

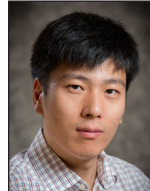


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Seven things to know about China to understand the trade war

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The year 2018 witnessed arguably the largest trade war in human history, and the trade disputes between the United States and China quickly escalated to a scale without precedent. As of now, the United States imposed tariffs on more than \$250 billion worth of products from China, and China retaliated with tariffs on more than \$110 billion worth of U.S. products, including notably substantial tariffs on U.S. agricultural products such as soybeans, pork, and ethanol.

Since the Trump-Xi G20 Summit in December 2018, we are effectively in a 90-day truce with the two sides agreeing to hold off further escalations and actively negotiate for a trade deal. Since January 2019, U.S. Trade Representative Robert Lighthizer and Chinese Vice Premier Liu He led two rounds of mid-level and high-level negotiations and made some progress including the recent Chinese pledge to purchase

an additional five million metric tons of soybeans (183.7 million bushels). It is also reported that before the March 2 deadline of the 90-day truce, President Trump may have a summit with Chinese President Xi Jinping in China in late February, after the Chinese New Year, to negotiate the details of the trade deal. That said, there is still significant uncertainty regarding the U.S.-China agricultural trade: all tariffs such as the 25 percent additional tariffs on soybeans are still in effect, and the negotiations still need to deal with more difficult items such as intellectual property protection, market access of U.S. firms into China and Chinese industry subsidy policies.

In this article, I outline seven economic, cultural and political facts about China to better understand the trade war. The aim is to help U.S. producers, agricultural professionals, and policymakers to better understand the broader context of the trade

war, the immediate and long-term implications for U.S.-China economic relations especially U.S. agricultural exports to China, as well as the growing need to better understand Chinese agriculture and economy, producers and consumers. It is important to note that this article only represents my personal opinions of the evolving trade issues.

1. Row crop agricultural production is not China's comparative advantage

A critical economic concept related to agricultural trade is *continued on page 2*

Handbook updates
For those of you subscribing to the handbook, the following updates are included.
Custom Farming: An Alternative to Leasing – A3-15 (4 pages)
Please add these files to your handbook and remove the out-of-date material.
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comparative advantage, which refers to the ability of a country to produce a product at a lower opportunity cost than that of trade partners. In agricultural trade, this, in essence, drives countries with higher production costs for agricultural products to be customers of those who are more cost-efficient. This is a particularly useful concept to understand why China has become a leading customer of U.S. agricultural exports because row crop agricultural production is not China's comparative advantage.

There are both natural and social constraints in China's agricultural productions, especially when compared to the United States. Although China and the United States cover roughly the same land area, the amount of arable land – land that could be farmed – is limited for China. In general, China has seven percent of the world's arable land but needs to feed almost one-fifth of the world's population, while the United States boasts more than 15 percent of the global arable land with only four percent of the global population. Many U.S. Corn Belt states enjoy ample precipitation for profitable rain-fed row crop production, by comparison, most major agricultural production areas in China rely heavily on irrigation. Furthermore, the soil and land quality are arguably significantly better in the United States than in China. The societal constraints further hinder the production efficiency of Chinese agriculture. China has at least 270 million farmers actively engaged in crop or livestock production compared to 3.2 million for the United States, which results in less than two acres, on average, for a typical Chinese farming household (Zhang and Li 2018). In addition, China also bans planting of genetically modified corn and soybean varieties. As a result, the most productive provinces in China could only produce 50-60 percent of the corn or soybean yields when compared to the statewide average yields recently seen in Iowa. There is the potential to increase yields substantially – some Heilongjiang farmers raise 200- bushel corn.

China also has long-standing food security policies that shape the composition of their agricultural import demand. In particular, China regards rice and wheat as critical food crops that are directly used for food consumption, and maintains a 100 percent self-sufficiency ratio, and thus are neither major exporters nor importers of rice or wheat. Similarly, China could

produce 97 percent of its pork domestically with half of the pigs in the world in China. In contrast, China plays a much more significant role in the international feed grain markets. For example, China could only satisfy 15 percent of its need for soybean consumption via domestic production, and could play a bigger role in the ethanol and corn markets as China pushes forward its 2020 E10 ethanol mandate (Li et al. 2017), and incentivize more corn for silage production domestically.

