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Agricultural Outlook Forum

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TRENDS IN CHINESE FOOD DEMAND AND TRADE PATTERNS

Fred Gale
Senior Economist
Economic Research Service, USDA

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U.S. Department of Agriculture

All eyes are on the China market. With one-fifth of the world's population and gross domestic product growing 9-10 percent annually, it is a big target and a moving target. China figures prominently in the plans of business leaders and policymakers.

Food has always been a central factor in the Chinese economy, its culture, and its politics, and remains important today. Food is the largest item in Chinese household budgets, accounting for 38 percent of the expenditures made by urban families and nearly half of rural household expenditures. The importance of food and the specter of famines in China's history elevate the importance of remaining self-sufficient in food in the minds of Chinese policymakers.

The changes in Chinese eating habits make China the world's most dynamic market for food, and perhaps the most important driver in world agricultural trade. The sheer size of the population means that changes in the China market could have repercussions in global agricultural markets.

As Chinese households gain greater spending power, they tend to cut back on consumption of traditional staple grains—mostly rice and wheat—and increase their consumption of nearly every other food item. Purchases of dairy products, poultry, fish and other aquatic products, soft drinks, wine, and processed foods are all growing rapidly. These consumption patterns are reflected in USDA estimates of grain consumption. Rice and wheat consumption plateaued in the last decade, but consumption of corn and soybeans has grown rapidly, reflecting an expanding livestock herd to feed Chinese consumers' increasing demand for livestock products.

Who is feeding this hungry dragon? With 20 percent of the world's population and less than 10 percent of the cropland, China has been surprisingly successful in feeding itself without relying heavily on imports. For decades, analysts have been forecasting robust growth in China's agricultural imports, but growth failed to materialize until the last three years. From the early 1990s until 2002, China's agricultural imports fluctuated around \$8-12 billion per year, with few signs of growth.

Finally, in 2003 and 2004, imports exploded, more than doubling to \$25 billion in 2004 and 2005. China is now the fourth-largest agricultural importer in the world (after the EU, United States, and Japan) and the fourth-largest market for U.S. agricultural exports (after Canada, Mexico, and Japan). U.S. ag exports to China reached \$5.5 billion in calendar year 2004. Has China's demand for food reached a "critical mass" where market opportunities are starting to multiply?

A closer look at the data shows that the opportunities have been created primarily in just a handful of markets. China's growing demand has been a major factor in the soybean and

vegetable oil markets, and its appetite for industrial raw materials has created demand for natural fibers, rubber, and hides. But it remains surprisingly self-sufficient in most food items.

There are several reasons why Chinese food demand may not have grown as fast as might be expected. First, Chinese consumers have many other spending priorities—housing, education, travel, leisure, health care, and automobiles—as they emerge from several decades of enforced austerity under central planning when consumer goods and services were not only unaffordable but also unavailable.

China's eye-popping GDP growth figures and futuristic city skylines may overstate the increase in the standard of living for the majority of the Chinese population. Incomes and food spending are rising at double-digit rates for the wealthiest tier of Chinese households, but growth has been well below GDP growth rates for the rural population and the lower tier of urban households.

Chinese consumers are spending a significant part of their extra food dollars on higher quality, not necessarily greater quantity. They are paying higher prices for brand name foods, processed products, meals in restaurants, and food certified to be free of dangerous chemical residues. This trend is magnified by the concentration of food spending growth in the upper tiers of the income distribution. Wealthy households tend to spend more on quality, while low-income households tend to spend extra food dollars on buying more milk, meat, fish, and fruit.

Another factor impeding ag imports in China is the low price of domestic food. Retail prices of nearly all foods in China are much lower than prices of imports. Imported apples, citrus fruit, and wine sell at prices far above those of domestic items and are niche market items purchased mainly as gifts or for special occasions.

Several other factors suggest that China will have to rely on imports to feed its population. With increasing demand for food quality, it is not clear that China can meet the challenge of supplying *safe* food. China has boosted both agricultural and industrial production side by side on a relatively small land base at the cost of dangerous contamination of foods with pesticides, antibiotics and industrial effluents. Further expansion of food production is likely to bump against the limits of China's natural resource base. Furthermore, Chinese consumers lack confidence in the safety of domestic food and tend to view imported food as more safe.

