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Focus: Meat Demand

Future Trends for Meat Demand

Linda J. Cox and Peter V. Garrod*

A glance at the demographic of the U.S. population provides some insight into future meat consumption. The projected population growth is estimated to be less than one percent per year for the next hundred years and is expected to approach zero after 2010. The meat industry can no longer expect much expansion due to population growth.

The median age of the population is rising. The percentage of the population over 65 will continue to grow, while those under 35 will decline. Older consumers will eat less food and, in particular, less beef. They also may experience a decline in their sense of taste, making flavor enhancement appropriate. The average size of households is getting smaller and the percentage of the population living alone has increased. Smaller and older households may both be concerned with portion size and convenience.

Consumers' taste preferences vary depending their geographic location and ethnic background. The population is now centered west of the Mississippi, with the Western US having the highest growth rate, followed by the South. This is due to higher birth and migration rates in those areas. Most of the new immigrants are from Latin America and Asia who may prefer different cuts of meat and flavoring.

Red meats must continue to dispel the image of being unhealthy. This issue is currently being addressed very successfully and the situation has eased in the past few years. Various consumer educational programs have been positively received by consumers, health professionals and retailers.

A second issue is the relative cost disadvantage of beef and fish. Their production and management systems do not lend themselves easily to vertical integration, geographic concentration and immediate improvement. Decreasing production costs of beef and fish will probably not occur in the near future. However, staying price competitive is crucial and continuing efforts in this area are imperative if the industries wish to maintain their market shares.

A third issue, where chicken has excelled beyond the other types of meat, involves segmenting the market to provide the various groups of consumers with a product that better fits their preferences. This means becoming more consumer oriented and selling more branded products rather than just selling commodities. For example, organically produced beef, economical no-roll beef, closely trimmed cuts, family packs, precooked and vacuum-packed, individual portions, and semi-processed may all contribute to greater overall demand for beef. The various products must be targeted to the consumers willing to pay for the characteristics they desire. Tailoring production to what consumers desire should be more profitable than persuading them, via advertising, to buy whatever is produced.

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The History of U.S. Meat Production

Linda J. Cox and Peter V. Garrod

Before 1953, pork was the most widely consumed meat in the United States, comprising 45 percent of the domestic meat market. Gradually, beef consumption replaced pork in the top position in the late 1950's. At the same time, poultry consumption began a steady increase. In 1978, the retail weight per capita consumption of chicken and turkey passed that of pork Beef's market share is currently greater than that of pork, poultry and fish, but beef's top position may be challenged in the future if consumption of chicken and turkey continues to grow.

Research since 1970 has focused on three major factors in meat demand: 1) the mature market hypothesis; 2) relative price effects; and 3) changing consumer taste and preferences.

* Mature Market Hypothesis *

From 1960 to 1971, there was a rapid annual increase in meat consumption. A gradual stabilization occurred through the late 1970s and early 1980s. The data in Figure 1 indicates that the meat industry may have matured, beginning around 1975. Little or no increase in per capita consumption can be expected in a mature meat market because consumers have reached a desired level of consumption. Only population growth would result in total market expansion, while increased consumption of one meat would occur at the expense of others.

