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# China's Meat Consumption: Growth Potential

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## What Is the Issue?

China's emergence as a major meat producer, consumer, and importer may have potential for export opportunities for the United States and other producers. China has become the world's largest meat importer, as growth in its own production has diminished. Growth in China's meat production and consumption has slowed due to decelerating population and income growth, animal disease, scarcity of land for feed and forage, rising production costs, and health concerns. Has China's consumption of meat reached a ceiling, or is there room for more growth? This study investigates trends in China's meat supply and household purchases, discusses data inconsistences, analyzes population, income, and price data that influence consumption, and estimates statistical models to ascertain future growth in China's meat consumption.

## What Did the Study Find?

Chinese meat prices have risen faster than other commodity prices since the 1990s, but meat consumption is relatively insensitive to prices.

- ERS analysts looked at beef, mutton, pork, and poultry and found that the relationship between consumption and prices is inelastic (i.e., the demand changed proportionately less than the price).
- Poultry consumption is stimulated by rising pork prices, but substitutability between other types of meats is weak and inconsistent across data sets and estimation techniques.
- Several supply shocks (due to swine disease outbreaks) resulted in large swings in pork prices.
- Poultry consumption decreased during outbreaks of avian influenza when cases in humans occurred.
- Consumption of beef and mutton continued rising despite large price increases.

ERS is a primary source of economic research and analysis from the U.S. Department of Agriculture, providing timely information on economic and policy issues related to agriculture, food, the environment, and rural America.

Imports comprised 9.1 percent of China's meat supply in 2021, up from 1.0 percent in 2000. Meat imports accounted for a growing share of supply, as production growth diminished. In 2021, net meat imports comprised 18.6 percent of China's beef and mutton disappearance, 8.3 percent for pork, and 5.0 percent for poultry.

Data discrepancies still prevent precise analysis of meat consumption trends despite China's revisions of production data and survey methods. Statistics indicate that China's per capita meat supply is about twice as large as consumption reported by a Chinese national household survey. Meat supply statistics indicate an apparent plateau in China's meat consumption after 2014, but the household survey indicates more robust growth in meat consumption.

- Both sources indicate that poultry, beef, and mutton are gradually increasing their share of China's meat consumption spending.
- Pork's share declined but still comprises more than half of consumer meat expenditures.
- For each type of meat, analysis of household survey data indicated greater sensitivity to each meat's own price than did analysis of disappearance data.
- Household survey data indicate a small decline in meat consumption during 2019–20, when China's meat supply declined sharply due to a swine disease. However, the household survey and supply data both indicate a strong consumption recovery in 2021.

China's household income growth averaged 7.6 percent annually during 1985–2021, but income growth fell below this average during most years after 2014.

- Despite rising consumption and prices, meat expenditures comprise a shrinking share of Chinese household budgets.
- Pork consumption is relatively insensitive to income, but poultry, beef and mutton consumption is more responsive to income growth.

Based on past relationships between meat consumption, income, and prices, per capita meat consumption is projected to rise during 2022–31 by 23 kilograms using consumer purchase data and 21 kilograms using disappearance data. Pork consumption is projected to grow slower than the consumption of other meats.

## How Was the Study Conducted?

This report analyzes China's meat consumption using two official Chinese data sources: (1) disappearance calculated from meat production and net import data, and (2) household purchases of meat reported by a national household survey. The report discusses the divergence of the two data series, changes in consumption of three major categories of meat, growth in household income, and fluctuation in meat prices. The study estimates relationships between meat consumption, meat prices, and household income, using two methods: (1) first-differenced linear regressions of three categories of per capita meat consumption on inflation-adjusted per capita income and meat prices, and (2) a first-differenced Almost Ideal Demand System for expenditure on three meat categories. Using these estimates, the study calculates predicted meat consumption for 2022–31 based on assumed paths of income and prices.