Spreading its new affluence more widely to the entire population is one of China's biggest challenges, but there are signs of success in this endeavor. Supermarket chains and food product distributors are moving from wealthy coastal cities into second-tier cities in China's interior. China's leadership is implementing a range of policies designed to raise rural incomes, building rural roads, increasing spending on rural schools and job training, and even subsidizing the expansion of supermarket chains into rural communities. As many as 200 million rural migrants spend most of their time working in cities and return home to their villages with extra cash and new consumption habits. All of these developments will strengthen economic linkages, diffuse new consumption and shopping habits to China's vast hinterland, and expand potential markets for imported foods.

China's accession to the WTO in late 2001 cut its agricultural tariffs to an average of 15 percent, one of the lowest in the world. But just as important is the more recent liberalization of the distribution and retail sectors. Greater openness and efficiency in distribution will make it easier for imports to get from the port to the Chinese consumer.

China's trade outlook for the 21st century appears favorable. Its increasing integration with the world economy, rising affluence, and resource constraints make China a promising market for agricultural imports. Rising domestic demand may curb China's exports of corn, fruits, and vegetables as well. Still, Western commercial interests have a long history of unrealized trade expectations in China and periods of openness have been interrupted by periods of isolation, so all forecasts should have a wide margin of error.

Food Consumption in China: Feeding the Dragon

Fred Gale

Economic Research Service

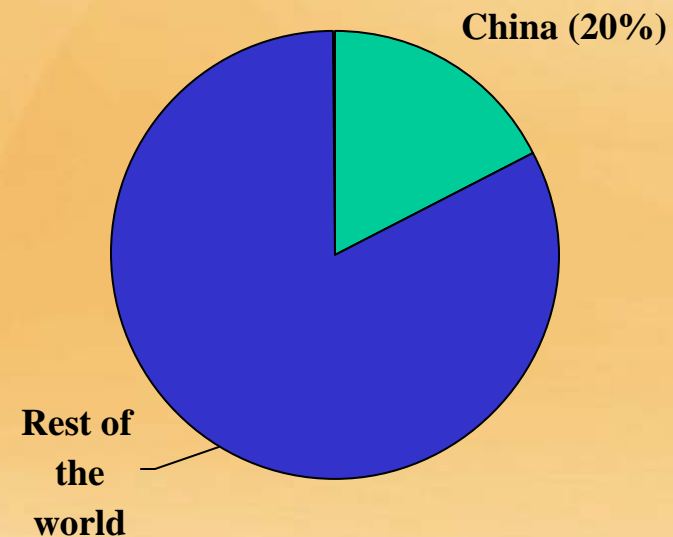
USDA



A big target

- Approximately one-fifth of world's consumers
- All eyes are on the China market

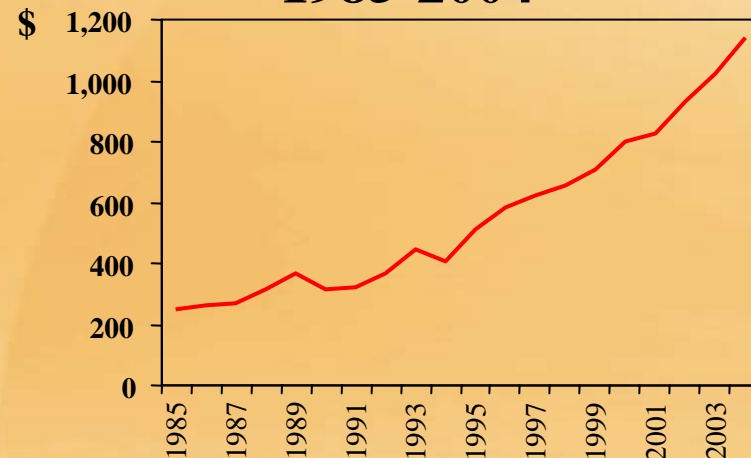
China's share of world population, 2005



A moving target

- Income doubles every decade for urban families
- GDP growth 10% per year

**China Urban Household
Per Capita Income,
1985-2004**



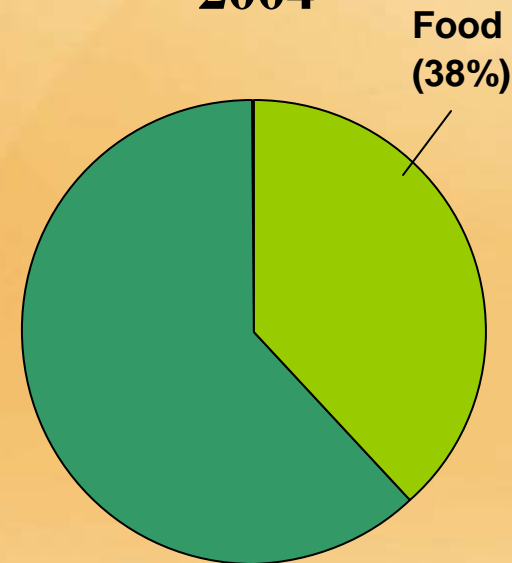
Note: Converted to U.S.\$ at official exchange rate.
Source: Calculations by ERS using China National Bureau of Statistics data.