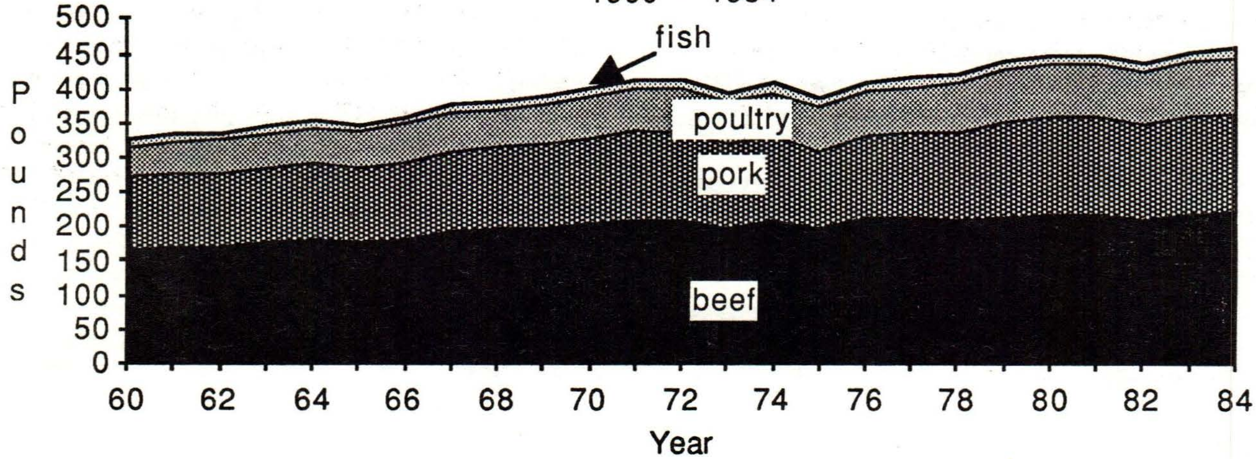
* Relative Price Effects *

Past economic studies of meat demand have generally confirmed the basic inverse relationship between price and consumption. This means that as prices increase (or decrease), consumption decreases (increases).

Relative prices differences among meats and fish have been shown to be a major factor in changing market shares. From 1965 to 1984, the real price of most meats declined. Beef and pork prices have fallen 25 percent and poultry prices fell further, by 43 percent. Correspondingly, red meat has lost market share to poultry. The shift in market shares is more dramatic when measured in terms of pounds consumed (Figure 2) than when measured in terms of expenditures (Figure 3). Indeed, expenditure shares between red meat and poultry have not changed much.

It now costs three times as much to produce a pound of beef as it does to produce a pound of chicken. Pork is about twice as expensive as chicken. Changes in the relative costs of red meats, poultry and fish are primarily the result of technological changes. The biggest change has occurred in chicken production, where small-scale operations have evolved into an integrated, capital intensive industry. Confined production is the norm in chicken production and is becoming the norm in hog production. Beef production

FIGURE 1
Per Capita Consumption of Meat, Retail Weight
1960 - 1984



Continued from page 2

and fishing methods have changed the least. Research has shown that changes in production costs in the past have accounted for about 85 percent of the changes in market shares between beef, pork and poultry.

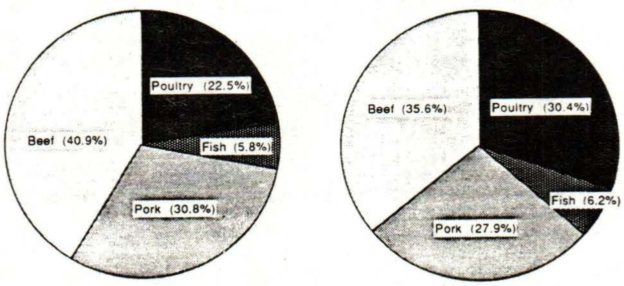
Only fish prices have risen, a total of 24 percent. Yet fish consumption shares have increased, both on a weight basis and on an expenditure basis. Relative price effects offer a reasonable explanation for the shift from red meat to poultry but do not explain the increased share of fish in the consumer diet.

* Changing Tastes and Preferences *

During the 1970s and early 1980s, a health and fitness trend developed which may have affected the decline in red meat consumption and increase in the consumption of poultry, fish, fresh fruits and vegetables. In 1977, the United States Senate published guidelines recommending reduced red meat consumption. Consumers were also urged to eat less animal fat by the National Institutes for Health.

