

Commercialization of Rural Food Consumption

While the rate of food self-sufficiency remains high in rural China, it is falling rapidly as rural consumers gain more income and become integrated into the larger economy. Expanding off-farm employment, rural-urban migration, and the geographic spread of cities are giving rural people access to cash income and food markets. The share of rural income received in cash rose from 49 percent in 1980 to 82 percent in 2003, and rural retail sales per capita rose from 127 yuan (\$44) in 1980 to 1,400 yuan (\$170) in 2003.¹ Refrigerator ownership per 100 households rose from just 1.2 to 16 over the period, an indicator of growing affluence and a sign that rural households are diversifying their diets to include perishable food.

Cash Expenditures Rising

In 1980, China's rural households made just 30 percent of their food expenditures in cash. Strong growth in the rural economy during the 1980s led to an early period of commercialization of rural food expenditures (Huang and Rozelle; Wu). The cash share of food expenditures was about 45 percent during the early 1990s and grew to over 60 percent in 2003.

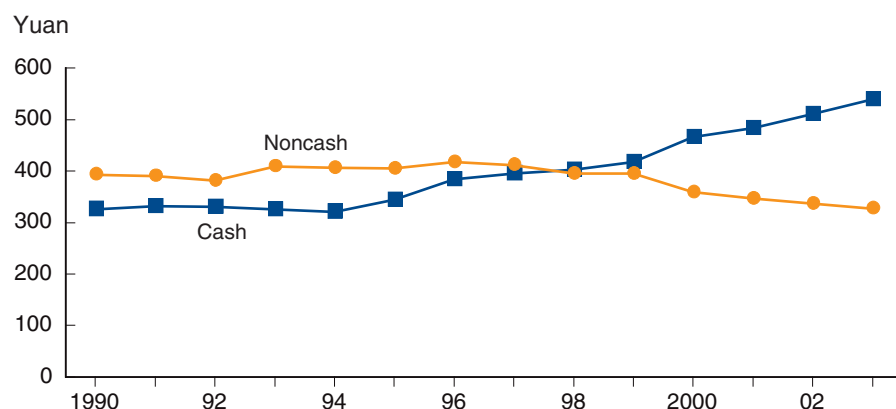
Since the mid-1990s, rural food consumption has been in the midst of a decade-long period of commercialization. After adjusting food expenditures for inflation using the retail food price index, ERS finds that cash food expenditures in rural China grew at an annual average rate of 7.4 percent from 1994 to 2003 (fig. 6). In contrast, inflation-adjusted noncash food expenditures declined during the same period. These data suggest that rural consumers are purchasing more food with cash while consuming less self-produced food.

More Purchased Food, Less Self-Produced Grain

Between 1995 and 2003, per capita purchases by China's rural households increased for all food items except staple grains (table 4). Increases in purchases ranged from 30 percent for pork to nearly 300 percent for milk. Decreases in grain purchases are probably attributed to the general decline in grain consumption in China. Households also reduced their consumption of self-produced grain, vegetables, edible oil, and fish products. Households increased their consumption of self-produced pork, beef, mutton, poultry, eggs, milk, fruit, and nuts, a trend that likely reflects the increased overall consumption of these items. Overall, consumption of each of these items grew 17 percent or more.

¹ Retail sales below county level divided by rural population, not adjusted for inflation. Values converted to dollars using official exchange rates for corresponding years.

Figure 6

Real food expenditures: cash and noncash, rural China, 1990-2003

Note: Noncash expenditures calculated by subtracting cash expenditures from total living expenditures. Deflated using retail food price index.

Source: Compiled by USDA's Economic Research Service from China National Bureau of Statistics (2004b).

Table 4

Change in per capita consumption, purchases, and self-production of food by rural China households, 1995-2003

Food item	Change in:		
	Consumption	Purchased	Self-produced
	Percent		
Grains, beans, potatoes	-14	-2	-17
Vegetables	2	71	-13
Edible oil	8	74	-40
Pork	30	30	31
Beef and mutton	77	38	134
Poultry and eggs	50	84	25
Milk	167	293	132
Fish and shellfish products	17	57	-25
Fruit and nuts	39	47	27

Note: Based on average quantities consumed and purchased in 1995 and 2003.