Brookings Institute estimated that 88 percent of the next billion middle class will be in Asia with more than 330 million additional citizens in China. With the Chinese economy projected to continue its growth, likely at a lower rate around 5-6.5 percent over the next decade, China will continue to be one of the most important trading partners with U.S. agriculture, once the trade disputes are resolved.

2. China definitely suffers greater economic loss, however, the trade retaliation has disproportionately large impacts on agricultural states like Iowa

Undoubtedly China will incur greater economic loss from the trade war: our previous analysis using a general equilibrium trade model reveals that if the United States loses about a quarter percent off its economy due to the tariffs effective as of January 2019, the Chinese economy will suffer a 1.3 percent loss (Li, Balistreri, and Zhang 2018). Many other countries and regions, especially major exporters of manufactured goods to the United States such as Mexico, gain from the trade disputes between the United States and China. In 2018, the China Shanghai Composite Stock Market Index has decreased from near 3,600 (POINTS?) in January 2018 to less than 2,500 in January 2019. In particular, the Chinese electronic equipment and other machinery sectors, which rely heavily on exports, suffered most significantly. These economic losses translated into incentives and willingness for China to engage in trade negotiations for possible trade deals.

However, despite modest economic impacts for the U.S. economy as a whole, U.S. agricultural industry and agricultural states such as Iowa suffer disproportionately large impacts from the trade disruptions. Our previous analysis of China's trade

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retaliation strategies suggests that China tends to target agricultural products for economic and political damages, especially when the products are easily substituted by supplies from U.S. competitors or alternative products (Li, Zhang, and Hart 2018). A recent Center for Agricultural and Rural Development (CARD) analysis on the impacts of the trade disruptions on the Iowa economy shows that the overall losses in Iowa's Gross State Product are calculated to be \$1 to \$2 billion off the total Gross State Product of \$190 billion (Balistreri et al. 2018). This translates into a half- to full-percent loss off the Iowa economy. In particular, the average estimated loss to Iowa's soybean, corn, hog, and ethanol industries are \$545 million, \$333 million, \$776 million, and \$105 million respectively.

3. Trade disruptions give China strategic incentives to further diversify away from the United States, potentially benefitting our competitors

One long-term impact of the trade disruption is that it gives China even more strategic incentives to diversify away from the United States. In 2016, China bought over 60 percent of U.S. soybean exports, but even then China was buying even more soybeans from Brazil. Due to strong and growing Chinese demand, Brazilian soybean acreage has risen from 25 million hectares in 2012 to 35 million hectares for the 2018/19 season. In 2006, the United States exported more meat to China than all our competitors combined. However, over the past decade the United States has lost market share as China increased meat imports from the world. This is in part related to China's Belt and Road Initiative, also known as China's 21st Century Silk Road, which better connects the European hog suppliers with China via new railroads. But this also represents China's active diversification in their meat exports even before the trade war: in 2016, Europe supplied more pork to China than the United States, while Australia, Brazil, and Uruguay dominated the beef imports by China. Intuitively, the trade disruptions could accelerate China's diversification away from the United States, potentially benefitting our competitors.

Current trade disruptions also tie our hands in realizing the future growth opportunities resulting from Chinese domestic agricultural markets. I want

to highlight three examples: First, China now has an E10 ethanol mandate that requires all gasoline to be blended with 10 percent ethanol by 2020, but currently, Chinese domestic ethanol production is not sufficient and thus needs to import either corn or ethanol. However, currently, U.S. ethanol has a prohibitive 70 percent tariff rate. The other two examples are related to a potential increase in Chinese pork import demand due to the ongoing African Swine Fever as well as the growing appetite for beef consumption especially for urban Chinese residents. Importantly, Chinese demand is so large that changes in its domestic policies or markets would have significant implications for international commodity markets.

