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Brief Analysis:

Impact of Coronavirus on Chinese Agriculture

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Introduction and summary and key messages

In this analysis of the impacts of the coronavirus (COVID-19) on Chinese agriculture, latest news reports and short studies were assessed to display the current status of April 15th, 2020. Due to the rapidly evolving situation and impromptu announcements of new regulations, this analysis can only be a snapshot of the current state. The outcome of the sections below is summarized in the following key messages:

Key Messages:

- COVID-19 had enormous impact on Chinese agriculture through supply chain disruptions
- China is self-reliant on grain productions during the outbreak
- China still depends on imports of soybean, pork, other meat and dairy products from US, Europe, Brazil, Canada and Australia
- COVID-19 also caused farm labor shortages in key provinces during spring plantation
- COVID-19 accelerated the digitalization of Chinese agriculture
- MARA has put forward a number of measures to mitigate the impact of COVID-19 on Chinese agriculture to ensure food security of China.

1. Food security and supply:

China's overall food prices increased by 21.4% over a year earlier in February as anti-virus efforts disrupted supplies, fresh vegetable prices are increased by 9.5%, pork prices increased by 9.3%. To counter the effect of COVID-19 on agriculture, on January 30th, MARA issued a notice to support winter and spring food production and beyond. MARA also issued guidelines to guarantee the supply and transport of foods and agricultural products during the coronavirus outbreak through policies, like "Vegetable basket" and "Green tunnel" access and "Transporting vegetable of the South to North". With abating cases of coronavirus in March in mainland China, many provinces lowered its public health emergency levels and many provinces slowly went back to agricultural activities. According to the survey carried out by the Chinese Agriculture Machinery Association 95% of the agriculture machinery companies would go back to work by March 1st. According to analysis of MARA, China is mostly self-reliant in grain production and reliant on imports of soybean, pork, beef and dairy products. COVID-19 supply disruptions could have bigger impact on those sectors, in addition, lasting impact of African Swine Flu and smaller outbreaks of bird flu in some provinces, could drive up meat and poultry prices and result in rise of consumer price indexes.

2. Food supply chain:

Numerous lockdowns and quarantine policies by various provinces caused transportation and supply disruptions which led to dramatic increases in several agricultural production areas, prevented poultry, fruit and vegetables from being delivered to urban markets causing spikes in prices. China's consumer prices rose by

5.4% year-on-year in January, the fastest in more than eight years; the prices of pork jumped by 116% and vegetables by 17.1%. Other meat products, including beef, lamb and poultry also witnessed 10.4% to 20.2% increases.

3. Impact on key subsectors in agriculture

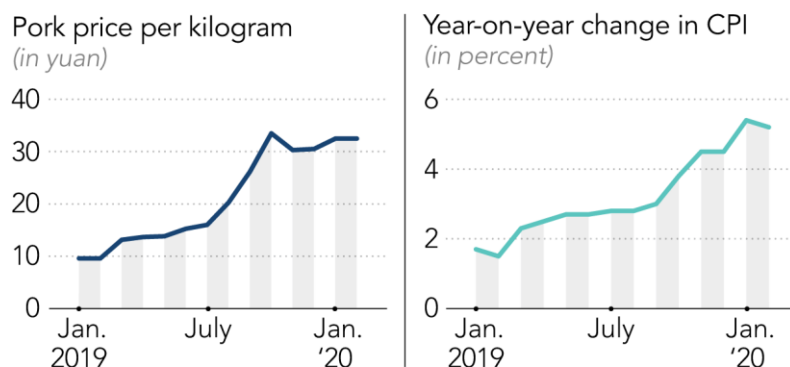
Grain: According to MARA and other agencies, China is self-sufficient in grain production. Food security in China is also reinforced by a food reserve system. In 2018, China's total grain reserves were estimated at 120 million tons of maize, 100 million tons of rice, 74 million tons of wheat and eight million tons of soybeans. The emergency grain reserves guarantee 10-15 days' supply of refined grains in major cities. To cope with the outbreak of COVID-19, the Chinese government has been reshuffling food reserves from different governmental levels and released a huge amount to the markets of major cities.

