

Demand for Food Quantity and Quality in China

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Introduction

Studies of food demand in China consistently find that Chinese households tend to consume more meats, poultry, fish, dairy products, and fruit as their incomes rise, while their consumption of traditional staple grains remains stable or declines (Chern, 1997; Gould, 2002; Guo et al., 2000; Xin et al., 2005). The rising demand for meats, in particular, has been cited by many analysts as a factor that would sharply increase China's agricultural imports of meat and/or feed grains. While China has become a major importer of soybeans and vegetable oils, it has remained surprisingly self-sufficient in most other food items and has emerged as an exporter of vegetables, fruits, and aquacultural products (Gale, 2005; Huang and Gale, 2006).

How is it that China's surging income growth has not pushed its demand for food beyond its domestic production capacity? Rapid growth in domestic production of livestock, fruit, and aquaculture is one factor explaining China's surprisingly high degree of food self-sufficiency. However, another possibility is that food demand has grown more slowly than expected. A closer look at food consumption patterns may help analysts to assess China's recent trends in agricultural trade and prospects for future growth.

While there have been many studies of Chinese food demand, many are now dated—based on data from the 1980s and early 1990s—or fragmented, based on data from selected provinces and limited to urban or rural households.¹ Subsequent economic growth and significant changes in food marketing have affected food consumption in China. Chinese consumers are demanding greater quality, convenience, and safety in the food they consume (Gale, 2003; 2006). Chinese consumers are increasingly shopping at supermarkets and convenience stores that carry processed, prepared, packaged, and frozen foods, outlets that did not exist in China until the early 1990s (Gale and Reardon, 2004; Hu et al., 2004; Veeck and Burns, 2005). Publicity about food poisonings and dangerous chemical residues has given rise to nascent demands for “green” and organic foods (Marks and Bean, 2005; Calvin, et al.).

As increasingly affluent consumers increase their spending on food, they may buy not only more but better food. While most Chinese consumers are believed to be very price sensitive in food-buying decisions, an increasing number are willing to pay premium prices for food. Expenditures on restaurant meals, processed foods, products certified as free of harmful chemicals, foods with purported health benefits, or foods with other desirable attributes are increasing. A few recent studies have found that Chinese consumers are willing to pay modest premiums for food with safety-related certifications

¹Fuller and Dong (2004) found evidence of consumer taste changes in China in the late 1980s and mid-1990s, time periods when major policy changes occurred, including the elimination of food rationing in 1993. (Xin et al. (2005))

(Wang 2003, 2006; Yang, 2005) and Gould and Dong (2004) incorporated the effects of quality in a food demand system for urban China.

This study uses recent Chinese consumption and expenditure statistics for both urban and rural households to examine how food purchases and expenditures vary with income. It assesses the demand for food quantity and quality (Prais and Houthakker, 1971; Hicks and Johnson, 1968; Chung et al., 2005). We find that high-income households have very inelastic demand for quantity of most food types, while rural households and low-income urban households have more income-elastic demand for quantity. Food quality—as measured by the unit value paid for items in a particular class of foods—rises with income at all income levels. Greater quality accounts for most of the increase in food spending by high-income households.