# World Meat Trade - A U.S. Perspective

Steve Reed
Agricultural Economist, USDA/ERS

Livestock and poultry producers increasingly operate in a competitive environment favoring "low-cost" firms that typically are larger, more efficient, and able to spread fixed costs over higher production volume.

Record meat supplies over the past several years have increased competitive pressures in the red meat sector and reduced operating margins. Industry consolidation within the poultry and pork sectors has been dramatic and with this change, increased public awareness and concern.

However, U.S. consumers have benefited from large meat supplies at lower prices. Record meat consumption has occurred during most years of the 1990's while expenditures for meat continue to decline as a percent of disposable income. Food expenditures in 1996 likely will fall below 10 percent of disposable income, with meat proteins accounting for about 2 percent. This is one reason why U.S. meat consumption is higher than any other region of the world.

Consumers in most other developed countries spend nearly twice as much of their disposable income on food items. The links between per capita income and meat consumption are strong. Income growth, typically a prerequisite for higher consumption, is expected to rise as world trade barriers are reduced and trade increases.

Tight world grain supplies this winter and sharply lower feed grain stocks available for livestock and poultry rations could impact meat supplies in 1997 if harvested crops this year do not replenish inventories. Projected 1995/96 ending U.S. feed grain stocks will fall nearly 70 percent from a year earlier, and 56 percent below 1993/94. Global 1995/96 coarse grain supplies also are down sharply from the past two years, and are fueling strong U.S. grain exports in spite of higher prices.

So far, higher prices have not slowed either international demand for feed grains or forced liquidation of breeding inventories in most countries. In the U.S., feed requirements continue to increase due to expanding inventories. Hog breeding inventories on December 1 were up 1 percent from a year earlier with December 1995-May 1996 farrowing intentions suggesting expanding year-over-year production increases this spring through second-half 1996. Poultry sector expansion remains strong, with broiler production expected to rise 6 percent this year and turkey

production, although slowing, up 3 percent. Total cattle on feed on January 1 were up 3 percent from a year earlier.

With larger meat supplies expected in 1996, U.S. meat processors are looking to expanding international markets to offset expected declines in U.S. prices and profits. Several countries have rapidly increased their meat imports in recent years and have become important customers to both U.S. and foreign firms. Unfortunately, the list of potential customers is somewhat limited and competition between exporting countries and meat groups within each country for export dollars are expected to intensify.

## Major Importers

### Japan

Japan is the worlds largest meat importer. It also is one of the U.S.'s most important clients, taking about 55 percent of our beef exports, 48 percent of our pork exports, and 7 percent of our broiler exports in 1995. U.S. red meat exports, in particular, have grown rapidly in recent years. But these rates are not deemed sustainable even as Japan becomes more dependent on external suppliers.

Japanese beef imports currently represent about 60 percent of domestic consumption, up from 50 percent in 1990. During this same period, per capita consumption rose from 19 pounds to 26.5 pounds. U.S. suppliers benefited both from rising consumption and expanding imports. Growth rates in the future may be sharply lower, however. By 2005, imported beef will account for closer to 70 percent of domestic supplies, but per capita consumption is forecast to rise only 3-4 pounds from current levels.

Japanese consumers eat nearly 40 percent more pork than beef, but are less reliant on external suppliers to meet domestic requirements. There also are more countries vying for market penetration. U.S. market share in the Japanese pork market is about 20 percent compared to 45 percent for beef.

Japanese pork imports accounted for about 38 percent of consumption last year, compared to 24 percent in 1990. Over the next decade, imports are expected to increase to nearly 50 percent of domestic supplies, but total demand increases may be limited to population growth. Per capita supplies are forecast to reach 39 pounds in 2005 versus 37.5 pounds in 1995.

U.S. meat exports are projected to continue expanding, but rates of growth will decline sharply in future years. Expansion will rely more on buying market share from export competitors rather than relying on trade initiatives or rising per capita consumption to drive volume increases. Prospects for the pork sector appear more favorable in this regard. Pork exports from Taiwan are expected to drop off due to increasing public

pressure to limit production due to environmental concerns.

U.S. beef processors likely will continue to hold a comparative advantage in grain fed beef exports, but these meat cuts are expensive and will require rising incomes to support continued growth. Competition from Australian, New Zealand, and emerging South American grass-fed beef cuts is expected to remain stiff.

### Russia/FSU

Russia and the FSU currently are the second largest meat importing region. This situation remains volatile, however, and trade patterns will remain volatile. Red meat imports from the U.S. were up sharply in 1995, primarily lower valued trimmings material used in the manufacturing sector. These products were competitively priced with broiler leg quarters due to large U.S. supplies at sharply lower prices. Future growth will depend on continued availability of low priced products that are deemed surplus in the U.S. market.

Longer term prospects for growth also do not appear favorable. This region still has the potential to become food self sufficient and a potential export competitor if the regional economy is restructured.