Food is biggest item in Chinese budgets

- Urban households: food is 38% of expenditures
- Rural households: even higher
- Points to historical importance of food
- Emphasis on food self-sufficiency

Food share of urban household spending, 2004

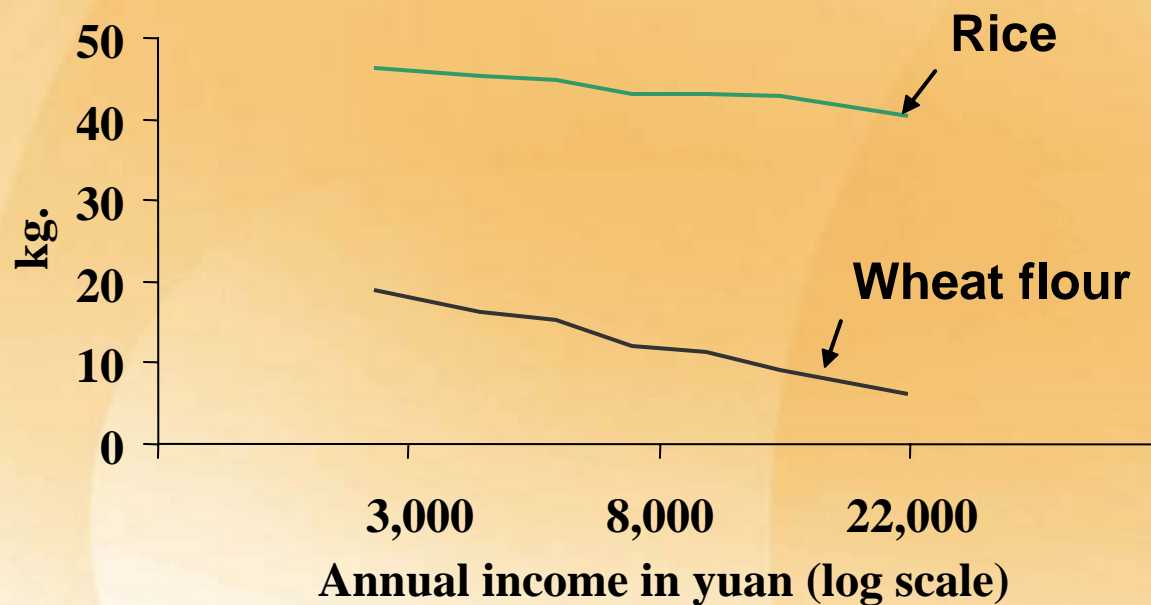


Source: Calculated by USDA/ERS from China National Bureau of Statistics data.