Soybean: China is one of the world's major demand destinations for soybean. After phase one trade deal with the U.S., soybean imports doubled in the first quarter of 2020. Brazil is also catering to China's demand.

Meat and Livestock: China is the world's largest destination for beef, sheep meat, pork, poultry and offal. With the coronavirus pandemic, the livestock market has witnessed a downward trend. Cattle and lean hog prices declined in the U.S. whereas in China, the entire livestock industry came to a standstill. Meat and seafood imports have also been severely impacted by the pandemic. Australia's beef and live rock lobster demand declined, as China is their largest importer and all orders from the country were canceled. Canadian lobster and shellfish's prices also saw a downward movement owing to demand declining in China, again the largest export destination. Indonesia has temporarily stopped shipments of fresh produce and live animals from China. With ports running out of space for refrigerated containers, inventories will start piling-up, reducing the orders for shipments and causing a decline in trade demand.

Pork: China is the world's largest consumers of pork. After shortages due to swine flu, COVID-19 has only made things worse. Roadblocks and closures impacted the domestic supply, while the launch of new pig-breeding facilities was delayed and, meanwhile, shipments were also halted. This saw Chinese pork prices skyrocket by around 11% in February compared to the previous month but have since started to come down as the government has been taking efforts to boost supply. As we can observe from the following chart: rising pork prices are pushing Chinese CPI higher during COVID-19.

Pork pumps up Chinese inflation



Jan.-Feb. data combined for pork prices, while CPI is monthly

Source: Pork prices from Muyuan Foods; CPI from China's National Bureau of Statistics

4. Agricultural trade

According to estimates, China will import 100 million tons of grain and feed products in 2020, mainly soybean and corn. According to latest data released from the Chinese Ministry of Commerce and the customs agency on April 14th, Chinese agricultural imports from United States in first quarter of 2020 reached 5.08 billion dollars, in which soybean imports doubled, pork imports six-folded and cotton imports increased by 42% compared to first quarter of 2019. This is due to the implementation of phase one of the US-China trade deal and increasing demand for agricultural products in China and impact of coronavirus on Chinese agriculture.

However, since the outbreak of COVID-19, some countries-imposed export restrictions on agricultural products, for example Malaysia on palm oil, Vietnam and Thailand on rice, Russia and Kazakhstan on grain exports. All of these countries are important agricultural trading partners of China and these restrictions could hamper steady supply of agricultural products into China. So far, developed economies in Europe and North America refrained from putting such export restrictions. China also has not enacted restrictions on import and export of agricultural products.

5. Cropping and spring plantation

According to MARA, grain spring plantation areas for this year would be 900 million Mu which is more than half of the total grain area. To ensure successful completion of spring plantation MARA issued various guidelines to facilitate the purchase of agriculture machinery and seed as well as the return to work of involved seed, fertilizer and agriculture machinery companies. As of March 5th, return to work rate of 362 seed companies reached 92% and fertilizer companies reached 69%. MARA also established a “Spring plantation agriculture machinery service station” to provide purchase and training services online. In this platform 2 million times of training have been carried out, MARA also enable farmers to apply for agriculture machinery subsidy through their APP. All in all, central government provided 140 million yuan of agriculture machinery subsidy which has been provided to 26,000 poor farmers to purchase 40,000 pieces of agriculture machinery.