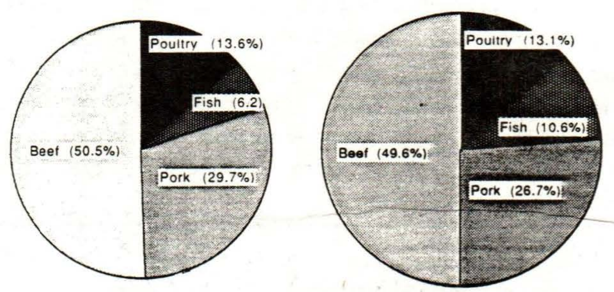
While research in the professional economics literature generally concludes that the shift in consumer preferences between beef, pork and poultry is related to the relative prices among these meats, the case of fish illustrates how changing tastes and preferences are also important factors.

FIGURE 2. Meat consumption shares
1965 1984



181 lbs. Per capita consumption 221 lbs.

FIGURE 3. Meat expenditure shares
1965 1984



$391 Real per capita expenditures $378
(1984 $$)

What Do Hawaii Beef Consumers Want?

Linda J. Cox and Peter V. Garrod

It has become increasingly apparent during the past decade that consumers' preference for leanness in the beef they purchase is by no means the same. Some consumers prefer lean beef, others prefer substantial intra-muscular fat (marbling), while many, and probably the majority, have no clear preference. The manner in which beef is retailed reflects this wide range of consumer preferences.

There are essentially three distinct beef marketing strategies found in food chains throughout the nation. One group of food chains markets lean beef, either on a specification or no-roll basis. This generally involves beef that would qualify as USDA Good or (low) USDA Choice. Nearly all of these stores market their beef under a housebrand. The second group retails USDA Choice beef and often stresses the term "grain-fed". The third and smallest group of food chains markets two grades of beef, usually USDA Choice and a leaner, housebrand beef.

The composite of strategies among retailers across the country varies, depending on the region. In general, consumers in the West prefer leaner beef than those in the East and therefore, more meat counters in the West carry leaner, privately labeled beef than those in the East. The situation in Hawaii mirrors what has happened in the rest of the country, especially the West.

* UH Beef Taste Tests *

Due to the interest of the Hawaii beef industry in determining the preferences of local consumers for

Continued on page 4

fresh beef, an in-store experiment of steak purchase decisions was conducted by UH agricultural economists. The test took place in October and November of 1985 and was designed to analyze the effect of three variables (price, grade and labeling) on shoppers' purchase decisions in two supermarkets on Oahu.

Shoppers were divided into three groups, according to their stated preference for marbling. Seventeen percent of the shoppers cited less marbling as a reason for selection (LM group); twenty-two percent cited more marbling (MM group), and sixty-one percent did not cite marbling as a selection criterion (NM group).

Increasing the price of the Choice grade steak did not affect the purchases of the MM and the LM groups, but it did decrease the purchase of choice steak by the NM group. The group that preferred more marbling was willing to pay more for a Choice grade steak, while the group that preferred less marbling continued to prefer the cheaper Good grade steak. The majority of the shoppers, who had no marbling preference, preferred the cheaper Good grade steak. Data from the experiment shows that a 20 cent decrease in price caused one-third of these shoppers to switch from a choice steak to a housebrand steak.

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None of the groups preferred a USDA choice label over a housebrand label or vice versa , as long as both were priced the same and had similar characteristics. The presence of a label alone did not influence consumer purchases. It was the characteristics of the beef, which are associated with the label, that most affected shoppers' decisions.

It was found that a shopper's socio-economic background had no effect on their preference for choice or good steak. Knowing the annual income, ethnic background and education of the shopper was not useful for predicting marbling preferences.

* Implications for Marketing Beef *

Consumers with strong grade preferences (those in the MM and LM groups) account for about 39 percent of the market. They are willing to pay more for beef that has the level of marbling they prefer. Targeting the different preferences of these two groups should be a profitable marketing strategy, given the large number of consumers involved.

The remaining 61 percent of the market (shoppers in the NM group), appear to choose between based on price, not on grade. The profitability of meeting this market demand hinges on maintaining competitive prices.

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