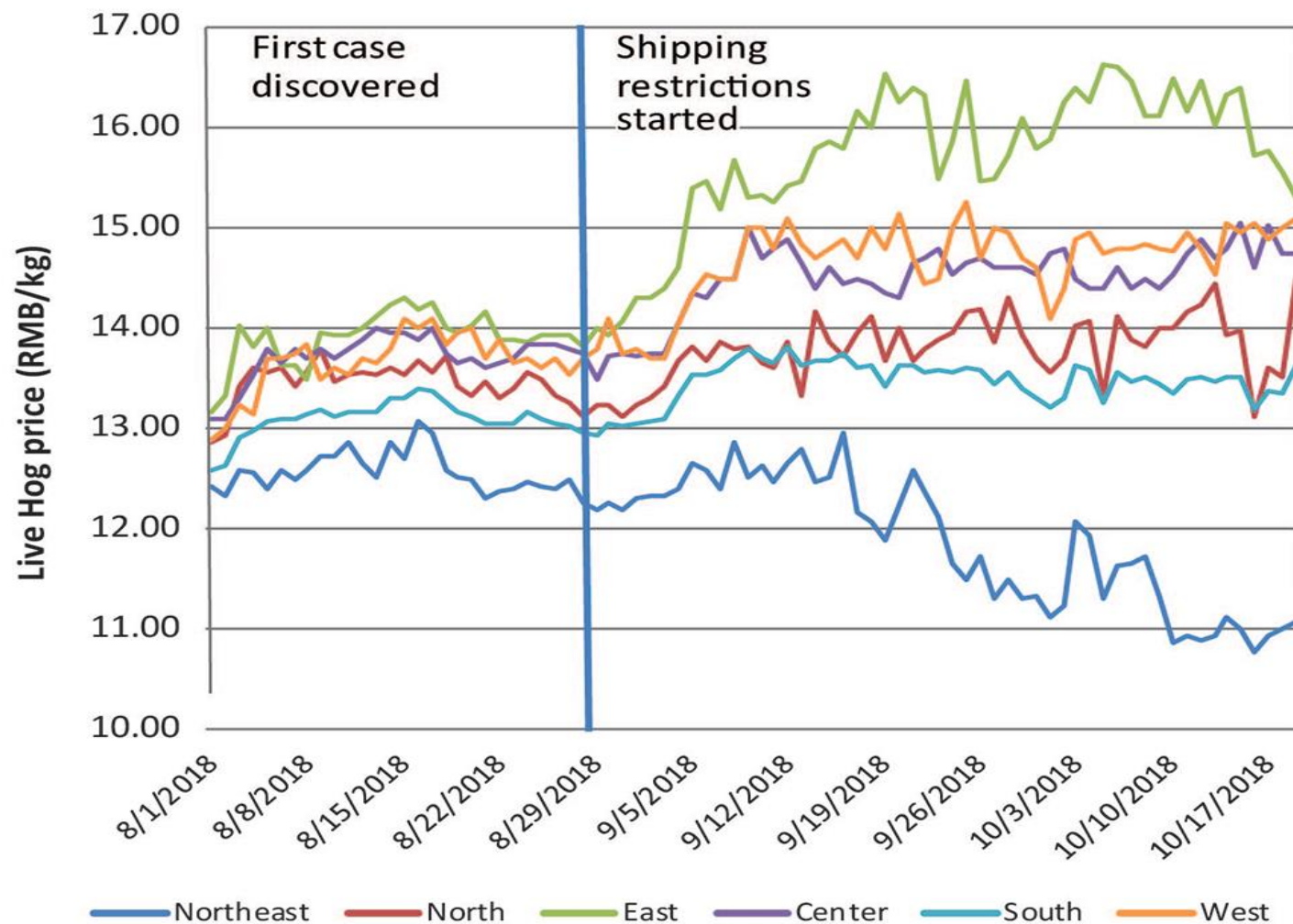
# Cases so far:



# Government response:

- Setting up quarantine areas and culling pigs (200,000 pigs?)
- Banning feeding hog with food waste
- Restricting hog and pork transportation across provinces

# Transportation restrictions cause regional hog imbalance and price divergence:



# Missed export opportunity:

- If high prices in certain regions continue, there may be a need to import pork.
- However, tariffs on certain hog products have increased by 50% due to trade war.
- It is unlikely that China will import from the US.