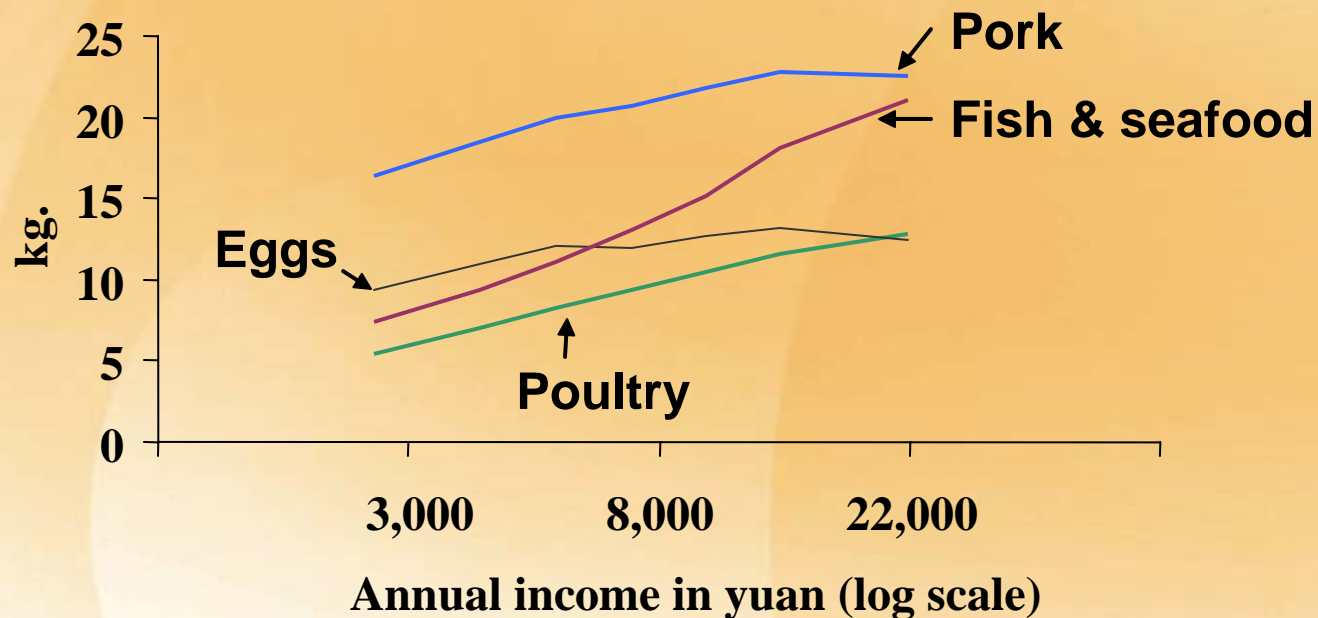
Consumption of food grains falls as income rises

Annual per capita purchases by income level, urban Chinese households, 2003



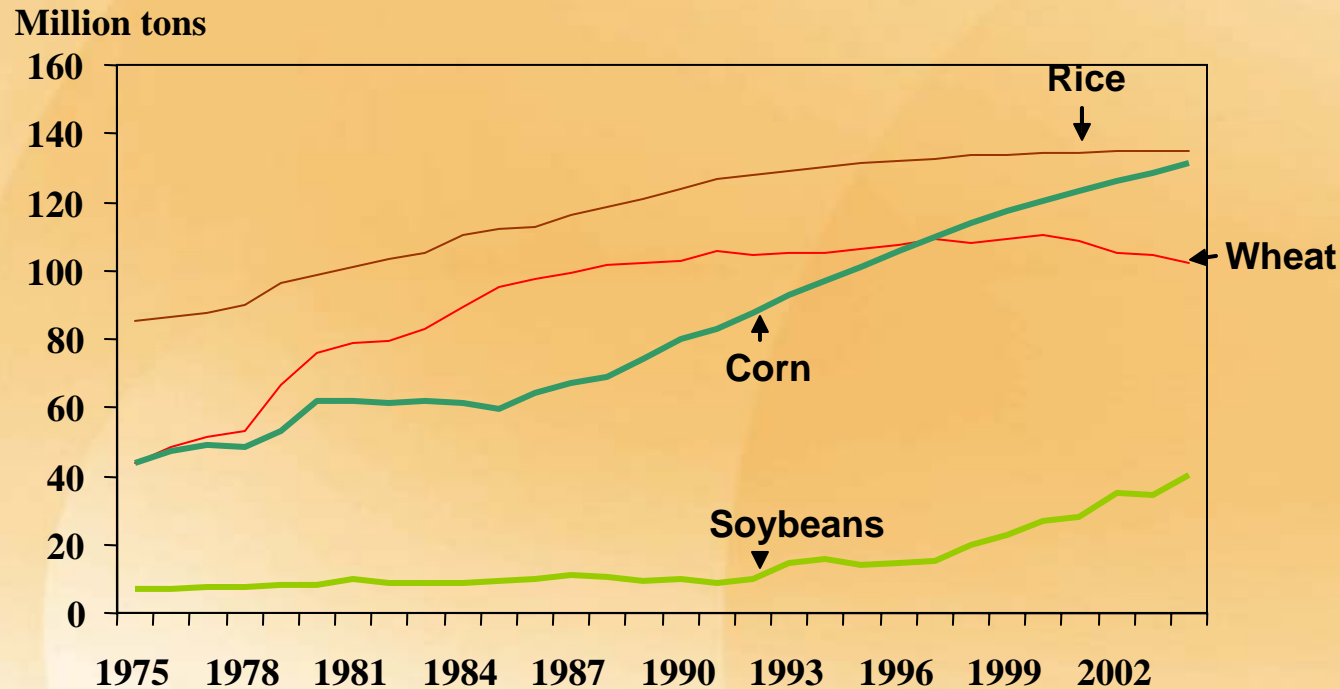
Consumption of fish and meats grows when income rises