4. Arguably both China and U.S. have strategic misjudgments early on about the trade war, exposing lack of mutual understandings and eroding mutual trust.

Although trade issues are one of the major topics during President Trump's 2016 presidential campaign, I think the rapid escalations of the trade war to its current unprecedented scale arguably exposed the strategic misjudgments by both sides regarding the intentions and resolve of the other side. For China, many people including several prominent policy advisors relied on the historical departure of U.S. campaign rhetoric and actual policies and thought the trade war would be unlikely or at least limited in scale. For the U.S., arguably the policymakers underestimated the resolve and speed of Chinese response, the challenging nature of resolving issues such as intellectual property protection and market access, and the complexity of simultaneously engaging in trade disputes with Mexico, EU, Japan, and other countries. Trade disruptions are often easy to start but often have long-term implications: the U.S.-China 2010 chicken vs. tire trade disputes essentially resulted in a loss of a \$1 billion U.S. poultry export market to China now supplied by our competitors, even after a decade this market has not returned to previous levels (Li Zhang and Hart 2018).

One critical issue exposed from this trade war, unfortunately, is the lack of mutual understanding and effective communications between the United States and China, and the quickly eroding mutual trust or the growing mistrust. For example, many

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Iowans know former Governor Branstad is currently the U.S. Ambassador to China, but many have never heard of China's emerging e-commerce giants, such as Alibaba, or do not know that Chinese hog production actually overlaps with populous provinces but not major corn production areas. In contrast, the typical Chinese citizen would not know U.S. soybeans are actually imported mainly as feed grains and thus could not be substituted just by switching to a cooking oil other than soybean oil. More importantly, so far all rounds of negotiations almost never resulted in joint statements by the two sides, but rather separate statements often with inconsistent messages and full of political jargon. A particularly hindering moment was when China agreed to buy seven billion dollars' worth of agricultural and energy products in June 2018 and thought the trade war would end, and discovered a week later it was back on. That in part explains why "ongoing verification and effective enforcement" are demanded to be a critical part of any trade deal.

5. China is a country of rapid change: your accurate knowledge about China five years ago may not apply today

China and U.S.-China trade issues and negotiations have been dominating the news; however, I encourage you to take this opportunity to learn more about contemporary China. China is a country of rapid change, and this means that even for frequent visitors to China your knowledge that was accurate even five years ago may not apply to today. For the general economy, China quickly becomes a country that leads the world in the construction of high-speed rail over the past decade. China now has more miles of high-speed rails than all other countries combined, with over 60 percent of these miles constructed in the past five years. In addition, Chinese students often make the largest group of foreign students in American and European universities, with over 40 percent of international students currently in Iowa coming from China (Zhou 2018). But a major shift is underway: in 2001 when China joined WTO, only one in ten Chinese students returned to China after studying abroad. In 2017, it was eight in ten of the 600,000 Chinese students who studied abroad returning post-graduation.

The agricultural sector in China has also witnessed significant changes over the last decade: In 2007,

there was no crop or livestock insurance, but now China is the second largest agricultural insurance market in the world. Twenty years ago there was no medical insurance coverage for Chinese rural residents, and now over 96 percent of them are enrolled in the New Rural Cooperative Medical Insurance which covers 75 percent of the in-patient medical expenses. There are three important new trends in the Chinese agricultural industry: In 2017, China started a new national mandate for all gasoline to be blended with E10 ethanol by 2020; per-capita beef consumption in China rose almost by 20 percent over the last five years, and the Belt and Road Initiative started in 2013 has significantly reduced the transportation time between Europe and China.