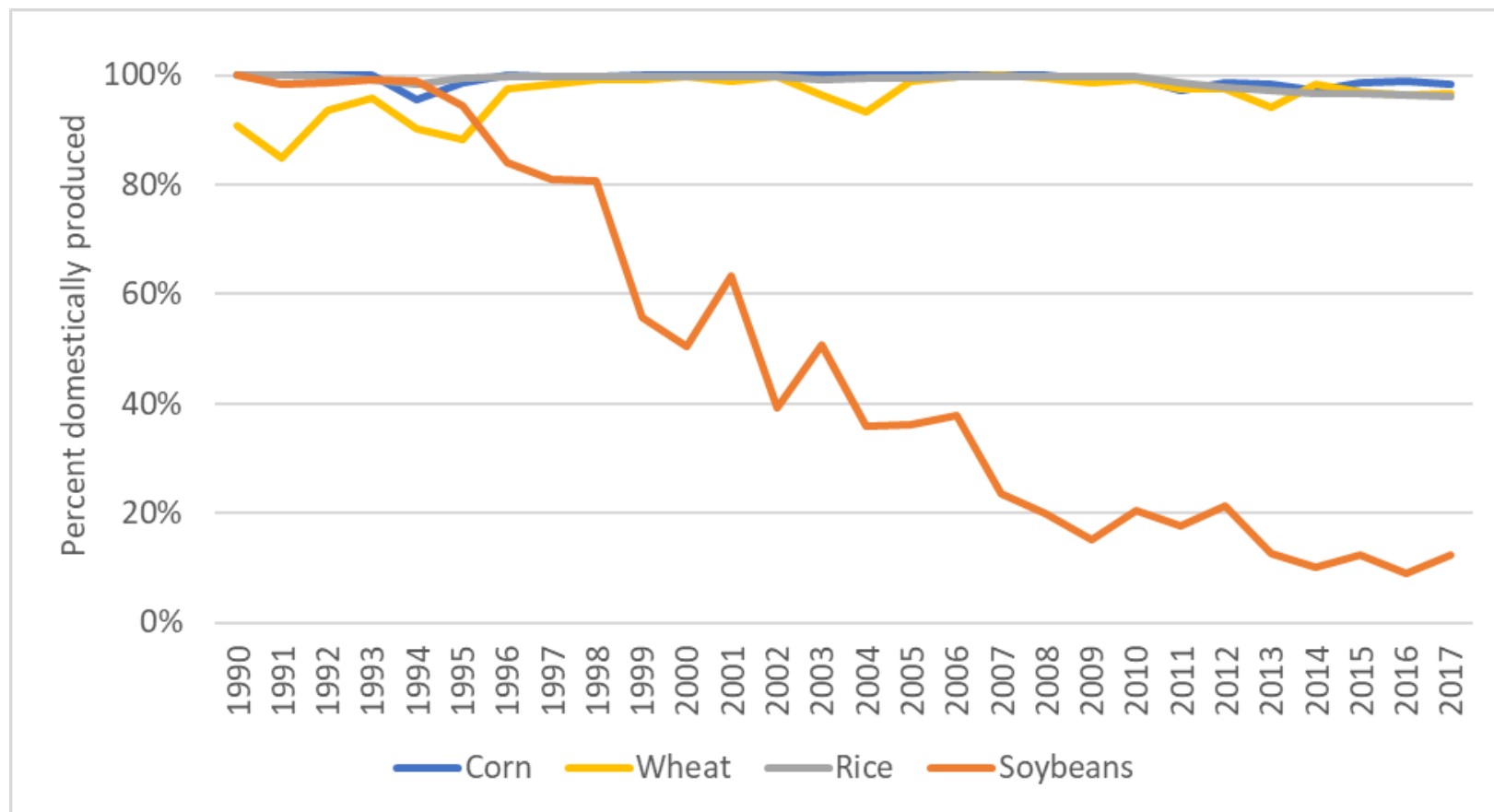
# Missed export opportunity: E10 ethanol mandate