6. Digitalization of Chinese agriculture

According to Bloomberg and CNBC, there has been a surge of demand for agriculture drones, due to various quarantine measures by local governments. MARA estimates more than 30,000 drones will be deployed for targeted plant protection this spring. The Chinese market for technology-driven smart agriculture products is expected to grow from approximately \$13.7 billion in 2015 to \$26.8 billion this year, according to Statista. The Chinese government had distributed 140 million Yuan (20 million USD) of subsidies for agriculture machine and tool purchases which would help farmers to upgrade their equipment to deal with the effect of coronavirus and improve productivity. Online retailers like Alibaba, JD.com and Pinduoduo are stepping up their efforts to reach out to farmers, so they can market their agricultural products and interact with potential customers. To supply timely information and policy updates, MARA has established a national coronavirus data platform for farmers and rural areas (<http://snsj.agri.cn/cockpit-index>).

7. Farm labor

Many companies have given workers extended leave in response to the outbreak, leaving many manufacturing and service enterprises shorthanded. Large numbers of migrant workers have been trapped in their hometowns when they returned for the Lunar New Year break because of quarantine measures, but the situation is slowly returning to normal. The resulting labor shortages will likely impact both domestic and global supply chains.

8. Solutions to mitigate the impacts

On 27 January 2020, the Ministry of Agriculture and Rural Affairs (MARA), the Ministry of Human Resources and Social Security and the National Health Commission issued a joint statement to farmers to prevent and control the spread of the virus in rural areas. Recognizing the importance of ensuring the supply of food in good quantity and quality during the crisis period, MARA also issued on 30 January 2020 a notice to support and guarantee winter and spring food production during the pandemic period and beyond.

On 10 February 2020, MARA published a follow-up notice to support spring planting on time. The notice specified incentives for farmers to initiate their farming activities using necessary disease prevention measures; recommendations for field management of crops (winter wheat, rapeseed, vegetables, fruits and tea); farm mechanization support for areas hit hard by the pandemic; and measures to eliminate labor shortages.

MARA has also taken measures to simplify the import approval and registration process for pesticides, fertilizers, livestock feeds and seeds. MARA established the afore-mentioned national coronavirus data platform for farmers to enable farmers to apply for agriculture machinery through APP and also offered online services and training to the farmer.

References

- <https://www.cnbc.com/2020/04/14/china-buys-more-us-farm-products-amid-plunge-in-trade.html>
- <https://www.thinkchina.sg/impact-covid-19-agriculture-sector-china>
- <https://www.cnbc.com/2020/03/30/coronavirus-food-crisis-looms-as-farms-idle-countries-hoard-supplies.html>
- <https://thehill.com/opinion/finance/482528-a-virus-is-crippling-chinas-economy-and-threatening-the-worlds>
- <https://www.chinadaily.com.cn/a/202002/24/WS5e53af6fa310128217279e6d.html>
- <https://www.usda.gov/media/press-releases/2020/02/25/usda-and-ustr-announce-progress-implementation-us-china-phase-one-0>
- http://www.moa.gov.cn/xw/zwdt/202002/t20200228_6337969.htm
- <https://news.cgtn.com/news/2020-02-25/Xi-Jinping-stresses-stable-agriculture-development-food-safety--OnfSgDHos0/index.html>
- <https://agronomag.com/coronavirus-outbreak-impacts-chinas-agriculture-livestock-breeding/>
- <https://www.cnbc.com/2020/03/10/chinese-agriculture-drone-makers-see-demand-rise-amid-coronavirus-outbreak.html>
- http://www.moa.gov.cn/govpublic/CYZCFGS/202002/t20200213_6337012.htm
- <https://abcnews.go.com/International/wireStory/china-food-prices-spike-anti-virus-effort-disrupts-69498150>
- <http://www.jlnongji.cn/1/38/2020-02-21/197670.html>
- http://www.moa.gov.cn/xw/qg/202003/t20200306_6338362.htm
- http://www.gov.cn/xinwen/2020-03/05/content_5487526.htm
- <https://www.shangyexinzhi.com/article/details/id-551202/>
- <https://theconversation.com/lessons-from-china-ensuring-no-one-goes-hungry-during-coronavirus-lockdowns-135781>