Annual per capita purchases by income level, urban
Chinese households, 2003



Corn and soybean consumption rising

China estimated consumption of grains, 1975-2004

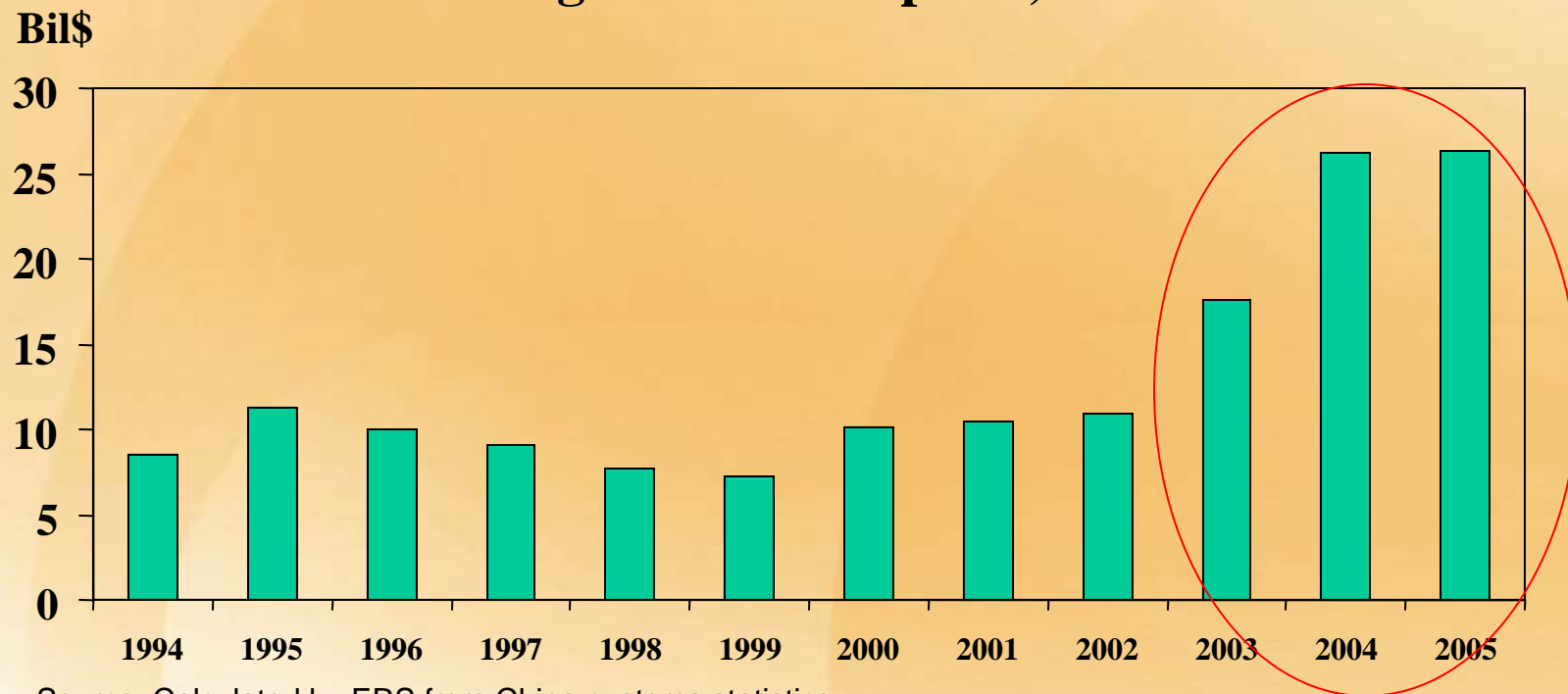


Source: USDA production, supply, and demand estimates.



