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Department of Agricultural and Consumer Economics, University of Illinois Urbana-Champaign

Weekly Farm Economics: Chinese and U.S. Pork Consumption and Production

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June 25, 2013

***farmdoc daily* (3):122**

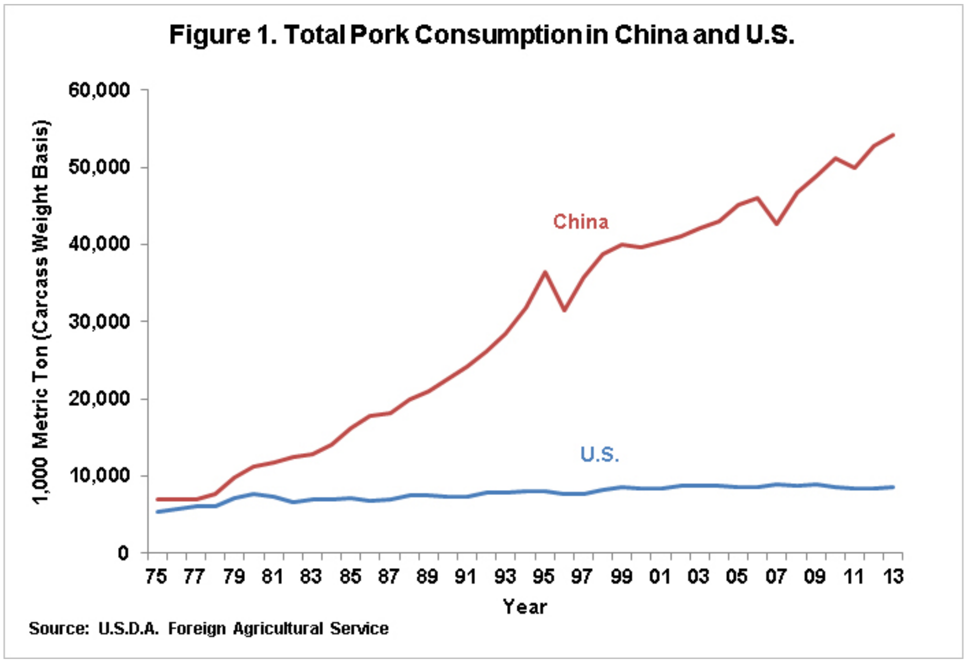
Recommended citation format: Schnitkey, G. "Chinese and U.S. Pork Consumption and Production." *farmdoc daily* (3):122, Department of Agricultural and Consumer Economics, University of Illinois at Urbana-Champaign, June 25, 2013.

Permalink: http://farmdocdaily.illinois.edu/2013/06/chinese-us-pork-consumption-production.html

Shuanghui International – a Chinese meat company – has expressed interest in purchasing Smithfield Foods – a global food company based in Virginia that is heavily involved in pork production. This interest suggests a comparison of pork consumption and production in China and the United States is useful. Overall, Chinese consumption currently is over six times that of the U.S., suggesting that efficiencies in Chinese pork production are important. The size and potential growth of the Chinese market represents potential for U.S. pork and grain sectors.

Chinese and U.S. Pork Consumption

In 1975, Chinese consumption of pork on a carcass weight basis was 7.0 million metric tons and U.S. consumption was 5.4 million tons. From this point, consumption in the two countries diverged (see Figure 1). Between 1975 and 2013, Chinese consumption grew an average of 5.7 percent per year compared to an average yearly rate of 1.3 percent in the U.S. Differences in growth rates cause Chinese consumption to be over 6 times larger than U.S. consumption in 2013: 54 million tons in China compared to 8.6 million tons in the U.S.



Between 1975 and 2013, both countries had roughly the same population growth. Chinese population increased by 49 percent while U.S. population increased by 45 percent. Hence, differences in population growth are not the primary reason why pork consumption has increased in China relative to the U.S.

