Swine fever in China: A virus ravaging pig populations in the world's biggest consumer of pork unveils an opportunity to invest in Danish farmland

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African swine fever, which is extending across Asia, is leading to the culling of millions of pigs in China, in one of the world's largest animal disease outbreak to date. The current outbreak, which is linked to smallholders, is affecting a major staple of China's diet and is likely to affect prices of other meats and animal feeds around the world.

Investors can find an investment opportunity in a distant country, which provides a hedge to these recurring outbreaks and an attractive long-term exposure to agricultural real assets in one of the most stable countries in the world.



What is the swine fever?

It is a highly infectious disease which is harmless to humans but fatal to pigs and wild boars. Swine fever is hard to track, and it is harder still to eradicate: It can spread through contact with infected live or dead pigs, and via contaminated pork products. As of today, there is no vaccine. It was first detected in Sub-Saharan Africa in the 1950s and it spread to Asia and Europe more recently.

What has been the impact in pork production so far?

In China, which until this outbreak reared around half the world's pigs, every province has been affected. More than 120 outbreaks of African swine fever have been reported in China, affecting every province, according to the country's Ministry of Agriculture and Rural Affairs.

Millions of pigs have been culled across China since last August to stop African swine fever from spreading further through the world's largest producer and consumer of pork.

As pork production in China may drop by 30% according to some estimates, market analysts suggest that the swine fever may hit the pork market for years to come. The disease has now spread to Vietnam, Hong Kong, Mongolia, Cambodia and North Korea.

The UN Food and Agriculture Organization says it believes the cases reported by governments are underestimates and worries it could spread still further to Myanmar, the Philippines and Laos, making this one of the worst animal disease outbreaks on record.

How is the outbreak affecting prices of inputs and meats around the world?

There are multiple, interconnecting impacts coming from the swine fever outbreak. This is especially relevant as China is the leading pig producer in the world as well as the largest importer of pork.

Initially, the outbreak resulted in lower pork prices, as farmers raced to sell herds before suffering losses. But as the outbreak spread nationwide, local pork price in China started rising as farmers were forced to cull hogs. China's National Bureau of Statistics reported that in May 2019, the consumer price index (CPI) went up by 2.7% from a year ago, with food prices rising by a massive 7.7% led by a jump in pork prices.

With expectations for lower production, Chinese pork imports from Europe, Canada and Brazil are going up. Imports of beef and poultry are also on the rise as people look for substitutes, increasing prices for all these meats.

On the other hand, Chinese imports of soybeans and other vegetable proteins used as feed for pigs is expected to drop as the country struggles with the swine fever.

How does Europe fit in this current outbreak?

The European Union is the second largest producer and consumer of pork in the world, after China, with around 21% of global production and around 19% of global consumption.

With 150 million pigs and a yearly production of about 22 million carcass weight, the European Union is also the world's largest exporter of pork products. Germany, Spain and Denmark lead the export ranking, with China the largest destination.

Why is Denmark and Danish farmland an attractive investment opportunity?

Denmark is somehow unknown for most investors looking for global exposure to agricultural real assets. But the country, among the few in the world with a AAA credit rating, enjoys a combination of natural, economic and institutional attributes that make the country a very attractive place to invest in farming and food production.

Indeed, Denmark is among the world's largest pork exporters and with one of the most efficient production systems. The Danish pig industry is among the world's leaders in areas such as breeding, quality, food safety, animal welfare and traceability.

At present, the country exports around 90% of its pork production. And in order to protect the pigs from infected animals from abroad, the country is building a 70km fence along its border with Germany to control the migration of wild boar.

For investors who are looking to gain exposure to some of the long-term food and agricultural investment themes related to sustainable farming, growing demand for animal protein and food safety, investing in Danish farmland can be an opportunity to get attractive cash yields and potential for capital appreciation. Moreover, and specially for Asian investors, it can also be an effective hedge against recurring animal diseases in Asia, such as the current swine fever outbreak.

Recently a number of investment vehicles have been launched to provide foreign investors with exposure to Danish farmland. Among them is FarmCompany (<u>http://www.farmcompany.dk</u>), a farmland investment company which has been operating for several years and currently manages a diversified portfolio of farms that include pork, dairy and crop production. Investors in FarmCompany have benefited from the scale and professional management of these agricultural assets, with a planned exit in the coming years through the sale of the farmland portfolio to institutional investors.



Are there any other investment hedges to animal diseases like swine fever?

With a longer-time mindset, investors can also further explore AgTech innovations that target animal health threats, like the swine fever. Currently, there is no treatment or vaccine for it, but new technologies are being explored for quick-test diagnostic tools which are fundamental to containment.

Another area that is attracting investors' interest is genomic mapping and gene-editing technology - making changes within the animal's own genome – to make pigs resistant to the swine fever or to stop the cycle of transmission of the disease. These technological developments will take time but hold the potential por preventing such diseases and can also help to reduce the use of antibiotics.

Investors increasingly recognize that the food and agriculture investment space offers multiple investment themes. Exposure to these themes usually requires different investment strategies and the combination of farmland investments with technology innovation might prove an attractive component of a well-diversified portfolio in light of the growing and multiple challenges we face in our industry.

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