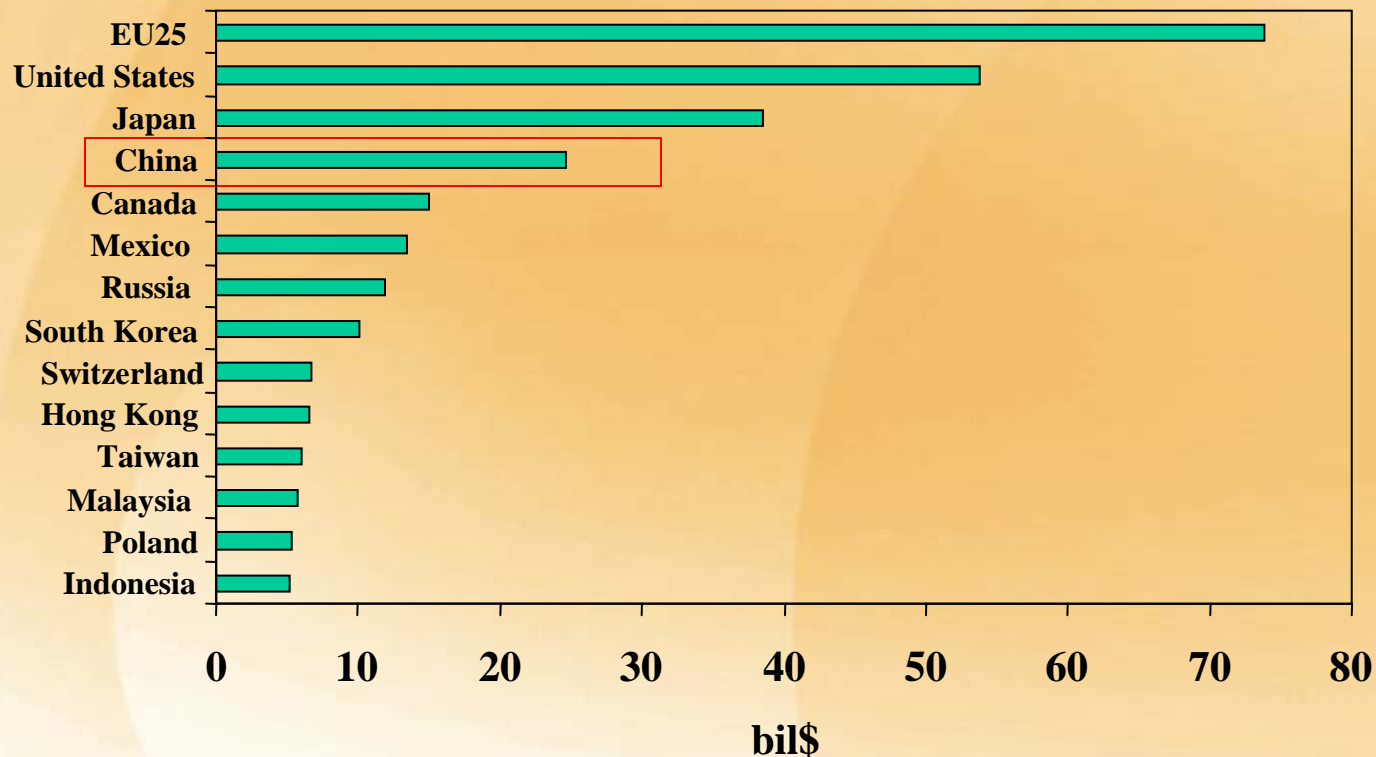
Who is feeding the dragon?

China's agricultural imports, 1994-05



China is now one of the top importers of agricultural products

Agricultural imports by country, 2004



Source: Calculations by ERS using data from Global Trade Atlas.



Top destination for U.S. ag exports

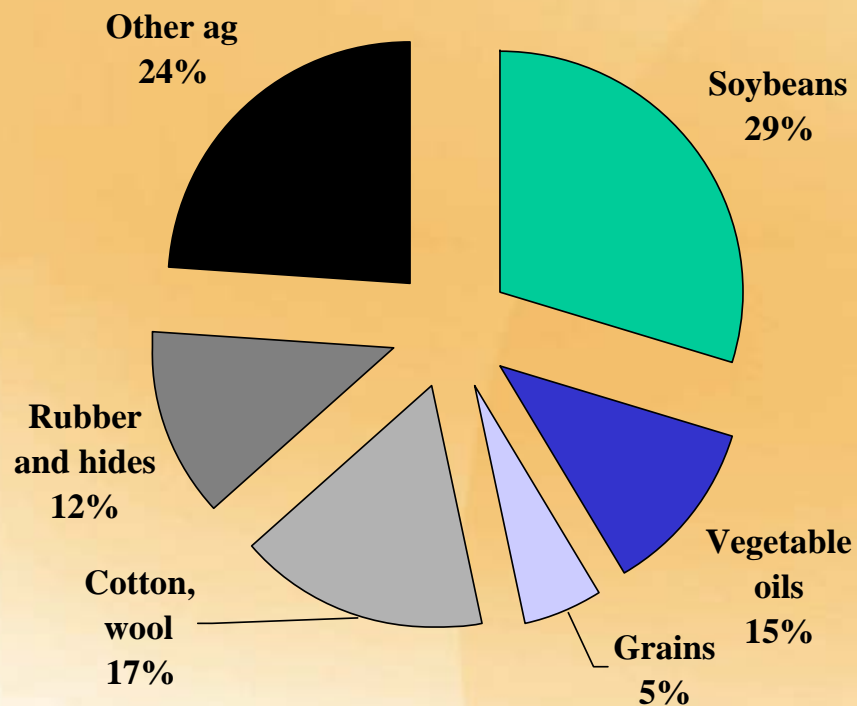
Destination	U.S. ag exports, 2004 (billion dollars)
Canada	9.7
Mexico	8.5
Japan	8.1
China	5.5