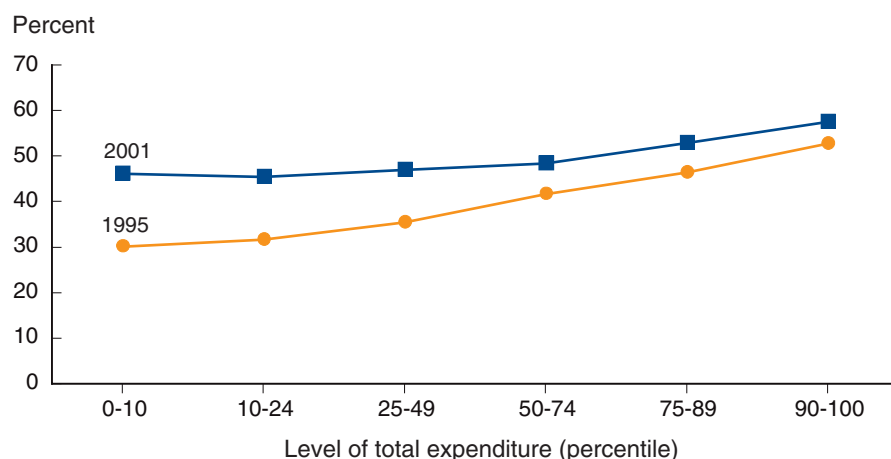
Source: Calculated by USDA's Economic Research Service from China National Bureau of Statistics, (2004b).

Low-Income Households Commercialized Fastest

Between 1995 and 2001, the cash share of food expenditures rose for rural households at all income levels, but the increase was especially fast for low-income rural households. The cash share of food expenditures made by the poorest households (those in the lowest 10 percent of households ranked by total per capita household expenditure) rose from 30 percent in 1995 to 46 percent in 2001, a gain of 16 percentage points (fig. 7). Over the same period, the average cash share for the wealthiest households rose just 4 percentage points, to 57 percent. The difference in cash share of food expenditures between households at different total expenditure levels clearly diminished by 2001. The rising cash share of food expenditures results from

Figure 7

Cash share of food expenditures by household expenditure level, 1995 and 2001



Note: Households from Jiangsu, Henan, and Heilongjiang Provinces were grouped into percentiles based on per capita living expenditures for each of the 2 years.

The 0-10 category includes households with the lowest expenditures and 90-100 includes households with the highest expenditures. Chart shows average cash share of food expenditures for each group.

Source: Estimated by USDA's Economic Research Service using unpublished data compiled by China National Bureau of Statistics, Rural Survey Organization (1995, 2001).

both an absolute decline in per capita noncash expenditures and an increase in cash expenditures. The decrease in noncash expenditures reflects the decline in self-produced grain and vegetable production observed in table 4 and a decline in grain prices between 1995 and 2001 (see box, "Volatile Prices Had Little Effect on Food Consumption"). Rising cash expenditures reflect increased purchases of most commodities.

Volatile Prices Had Little Effect on Food Consumption

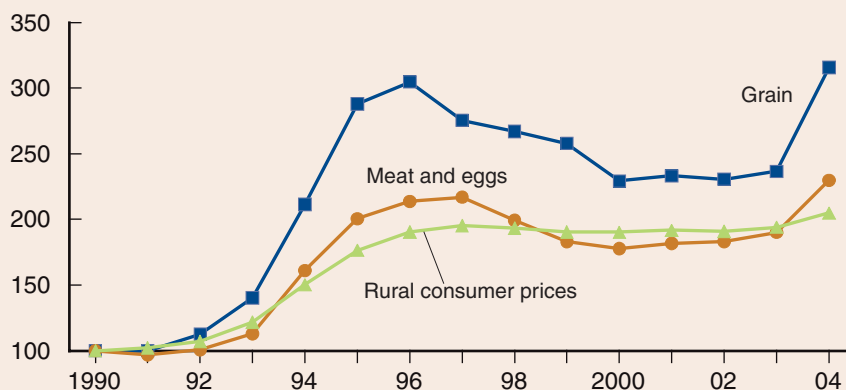
Chinese food prices went through a decade-long cycle of inflation and deflation during 1993-2003. The years 1993-96 were a period of general inflation in the Chinese economy, but food prices rose faster than other prices. Retail grain prices tripled and meat prices more than doubled during this period. From 1997 to 2000, food prices generally fell, with the decline sharpest for grains. Prices were generally stagnant from 2000 to 2003. Prices began rising sharply again in late 2003 and early 2004, with grain prices surging by 30-40 percent.

The effect of price changes on rural consumers is complex since they are consumers *and* producers of food (see Singh et al.; Tong et al.; and Yan). High prices for farm products reinforce the usual substitution effect of a price increase by encouraging farm households to sell food products to the market instead of consuming them onfarm. However, higher food prices also enrich farmers by increasing their potential income from farm sales. This income effect potentially increases farmers' demand for food, offsetting the substitution effect. Consequently, the effect of higher food prices on food consumption by rural households could be either positive or negative, depending on whether the substitution effect or income effect is larger.

The offsetting income and substitution effects suggest that rural household food consumption is less sensitive to price changes than is urban consumption. Recent trends in rural grain consumption in China have not been strongly influenced by prices. Per capita grain consumption fell steadily during 1993-2003, through periods of both rising and falling prices.

China price trends, 1990-2004

Index (1990=100)



Note: Indexes calculated based on indexes published by China National Bureau of Statistics. Indexes reporting year-on-year changes were converted to indices with a base year of 1990.

Source: Calculated by USDA's Economic Research Service from China National Bureau of Statistics, 2004a.