6. Both the Chinese economy and U.S.-China relations are at critical inflection points.

The unprecedented trade war of 2018 is indicative and informative that both the Chinese economy and the U.S.-China economic relations are at critical inflection points. After four decades of phenomenal economic growths and deepening bilateral ties with the United States, the Chinese economy recently experienced significant challenges and many speculated that the Chinese economy is slowing to an annual speed of 5-6 percent over the next decade. Arguably, that is still pretty fast, however, the Chinese economy faces structural reforms that are more challenging than ever before. How China Became Capitalist, an insightful book by Nobel Laureate Ronald Coase, forcefully articulated that the Chinese economic growth benefited with gradual market reforms with regional experimentation and local trials (Coase and Wang 2012). However, currently many Chinese people feel that federal and local government employees, state-owned enterprises, upper social class have significant unfair economic advantages, and the public trust of the government's pledge to "let the market to play a decisive role" is quickly eroding. One example of the governmental dominance is the lack of independent and research-based analysis on the actual impacts of the trade disruptions on various Chinese sectors and provinces, or the ban on publicizing these studies that might contradict Chinese government's positions.

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More importantly, the trade war is reflective of the status of potentially deteriorating U.S.-China relations. A Pew Research Center survey in August 2018 shows that American attitudes toward China have become somewhat less positive over the past year: Overall, 38 percent of Americans have a favorable opinion of China, down slightly from 44 percent in 2017 (Wike and Devlin 2018). At the same time, the same survey also shows that globally 70 percent of people think China plays a bigger role in the world despite a lack of enthusiasm for Chinese world leadership. One of the most striking surprises for the Chinese policymakers is that U.S. business leaders, who are often advocates for expanding economic ties with China, joined the policymakers arguing for a tougher stance when dealing with China. This reflects the disappointment in recent stagnation in China’s critical market reforms, but also reflects the general attitude shift in the U.S. to treat China as a strategic competitor. The growing confrontation also adds fuel to the discussion of the prospect of greater U.S.-China confrontation, and in particular, whether China and the U.S. are destined for the so-called Thucydides Trap, which is the idea that when one great power is rising it will inevitably threaten to displace the established power, consistently resulting in war (Allison 2017). While this is unlikely, concerns are growing in both countries regarding a new cold war between the United States and China.

A greater danger to me is the immediate and intermediate impacts of rising nationalism. In China, the hope to be more self-reliant on “core technology” could potentially disproportionately benefit Chinese state-owned enterprises, and hinder or delay long-overdue structural reform. In the U.S., there is growing risks of policies that restrict its ability to attract, train and retain talents from across the globe.

7. Chinese consumers and producers increasingly think and act like their U.S. counterparts, at least economically.

Finally, I want to encourage Iowans and U.S. citizens to pay less attention to the apparent cultural and societal differences between China and the United States but recognize that Chinese producers and consumers increasingly think and act like yourself or your neighbors. Although Chinese agricultural producers do not own land privately, the 30-year

contract rights essentially give them free reign regarding their crop choice, land rental choice, and marketing strategies. Increasingly, Chinese governmental structures look less and less like the Soviet Union system but rather similar to the governmental structures of the United States. As mentioned above, Chinese producers now have crop insurance, ethanol mandate, planted acre subsidies, and also face agri-environmental regulations. Chinese consumers fundamentally prioritize food quality, school quality, air and water quality, and quality of life for themselves and their kids.

Conclusion

China is and will continue to be one of the most important trading partners with U.S. agriculture, and the trade disruptions suggest that we need to understand China economically, culturally and politically. In this article, I offer seven personal observations that hopefully provided a context for you to better understand the U.S.-China trade war, as well as the Chinese agriculture and economy.

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Updates, continued from page 1

Internet Updates

The following Decision Tool has been updated on www.extension.iastate.edu/agdm.

2014-2018 Payment Data by County for ARC-CO and PLC – A1-33 (Decision Tool)

Crop Insurance Comparison – A1-48 (Decision Tool)

Building Your Farm Resume – C2-13 (1 page)

Evaluating Your Estate Plan: Business Entities – C4-52 (8 pages)

Current Profitability

The following tools have been updated on www.extension.iastate.edu/agdm/info/outlook.html.

Corn Profitability – A1-85

Soybean Profitability – A1-86

Iowa Cash Corn and Soybean Prices – A2-11

Season Average Price Calculator – A2-15

Ethanol Profitability – D1-10

Biodiesel Profitability – D1-15

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