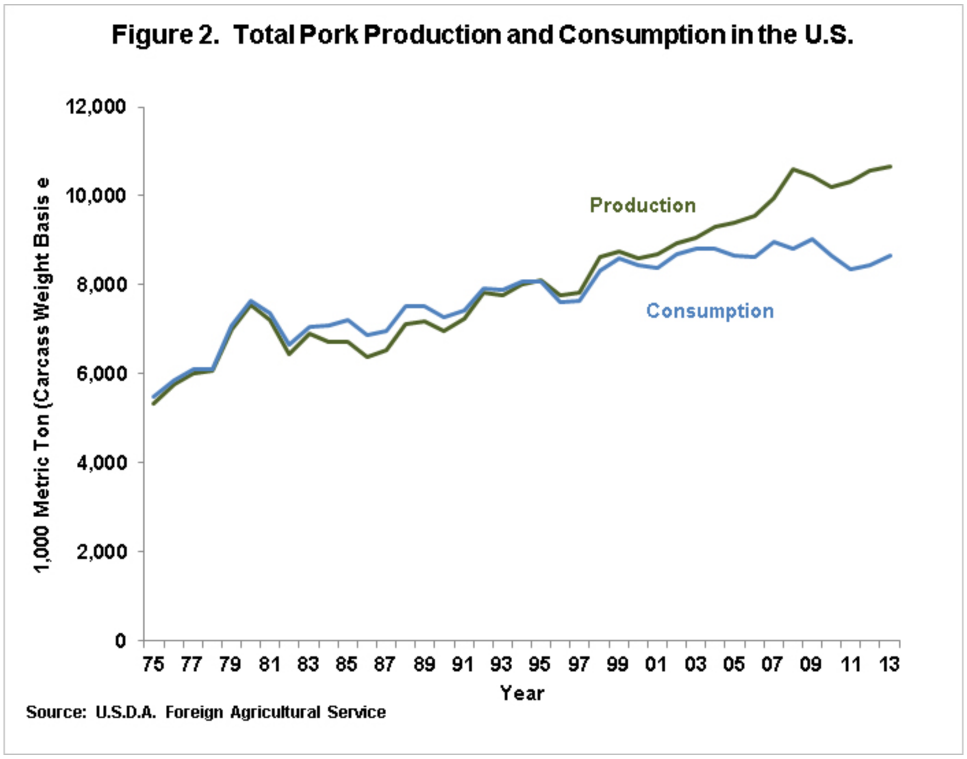
Differences in per capita consumption explain divergent pork production patterns. Between 1975 through 2013, per capita consumption of pork in China increased by 4.6 percent per year while U.S. consumption remained roughly stable.

Growth in per capita pork consumption largely is attributable to increases in Chinese income levels. For developing countries, rising income levels generally lead to increases in per capita meat consumption. There is hope that Chinese income levels will continue to increase, leading to continuing increases in Chinese pork consumption. If continued, pork consumption growth in China will have large impacts on pork demand due to the large Chinese population (1,400 million people in China compared to 318 million in the U.S.). Chinese pork consumption already accounts for 50% of worldwide consumption. Continuing Chinese growth could cause this share to increase.

Chinese and U.S Pork Production

Chinese pork production has increased roughly at the same rate as Chinese consumption. In recent years, however, there has been some modest growth in Chinese port imports. There may be questions of whether the Chinese pork industry can maintain Chinese pork production growth.

U.S. production has increased faster than U.S. consumption, resulting in the U.S. being a net exporter of pork production (see Figure 2). Production processes such as those used by Smithfield has led to growth and efficiencies in U.S. pork production.



Concluding Comments

Continuing income growth in China likely leads to more pork consumption in China, requiring more pork production. Increasing pork production likely requires increases in efficiencies in Chinese pork production, as well as Chinese reliance on agricultural output from outside China. A Chinese company's purchase of Smithfield may aid in technology transfer and access to pork production outside China.

Chinese growth continues to offer prospects for both the pork and grain sectors in the U.S. It may not be possible for China to meet all pork needs with Chinese production, potentially leading to more pork imports. Moreover, hogs eat grain. Therefore, any increase in pork production leads to the need for more grains. Obviously, the U.S. will face competition in meeting Chinese needs, most likely from South America and, perhaps, Africa.