# China's Ethanol Mandate

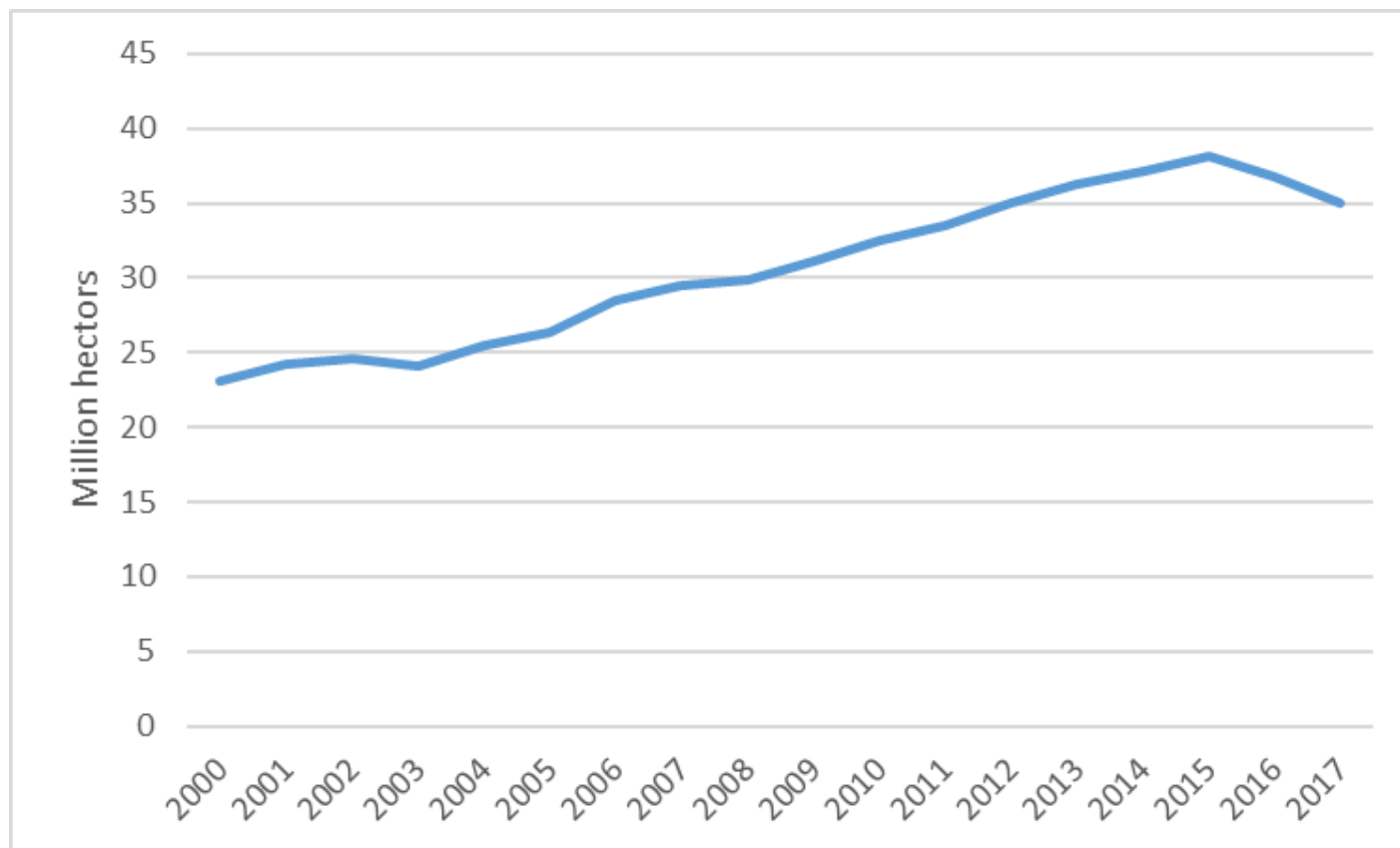
- In 2017, China announced that it will impose nationwide E10 (gasoline containing 10% ethanol) mandate by 2020.
- That means, all vehicles have to use gas with 10% ethanol, no options!
- In China fuel ethanol is mostly made from corn. The mandate will increase corn demand by 8.3%.

