

Concentration of U.S. Pork Exports

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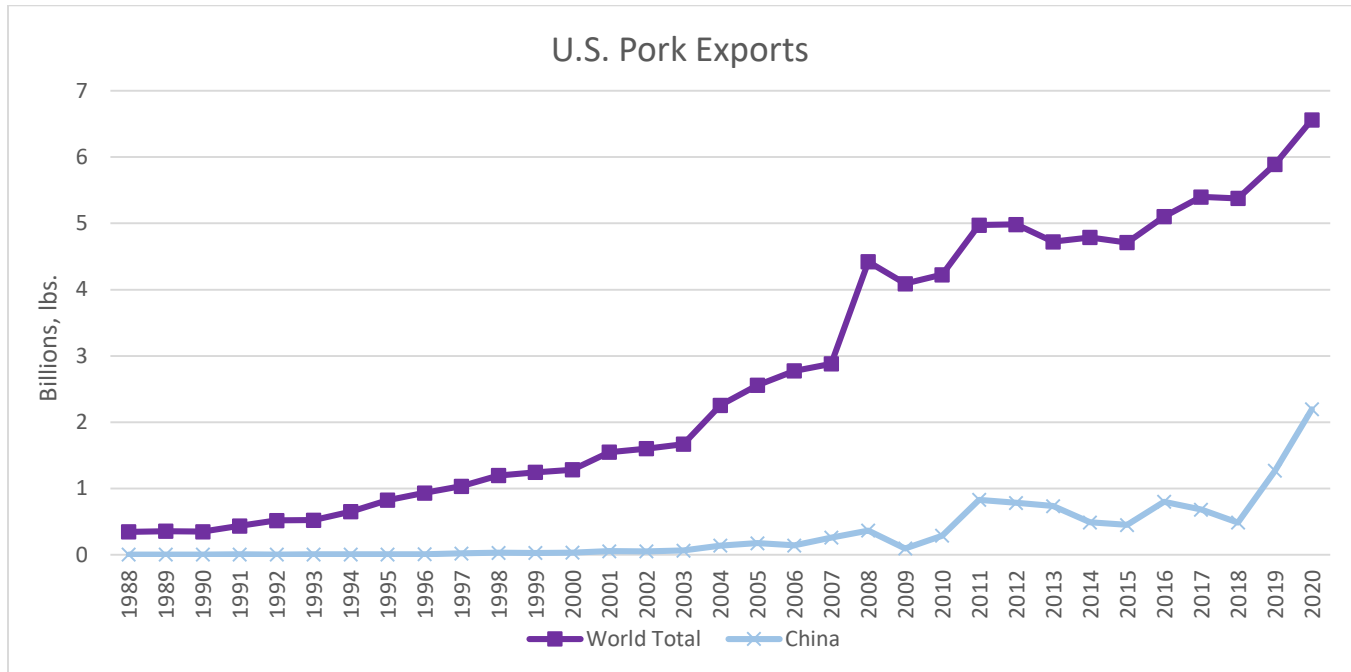
The U.S. continues to capitalize on increases in international demand for pork caused by the detrimental impacts African Swine Fever (ASF) has had on hog production in some Asian countries. China, namely, has been exceptionally hard hit by the disease; 2019 and 2020 were both record setting years for U.S. pork flowing into the country, and 2021 is on pace to be another outstanding year.

The purpose of this fact sheet is to look at how concentration within pork export markets has changed recently and update information included in the [Concentration of U.S. Red Meat Exports](#) that was published in March 2018, just before the first ASF cases were announced in China. Data used in the graphs comes from USDA Foreign Agricultural Service (FAS) and is based on export volumes, rather than export values.

U.S. Pork Export Overview

First, consider that U.S. pork exports have been steadily increasing over the past few decades. In 2020, they totaled 6.56 billion pounds, which is more than 5 times the 1.28 billion pounds that they were in 2000. As evidenced in the following graph, China's growing share of U.S. pork exports over the past two years has been especially notable. In 2020, China imported 2.20 billion pounds of U.S. pork, which was a 33% share of total U.S. pork exports. This is a sizable increase from the 9% export share China held in 2018.