### Other Importing Countries

After Japan and Russia/FSU, the number of other major importing countries begins to drop off quickly. Most market growth will continue in Pacific Rim countries like Korea, Hong Kong and China, but rates of growth will be modest. The U.S. comparative advantage will continue for broiler exports, but pork sales will be modest and will have to compete with regional suppliers. China currently is expanding hog breeding herds to increase supplies for domestic consumption and for export. U.S. pork sales to Korea could be at risk in the future if Chinese production exceeds domestic needs and surpluses are exported to nearby countries.

## Domestic Outlook

### Pork Sector

Industry consolidation in the pork sector has increased in recent years due to large total meat supplies, rising costs, and lower profits. Production by smaller producers that exit the business is being offset by larger operators.

Hog production began expanding rapidly in the early 1990's following several years of steady profits in the late 1980's. Venture capital flowed into the sector to greatly

expand production in several states and for capital improvements on existing facilities. These newer operations adopted the latest technological advances in animal nutrition, used improved genetics in their breeding herds, and were able to control environmental conditions and reduce exposure to disease, thus improving rates of gain and pounds of pork marketed per breeding animal.

As pork supplies have increased and market prices declined, producer margins have eroded. Profits have narrowed for all producers, but particularly smaller producers that typically have higher average costs. The industry is becoming more sharply divided between small less capitalized operations and the newer "corporate farms". Political pressure has intensified in several states to limit the expansion of the large commercial operations. Arguments against the larger operations include both unfair competition and environmental concerns from effluent that may lead to ground and surface water contamination and increased odor.

The number of U.S. hog operations in 1995 dropped to 182,700, 12 percent below the previous year. A similar decline is likely in 1996. This contrasts with continued growth of the largest operations which expanded their share of the U.S. inventory to 43 percent in 1995 versus 37 percent a year earlier. These operations represent less than 3 percent of the total hog farms, and nearly one fourth of these operations are located in North Carolina.

Future growth within the sector will be limited to producers who can manage under a lower cost structure. Total production increases through 2005 will be very limited, as per capita pork supplies are projected to remain nearly unchanged at 50 pounds.

Beef Cattle Sector

The beef cattle sector includes several distinct subgroups that historically have operated in a competitive and sometimes adversarial capacity. The three groups are cow/calf, stocker, and feedlot. Profits at each level are derived from processor demand which is driven by retail sales volume and prices.

Structural changes within the cattle sector have occurred primarily beyond the ,itial stage of production. Fewer and larger cattle feeders market an increasing proportion of the fed beef supply. Many of these large feedlots are owned by international grain merchandising companies that also own meat processing companies. However, unlike segments of the pork sector where vertical integration between growers and processors is prevalent, most business arrangements within the cattle sector are limited to vertical coordination of supplies.

Even when under the same parent company, feedlots and processors maintain distinctly separate managements. Each entity is viewed as a profit center with

contractual arrangements limited to pre-arranged delivery schedules for cattle going to a particular plant and at a specified price based on market averages for the delivery period.

For most cow/calf and stocker operators, the size of the operation is limited to the available land base. Increasing the carrying capacity per acre would require large capital infusions which are difficult to justify given the historically low return on investment. Expanding forage acreage would have to pulled from the crop sector which may be difficult over the next few years. Most beef cow herds remain small with less than 50 head. Thus, off farm income or revenue from other farm enterprises is necessary to support a family.

Poultry Sector

Growth in broiler and turkey production over the next decade will account for nearly all of the increase in per capita meat supplies. Per capita poultry consumption is projected to equal red meat consumption by 2005. This requires only a modest annual growth rate of 2-3 percent, but the cumulative change exceeds 25 percent by the end of the period. At that time, U.S. processors are forecast to take 36 cents of every consumer dollar spent on meat versus 29 cents in 1995. Most of that increase will come at the expense of the beef sector.

Marketing Trends

The farm-retail price spread for beef and for pork has increased sharply during the past decade. However, rather than being an indication that those firms in the marketing channel have fattened their profits, it is an indication of the rising cost of doing business and of the increased desire of consumers to have more value and conveniences included with the meat products they purchase. With rising labor, energy, and other costs, charges for marketing meat can be expected to rise further.

Passing higher marketing costs on to consumers is becoming more difficult, however, particularly in the current environment of record large total meat supplies and increasing competition between the meats for the consumer dollar. Consumers have shown an increased willingness to substitute cheaper cuts of meat or cuts from other animal species if prices get out of line, and retailers have had to adjust their merchandising strategies accordingly. Thus, higher prices sought by producers or paid by processors may not be accepted readily by retailers. At the same time, higher processing or marketing costs are being passed back down the marketing chain as lower prices at the producer level.

