African swine fever

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Current status of African swine fever
Recovery from African swine fever (ASF) in China will have a significant impact on global agricultural markets. This is because China accounts for around 50% of both the global pig herd and global pork consumption. In 2020, 12% of global meat consumption was pork produced in China. This article provides an update on the report ABARES released in 2019 on the Impact of African Swine fever on global markets.

China's pig herd on the path to recovery
Chinese biosecurity authorities and the pork industry contained the spread of ASF in early 2020. The Chinese pig herd and pork production are now on a rapid path to recovery. Since May 2020, outbreaks in China have almost ceased. Small, isolated outbreaks in July and October 2020 and in January 2021 have had limited impacts on the industry.

Outbreaks still occurring globally
ASF remains a significant biosecurity risk. Outbreaks outside of China occurred in Hong Kong at the start of February 2021 and are ongoing in Vietnam and the Philippines. At the start of 2021 a new variant of the disease emerged that is more difficult to detect because the associated mortality rate is lower.

In the European Union, 13 member states reported outbreaks of ASF between 2015 and 2020. Measures were taken to eradicate the disease. On 26 February 2019 the Czech Republic was the first country to report that ASF had been eradicated in both domestic and wild pig populations. On 19 November 2019 Estonia reported the eradication of ASF in domestic pigs only. This was followed by reported eradication in both domestic and wild pigs in Belgium on 20 November 2020. Germany is the most recent member state to report an outbreak of ASF on 10 September 2020, jeopardising exports to China worth US$873 million in 2019. As of February 2021, ASF was present in 11 EU member states.

Industrialisation of the Chinese pig industry
Structural changes towards large-scale pig farming reduce transmission risk
ASF forced a rapid progression of a multi-decadal process of structural adjustment away from small family-run pig farms to large-scale corporate farms. Large corporate farms are more able to isolate production from potential sources of infection via biosecurity measures, such as sanitation, personal protective equipment and truck washing. Large corporate farms have also become more vertically integrated, reducing the risk of the disease spreading from one farm to another. Feed mills, transport pathways and saleyards all pose significant threats of virus transmission. Streamlining supply chains greatly reduces these risks.

Investment in large corporate farms has been attractive given the high pork prices that resulted from the fall in pork supply. Corporate
investment enabled rapid restocking, driving a nationwide recovery in pig numbers. The adoption of modern animal husbandry, better disease control processes, and the shift to a more vertically integrated industry, are expected to significantly increase the productivity of the Chinese pork industry. Higher domestic production of pork in the long term is expected to reduce China’s import demand for both pork and substitute sources of protein.

Production of substitutes in China increasing
In 2018 the world pig herd was roughly 2.1 billion head, of which China accounted for 55%. The first official report of ASF in China was in August 2018. By 2019 the world pig herd had contracted by 12% and China’s share of that had fallen to 48%. World pork production fell by 11 million tonnes in that year, causing consumers in China and around the world to substitute to other sources of protein. This rise in demand for meat led to higher Chinese production of poultry (by 18%) and beef and veal (by 4%) in 2019. Higher prices also provided an incentive for investment in industrial-scale pig farming.

Adjustment to large-scale pork production has enabled the Chinese pork industry to commence a rapid herd rebuild. In 2020 the Chinese pig herd grew by 11%, but pork production was down by 11% to a low of 38 million tonnes because pigs were being retained for breeding. According to the US Department of Agriculture, Chinese pork production is estimated to rebound to 43.5 million tonnes in 2021, 20% below pre-ASF levels. Pork production in China is expected to steadily increase over the medium term to 2025–26 to exceed pre-ASF levels.

Global protein prices to decline in response to falling Chinese import demand
In 2019 falling pork supplies and rising prices led Chinese consumers to substitute towards imported meats. The volume of China’s pork imports doubled, poultry rose by 77%, beef by 72% and sheep meat by 42%. ASF-driven reductions in the global supply of protein and the resulting increase in import demand from China pushed up protein prices in China and globally. The consumer price index for pork in China peaked in February 2020, up by 135% year-on-year. The consumer price index for beef was 21% higher and for mutton 11% higher. For meat more generally (including pork) the index was up by 88%.
By December 2020 the consumer price index for meat in China had fallen back to previous levels. This was the direct result of the recovery in China’s meat supply.

Chinese consumer price index for food and meat, August 2017 to January 2021

Chinese leading global feed demand
China is the world’s largest consumer and importer of corn and soybeans. As a result, feed demand in China underpins price movements in international feed grain and oilseed markets. Feed demand fell sharply when ASF caused the contraction in China’s pig herd. The Chinese pig industry’s efforts to contain ASF and rebuild pig herds have driven a recovery in feed demand towards pre-ASF levels. The expansion of China’s poultry sector since 2018 has also contributed to the recovery. A shift by Chinese consumers towards poultry meat means that the poultry industry in China is likely to retain a higher share of feed demand into the future.

Chinese demand for corn is expected to continue to exceed domestic supply given continued expected growth of the pork and other intensive animal industries, such as poultry and dairy. The imbalance between demand and supply growth has led to the drawdown of national stockpiles of feed grains and record levels of feed grain imports.

Protein meal crushed from soybeans is a key ingredient in pig feed rations. Structural changes in the pig industry towards large-scale farms have increased the use of high-protein feeds, replacing food waste in traditional small-scale farming. Chinese soybean meal use for stockfeed is expected to increase by 8% to 76 million tonnes in 2020–21, exceeding pre-ASF levels. In 2018–19 with the outbreak of ASF, feed use of soybean meal in China fell by 5% to 65 million tonnes. Chinese soybean imports are expected to surpass pre-ASF levels in 2020–21 to reach 100 million tonnes, and then continue to steadily increase over the medium term.
Chinese soybean imports, 2010–11 to 2020–21

Source: US Department of Agriculture