Source: USDA, Foreign Agricultural Service.



But China's ag imports concentrated in a few products

Composition of China ag imports, 2005

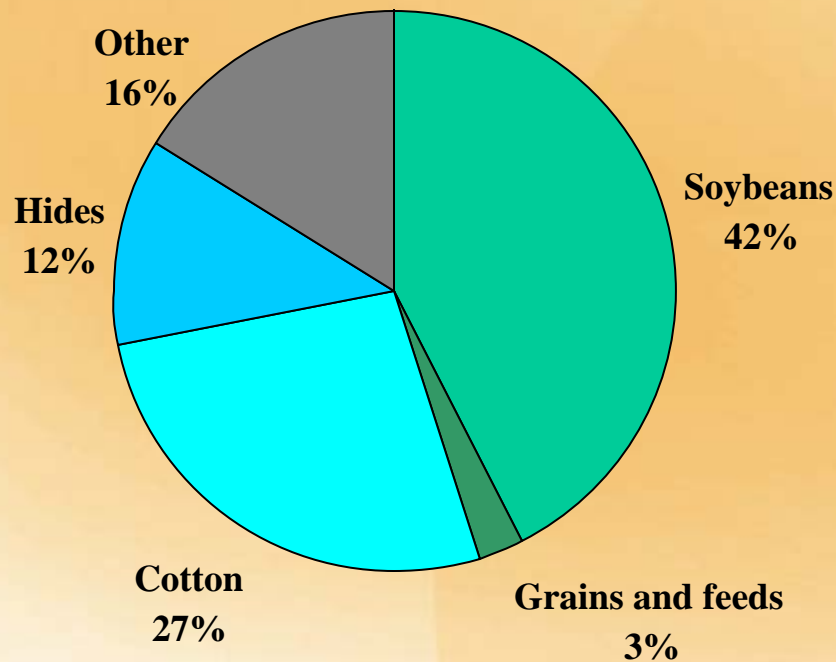


Source: ERS analysis of China customs data.



U.S. ag exports to China mainly soybeans and cotton

**Composition of U.S. ag exports to China,
January-November, 2005**



Note: Chart shows share of exports by dollar value.

Source: ERS calculations based on data from USDA, Foreign Agricultural Service.



The Dragon is mostly feeding itself

- Industrial growth: cotton, hides, rubber
- Oilseed complex: soybeans, veg. oil
- Mostly self-sufficient in other major foods