# China does not want to import corn (graph below: self-sufficiency rate for crops)

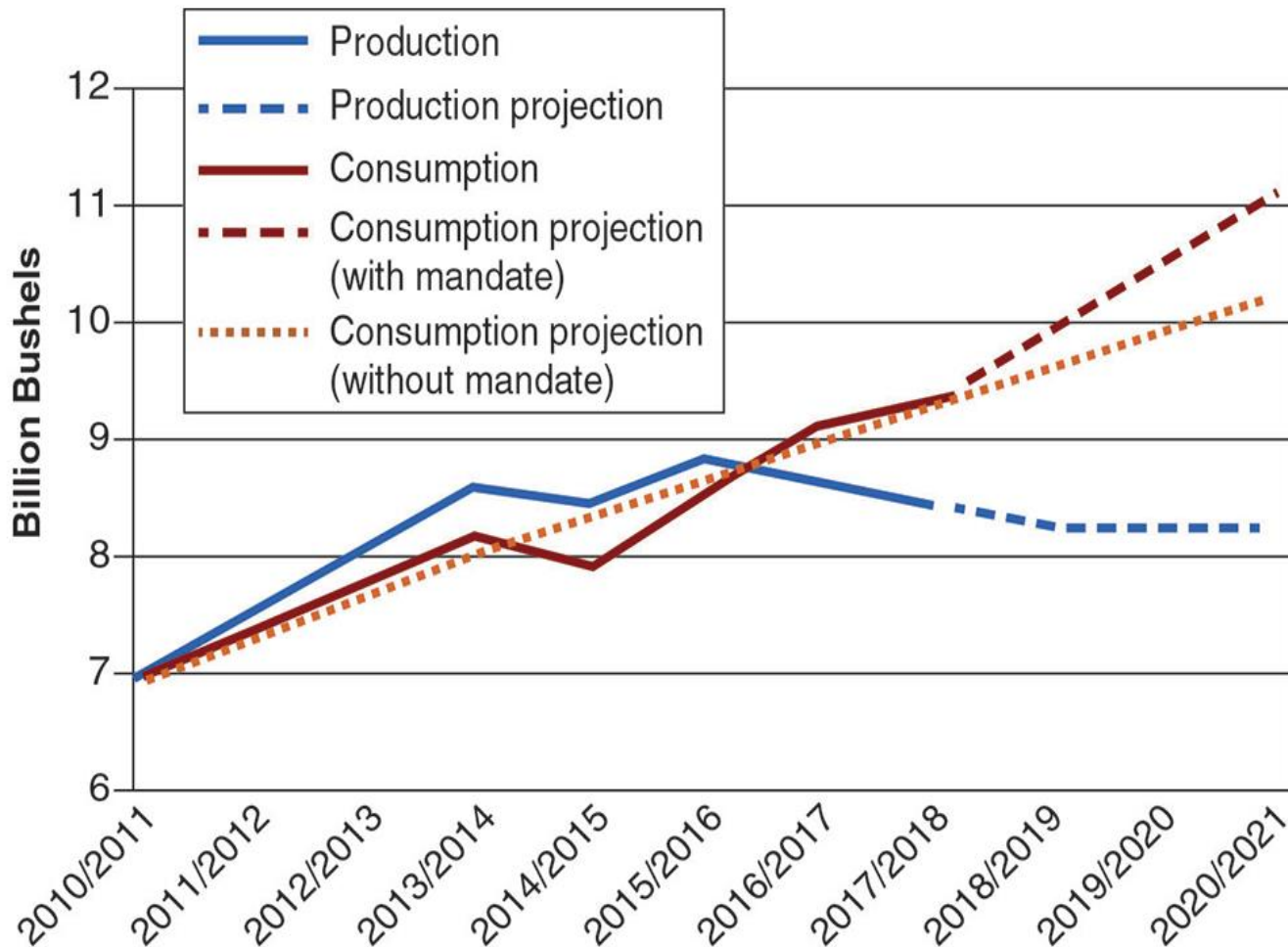




