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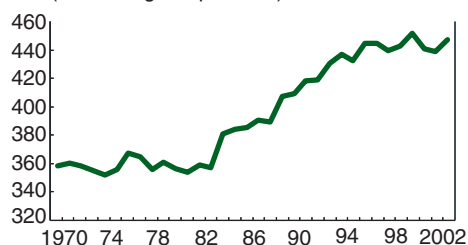
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Vegetable Consumption Away from Home on the Rise

In a seemingly never-ending quest for convenience, a more affluent but time-challenged U.S. population is eating more meals away from home. As the share of total food consumption away from the home has risen over the last two decades, so, too, has the share of vegetables consumed outside the home. Per capita consumption of all vegetables averaged 445 pounds in 2000-02—25 percent greater than 1980-82—with about half the growth ascribed to the away-from-home market.

Annual per capita vegetable consumption continues to rise

Lbs (fresh-weight equivalent)



Popular restaurant foods, such as sandwiches, pizza, salsa, and salads, helped boost away-from-home vegetable consumption over the past two decades, but none has influenced this increase more than frozen french fries. Processed potatoes (largely french fries and chips) accounted for 27 percent of the growth in total vegetable consumption since 1980-82. Per capita consumption of potatoes for

frozen products (largely french fries) increased 50 percent to 58 pounds per year. While the majority of chips are consumed at home, about 88 percent of all french fries are consumed outside the home, with three-fourths sold through fast food establishments.

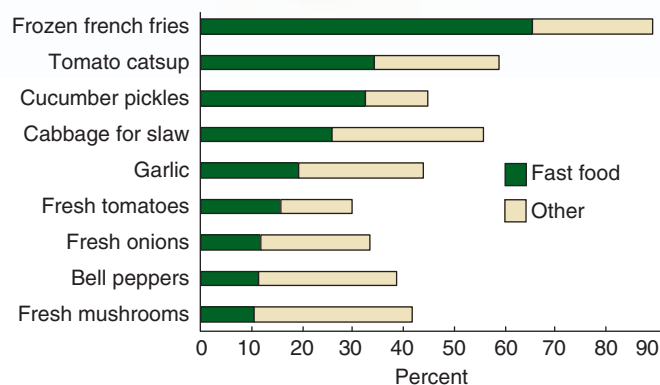
Although most tomato products are consumed at home, about 15 percent of tomatoes are processed into catsup, of which one-third is consumed outside the home with fast foods. With the advent of extra-large sized servings by the leading fast food chains in the 1990s, french fry consumption increased by one-third, which, in turn, increased catsup demand.

For similar reasons as catsup, about 45 percent of pickled cucumbers are consumed away from home. About a third of all pickled cucumbers are used in fast food sandwiches and in associated condiments, such as relish.

The increased use of onions, garlic (used widely in sauces, ethnic foods, and other items), mushrooms, peppers, and fresh-market tomatoes in the foodservice industry has also contributed to the growth in per capita vegetable consumption. Foodservice use accounts for at least

Americans' vegetable consumption away from home reflects popular restaurant foods

Share of vegetables purchased away from home, 2000-02



30 percent of consumption for each of these commodities, with garlic at more than 40 percent. One-third of fresh onions are consumed away from home, with full-service restaurants accounting for 15 percent. The popularity of salad bars, various ethnic dishes, salsa, and whole-onion appetizers in these restaurants has likely helped push consumption higher. W

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This finding is drawn from . . .

Several articles by Gary Lucier, Biing-Hwan Lin, and others, which can be found at the ERS Briefing Room on Vegetables and Melons, at www.ers.usda.gov/Briefing/Vegetables/Readings.htm

North America: One Market, Big Payoffs, Many Challenges

Measures taken by the United States, Canada, and Mexico to integrate the North American food and fiber system have paid large dividends—lower prices and a wider variety of foods, increased real income, and easier access to each other's markets.

A unified North American market transmits more accurate price signals across national borders, information that better reflects continental supply and demand. With better information, farmers specialize in

production activities in which they are comparatively proficient, consumers pay lower prices, and societies benefit from technological innovations and economies of scale. The lure of such payoffs explains the genesis of the World Trade Organization, the European Union, and many regional trade agreements.

The interconnectedness of the three national markets is evident. U.S. agricultural exports to Canada and Mexico are five times greater than U.S. exports to the rest of the world. In addition, U.S. food processing firms are outsourcing more of their production in Canada and Mexico via strategic alliances, joint ventures, and foreign direct investment.