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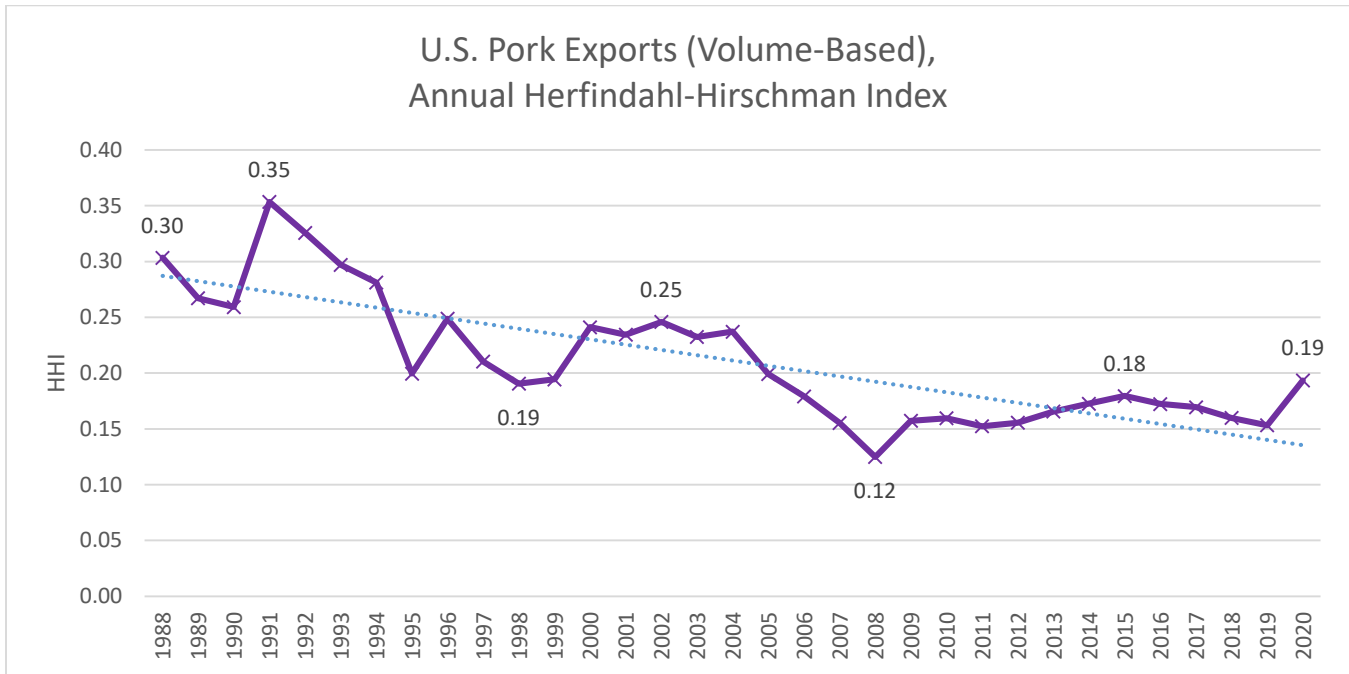


Source: USDA FAS Data

U.S. Pork Export Portfolio

Taken into historical context, it can be helpful to visualize increases in diversification in U.S. pork export markets that have occurred over the past few decades. The Herfindahl-Hirschman Index (HHI) is often used to quantify concentration within markets. In the context of U.S. pork trade, the HHI is calculated by determining the share of U.S. pork exports to each country, squaring those shares, and summing the squared numbers. The closer the HHI is to one, the more concentrated and dependent the U.S. is on one country for exporting U.S. pork. Conversely, the closer it is to zero, the more diversified the export portfolio is.

As shown in the following graph, there was an increase in the HHI in 2020 primarily due to China’s increased share of U.S. total pork exports. However, compared to the level of concentration in the late 1980s through early 2000s, U.S. pork exports are still largely more diversified today than in the past even with China’s increased role.



Source: USDA FAS Data, Luke calculations

China’s Demand for U.S. Pork

Furthermore, it is imperative to disaggregate exports of U.S. pork to China beyond the whole commodity level to better understand the role China plays in U.S. pork demand. Unlike many U.S. consumers, Chinese consumers demand a great deal of pork variety cuts. These include products such as hog guts, feet, hearts, tongues, etc. In 2020, the U.S. exported 1.03 billion pounds of pork variety cuts. Of that, 56% or 579 million pounds went to China, generating \$632 million in value. Therefore, 26% of the 2.20 billion pounds of U.S. pork exported to China in 2020 were in the form of variety cuts. China’s demand for variety products enhances the value of U.S. pork and allows processors to utilize and market nearly every portion of a hog.

In 2020, China was the key market for several U.S. pork variety cut exports. As summarized in the following table, China received nearly all U.S. pork headmeat exported last year and a dominating share of pork feet, guts, bladders, stomachs, and hearts.

Pork Variety Exports to China in 2020

Product	Volume exported (million lbs.)	Share of U.S. Exports of Product
Feet	275	84%
Headmeat	117	98%
Guts, bladders, and stomachs	88	60%
Tongue	13	30%
Heart	10	72%
Skin	3	13%
Other Variety Cuts	73	29%

Source: USDA FAS Data, Luke calculations

While the U.S. exports a large volume of pork to China in general, it is careless to assume that their demand for U.S. pork mimics that of consumers in the U.S. The assessment above reveals the commanding role pork variety cuts play in satisfying Chinese pork demand and the reliance the U.S. has on China to purchase cuts not demanded domestically to maximize the value of U.S. pork.

Summary

Exports of U.S. pork to China over the past two years have soared to levels not seen before, but U.S. pork export volumes have been trending higher for the past few decades. While China is purchasing a greater share of total U.S. pork exports than in the past, the U.S. pork export portfolio is still more diversified today than it was in much of the late 1980s, 1990s, and early 2000s. Additionally, China's demand for U.S. pork includes many variety cut products not demanded by U.S. consumers, which highlights the importance of exploring export markets beyond the commodity level to understand the intricacies of U.S. pork trade.

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