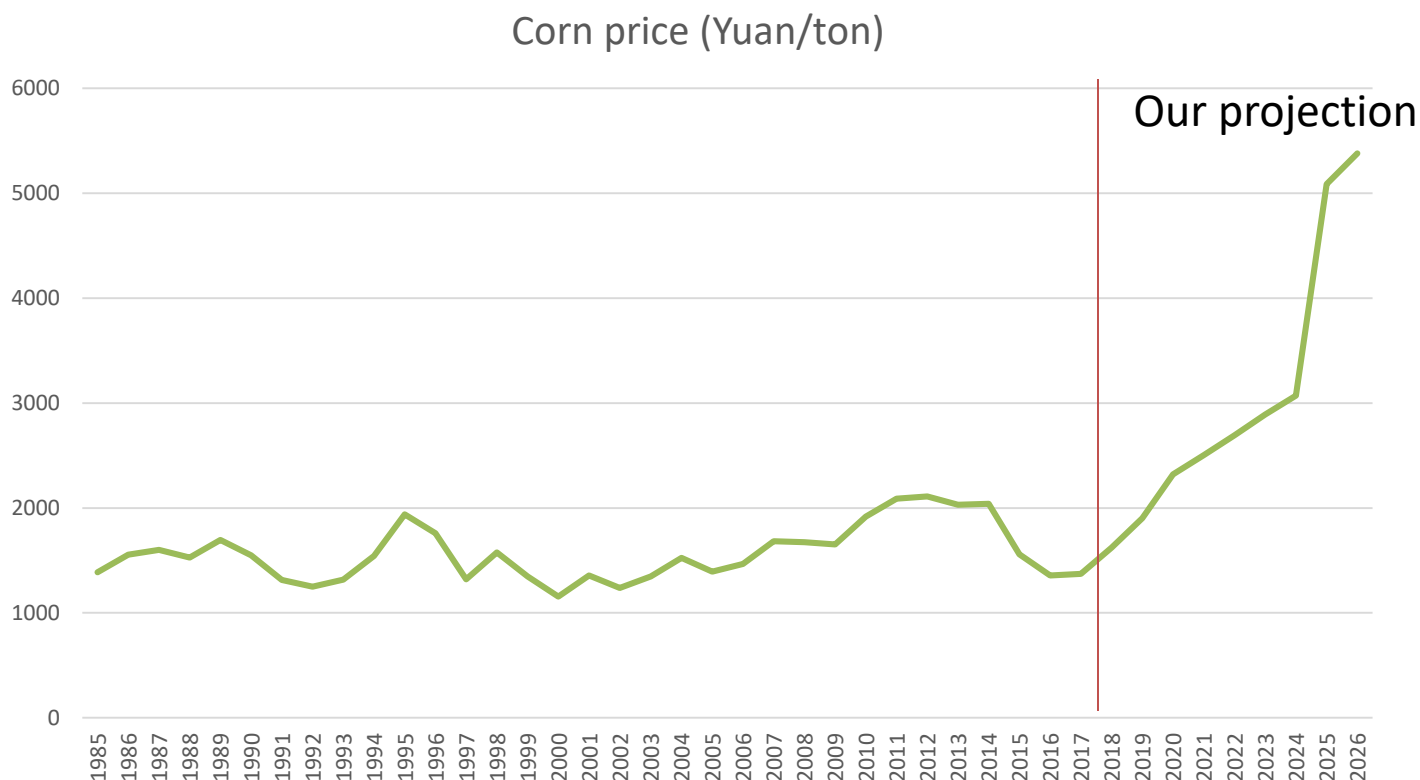
# China wants to limit corn production (graph below: corn area planted)