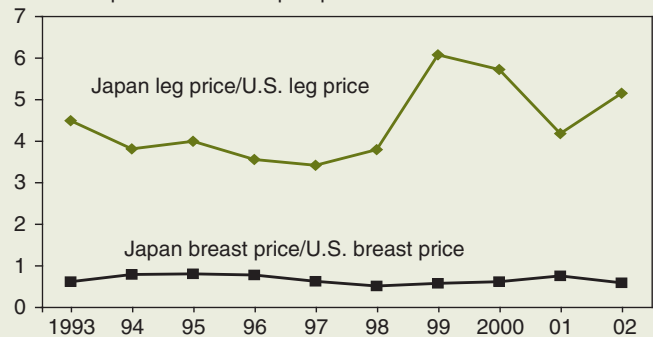
PhotoSpin

Differences in Demand Help Shape Meat Trade

At a value of over \$40 billion (10 percent of global agricultural trade) and a volume of 20 million tons per year, global trade in meats is big business. Growing populations, rising incomes, and increased urbanization have all contributed to a boost in demand for meat. This demand has been supplied, in part, by low-cost meat from countries with good resources for meat production, such as abundant feedgrains. But other factors, such as numerous import tariffs and sanitary rules safeguarding the health of animals and humans, affect meat trade as well. Yet another dimension to global meat trade is differences in demand for meat cuts.

When it comes to chicken parts, Japanese consumers demand legs more than breasts

Ratio of Japan/U.S. chicken part prices



Most meat trade is in the form of cuts. One cut, or part, of a slaughtered animal can be shipped to one place while other parts are sent elsewhere. Demand for the parts varies considerably, both within and among countries, depending on consumer tastes, whether cuts can be substituted for one another, and other factors. In the U.S., for example, consumers prefer beef steak to beef liver. Despite the greater abundance of steak meat (a steer yields about 16 times more steak than liver), the U.S. price of steak is much higher than that of liver. Chicken legs are prized in some countries but get a low price in others. Chicken legs are 4-5 times as expensive in Japan as in the U.S., but chicken breasts cost 25-40 percent less in Japan. The price differences reflect consumers' willingness to pay for these cuts.

Some trade seems to reflect these differences in demand, rather than competitiveness in producing the meat. For example, it is uncertain whether chicken and hog production costs less in the U.S. than in China. The large U.S. exports to China do correspond to



Photo by Fred Gale, USDA/ERS

demand for different cuts, however. The main U.S. chicken exports to China are feet, wings, and legs, while the main pork exports are organs, such as hearts.

The ability to mix and match cuts for different markets offers meat firms the opportunity to send each part of an animal to the market that will pay the highest price for it, thereby increasing the aggregate value of each animal. If lower tariffs or increased success in meeting sanitary standards allow meat trade among more countries in the future, trade in cuts is likely to proliferate as firms find higher valued matches for various cuts. **W**

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This finding is drawn from . . .

Structure of the Global Markets for Meat, by Ken Nelson and John Dyck, AIB-785, USDA/ERS, September 2003, available at: www.ers.usda.gov/publications/aib785

Payoffs from integration include:

- Under the North American Free Trade Agreement, many tariffs have been lowered or eliminated, widening access to all three markets. As a result, incomes increased in all three countries because producers were able to more fully respond to continental differences in tastes and preferences and to make better use of available resources in North America.
- Mexican farmers have gained more export access to U.S. and Canadian markets for fruits and vegetables. And American and Canadian farmers are meeting Mexico's relatively high demand for staple commodities, such as corn and oilseeds.
- Cross-border investment in processing facilities has lowered production costs, enabling food suppliers to more effectively satisfy consumer demand for convenience foods by offering a wider variety of low-priced products.

Though increased trade has clearly resulted in benefits to society, institutional obstacles continue to segment national markets, limiting the gains from trade. For example, nonuniform inspection, grading, and labeling standards raise production costs for meat in supermarkets in the U.S., Canada, and Mexico. North American agricultural markets also stand to gain from universal commercial laws, common antitrust and regulatory procedures, and better coordination of domestic farm, marketing, and macroeconomic policies. **W**

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This finding is drawn from . . .

North American Agricultural Market Integration and Its Impact on the Food and Fiber System, by Thomas L. Vollrath, AIB-784, USDA/ERS, September 2003, available at: www.ers.usda.gov/publications/aib784