Producers and processors have absorbed higher costs by decreasing operating

margins and increasing volume to maintain a constant revenue stream. This strategy has resulted in higher concentration ratios in meat slaughter/processing and the rise of "corporate farms" that currently are being criticized by smaller producers who cannot compete under the lower cost structure.

The price at which the retailer can sell the meat and the cost of marketing the meat determine the price that can be paid for live animals. Thus, the producer price becomes a residual. But this residual price must be high enough to give the producer a profit or he reduces his output in the long run.

Current Situation

Grain price increases resulting from the reduced 1995 feed grain harvest have impacted the various livestock sectors differently. For cattle, much of the increase in feed costs has been offset by reducing bids for feeder cattle. This has resulted in sharply lower returns to both cow/calf and stocker operations. And with large supplies of feeder cattle remaining on grass, further grain price increases likely would force feeder cattle prices lower.

The situation in the hog sector is mixed. Low cost operations have seen profits decline, but have not yet reported significant losses. Higher cost producers have not been able to absorb higher feed costs and likely will begin reducing breeding herds this spring.

In the poultry sector, higher grain prices have decreased profit margins for broilers, but returns remain well above a year earlier due to higher wholesale prices. Returns are expected to decline into spring but remain positive if further grain price increases remain modest.

Turkey producers already are reporting losses due to higher feed costs, but profits last fall were the highest since 1986, and will partially offset projected losses over the next 6 months. Egg producers continue to report sharply higher profits in spite of higher feed costs. Lower production over the past few months has supported recent price advances. However, larger production is forecast by later this spring and prices are expected to trend below breakeven costs.

Prospective Developments

Livestock and poultry producers have expanded meat output in spite of rising ration costs. For pork and poultry, some of this response likely is due to structural shifts within the respective industries. Larger producers that enjoy a lower cost structure can absorb the higher grain prices without cutting back production. These operations may also have access to additional capital to carry them through a perceived unprofitable short run situation.

However, If crop prospects are not favorable this summer, liquidation of breeding animals will increase, leading to additional meat supplies and even lower prices in the short run and lower production next year. Retail meat prices are not expected to reflect higher grain prices in 1996 due to large available supplies and competitive pressure between the meats. Retail prices for beef, pork, broilers, and turkeys are expected to trend lower.

If grain prices remain high through the summer, pork producers likely would be the first to begin reducing breeding herds. Breakeven costs will approach the mid-$40's per cwt later this spring, and hold at that level till post harvest. Hog prices are not expected to exceed this level due to rising second half production.

Higher grain prices, if they persist, are expected to moderate current expansion plans within the broiler industry, which may not show up until 1997. Sharply higher profits in 1995 are fueling the current production increases, but these could be toned down if crop developments this spring turn less favorable. Production currently is forecast up 6 percent in 1996, following a 5 percent increase last year.

Beef production is forecast to rise 2-3 percent this year, due in part to higher beef cow slaughter. Lower calf prices last fall and in 1996 will fuel increased culling from beef cow herds, but higher grain prices likely only speeded up a situation that would have occurred in 1997-1998. So far, negative returns have been limited to cow/calf and stocker operations.

Cattle on feed at the beginning of the year were up 3 percent from a year ago, following a 4 percent increase in net feedlots placements last fall. Favorable returns during the summer, and fall and larger feeder cattle supplies at lower prices, helped keep feedlot pens full. Feedlot placements and fed cattle marketings are expected to remain higher throughout 1996 in spite of potentially higher grain prices. However, this assumes that additional grain price increases will be offset by further declines in stocker cattle prices.

Higher grain prices have not resulted in declining slaughter weights for either cattle or hogs. Feedlot cattle marketed in January approached record weights, and slaughter hogs are averaging 3 pounds heavier than last year.

Major Risks in the Outlook

Several factors and issues could alter the outlook presented in this paper with both short term and long run implications. Among these issues are:

Adverse weather this winter could affect livestock production and disrupt near term supplies. A series of winter storms in the High Plains during early 1993

reduced cattle weights, lowered rates of gain, and increased death losses. Beef supplies were reduced for 2 quarters, resulting in higher live animal, wholesale, and retail prices. Higher retail beef prices created an opportunity for both pork and poultry processors to increase their prices. The storm disruptions took over 6 months to alleviate.

Tight grain stocks may not have been fully factored into industry analysts expectations. The supply and utilization tables for feed grains suggests sharply lower feed grain stocks available for livestock and poultry rations while animal requirements have increased due to expanding inventories. There remains a broad assumption that grain supplies will be available although at possibly higher prices. Current grain prices still do not reflect the level of rationing that may be required to limit total use to available stocks.

A below average grain harvest this year would hold grain prices at current levels or higher and result in significant liquidation of breeding herds. Meat supplies would increase, and livestock prices would decline below current expectations. Meat supplies in 1997 would remain large, but begin declining below projections expressed in the USDA baseline scenario beginning in 1998.