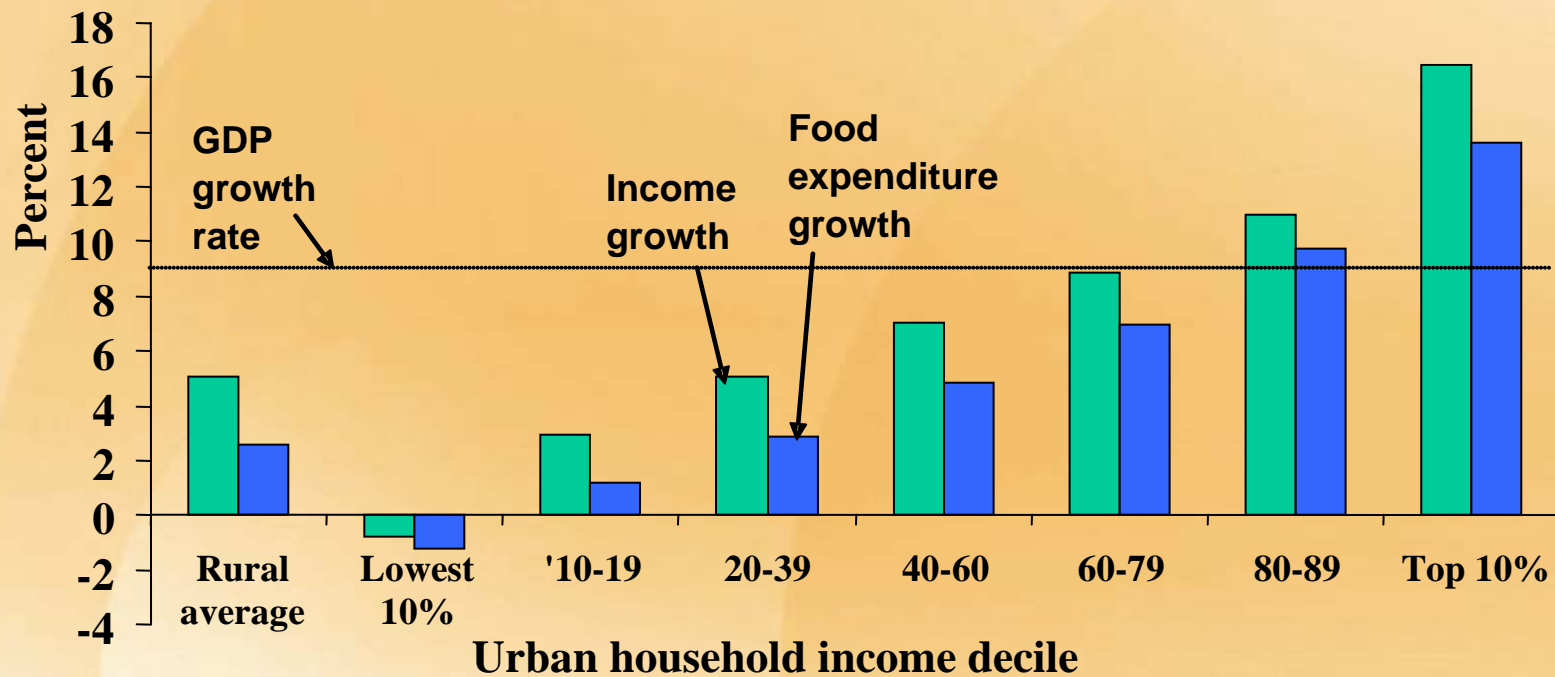
Many other spending priorities for Chinese consumers

- Housing
- Education
- Leisure and travel
- Health
- Automobiles



Income growth not spread evenly

Average annual growth in household income and food expenditure, 2000-03, by income class



Source: Calculated by ERS from China National Bureau of Statistics data.



Chinese consumers buying “quality”, not just quantity

- Meals in restaurants
- Processed food
- Brand names
- Exotic foods
- Safer food
- More “value added”



Domestic food prices are low

	China	U.S.
Average food spending per person per year, 2003	\$262	\$5,050
Average retail price, 2005	US\$ per pound	
Rice	.33	.58
Poultry	.58	1.07
Pork	.89	3.05
Tomatoes	.22	1.55
Apples	.12	.99

Sources: ERS estimates from China National Bureau of Statistics, China National Development and Reform Commission, U.S. Bureau of Labor Statistics.



Can China keep up with demand for *safe* food?

- Pesticide, antibiotic residues, industrial pollutants
- Fake or fraudulent products
- Microbial contamination?



Can China spread the wealth?

- Retailers are entering second-tier cities
- Raising rural incomes is a major policy goal
- Rural migrants spread consumer culture to their home villages
- Rural supermarket and road-building campaigns



China's policies?

- Tariffs have fallen and regulations are being loosened
 - Average agricultural tariff about 15%
- Appreciation of China's currency would make imported food cheaper



Outlook

- China will have to increase its reliance on agricultural imports
- Rising domestic demand may curb China's exports of corn, fruit, and vegetables
- Value-added (processing and services) performed in China
- Imports of raw materials



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overview
China's policies on agriculture and agricultural trade have changed dramatically over the last 20 years, reducing the role of government intervention and centralized planning and simultaneously increasing the role of market forces. China's membership in the World Trade Organization (WTO) will further increase reliance on market forces, and will enhance opportunities for U.S. agricultural exports. As the incomes of China's 1.3 billion people continue to rise, demand for more and higher quality food products will grow. Domestic production will be unable to meet all of this demand, and in the future China will be a key market for agricultural exports.

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[Commercialization of Food Consumption in Rural China](#). The large rural population in China has traditionally consumed large amounts of self-produced grains and vegetables. As incomes rise and markets develop, rural households are purchasing more of their food from markets.

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