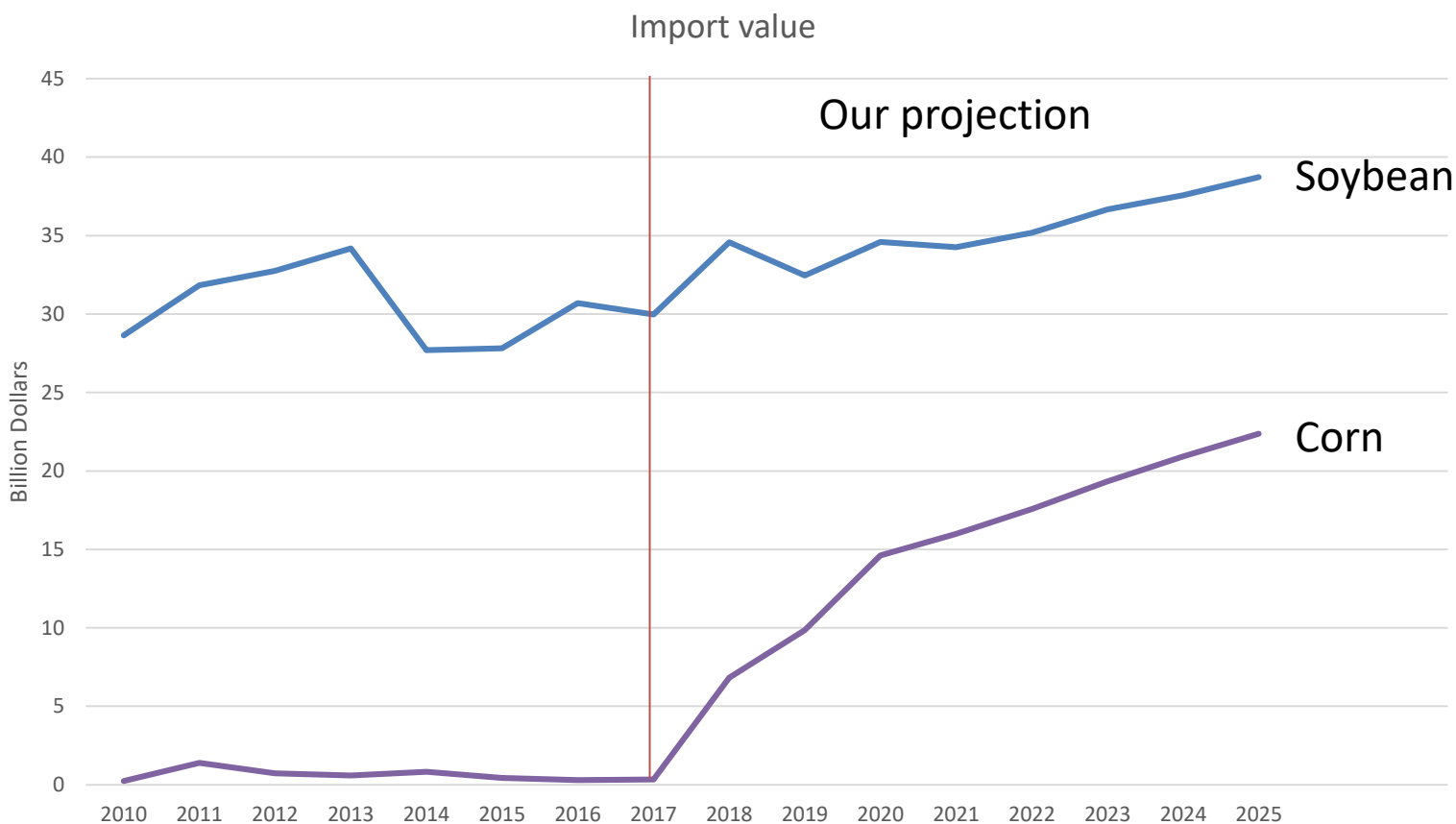
# There won't be enough corn to meet the E10 mandate:



# If China continues down this path, corn price will become very high:



# If China decides to open up corn trade, the potential trade value will exceed half of the soybean trade value:



# Missed export opportunity:

- Our analysis shows that China will not be able to meet the E10 mandate with domestic production.
- Other than importing corn, another option is to directly import ethanol.
- China won't import corn or ethanol if trade dispute continues.

# Thank You!

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