

The U.S. Pork Production Market

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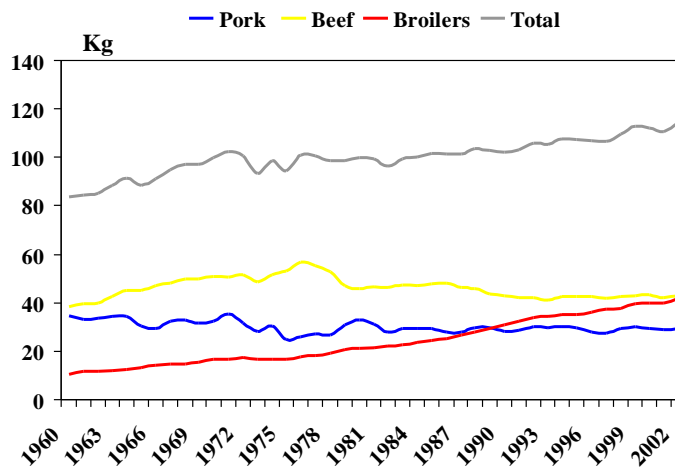
The United States pork production market has undergone many changes in recent years. The industry up until the past ten years was primarily made of many small farms that had integrated farrow-to-finish operations focused on selling through open markets for domestic pork consumption. Recently, however, the industry has undergone a dramatic change to one driven by much fewer, much larger producers who are increasingly finishing specialists and who sell contracted production for high value global markets as well as domestic consumption.

U.S. Domestic Pork Consumption Trends

Unlike some markets around the world, consumption of pork in the United States leveled out many years ago. In fact, over the past 40 years in the U.S. poultry is the only major protein experiencing significant share growth.

Total per capita protein consumption has leveled out at about 115 kg/person/year (Figure 1). Per capita consumption of beef and pork has actually been flat to declining over that period of time. As a result, the primary source of business growth for pork producers has been to either gain domestic share (through consolidation) or to increase pork exports.

Figure 1. U.S. Per Capita Consumption of Alternate Protein Sources



Source: Economic Research Service/USDA

Structural Changes

At the peak in the 1940's there were nearly a million farms producing pork in the United States. However, rapid consolidation has resulted in the number of U.S. pork producers dropping dramatically to around 75,000 at present. Of these producers, the operations with more than 5000 head make up half of the production, with over 70% of production from those over 2000 head. Small pork producers (<1000 head) are declining rapidly, with less than 2% of production, compared to 32% as recently as 1988.

Figure 2. Output from Large U.S. Producers.



Operations with 5,000+ head were not reported prior to 1996.
Source: USDA, NASS, Hogs and Pigs, various issues.

In addition to larger operations, a key recent change in the U.S. market has been the growth of vertical coordination. As recently as 1993, nearly 90% of U.S. pork producers sold hogs on the open market. As processor consolidation proceeded, the need for less uncertainty regarding supply and cost of hogs has resulted in an explosion of contract production.

Today approximately 80% of U.S. hog production is produced under contracts to processors. The practical impact of this change is that market prices are somewhat less sensitive to supply and demand fundamentals, since many of these contracts set prices months or even years in advance of actual production. This also means the market is less likely to reduce production in times excess supply, making prices drop even further than they otherwise would, and also slowing the capacity expansion usually stimulated by high market prices.

U.S. Pork in Global Trade

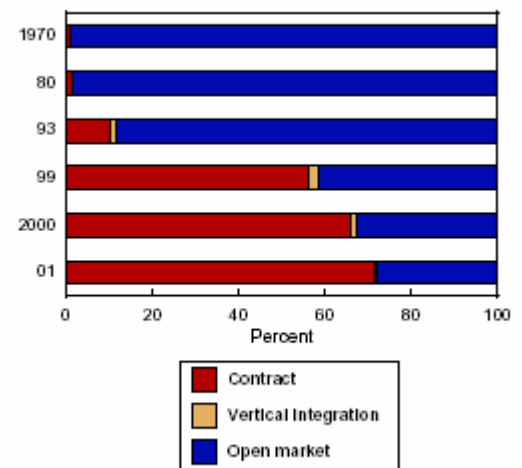
Another key change in the U.S. market in the is the past 15 years has been the explosion of the export market. In 1986 U.S. pork exports were around 100 Million pounds (45,000 Metric Tons) to current exports of nearly 2 billion pounds (900,000 MT), a 20 fold increase.

As Figure 4 illustrates, U.S. imports have grown dramatically during that period, but it is important to note that much of this growth has been live hog (feeder pig) imports from Canada. In the ten year span from 1992 to 2002, live hog imports from Canada grow five-fold from 1 million head to year to over 5 million head per year. Of these hogs, roughly 70% are feeder pigs and the remainder are slaughter hogs, mostly under contract to processing plants in the northern United States.

This change reflects the role differentiation occurring in the U.S. pork production industry. During this period, the beginning stocks of sows has declined 40% from nearly 10 million to 6 million. This reflects the decline of traditional farrow-to-finish operations, as increasingly Canada is a specialist in feeder pig production, while the U.S. moves to a specialist role as feeder pig finishing and processing.

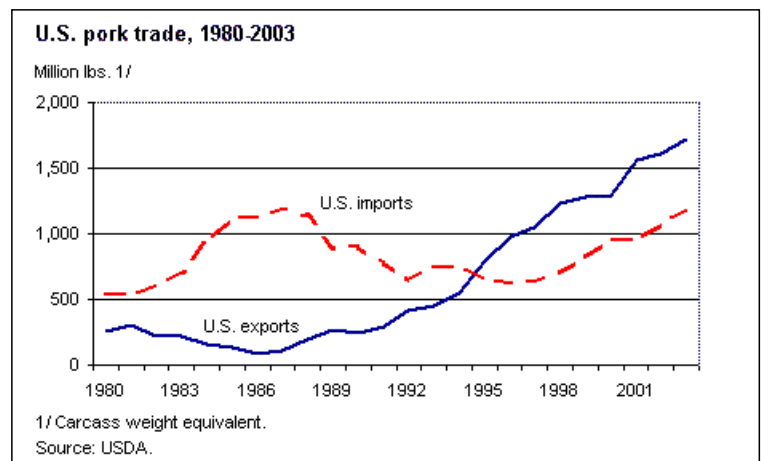
Figure 3. U.S. Pork Contracting

Share of hogs delivered to processors via contracts and vertical integration



Sources: Hayenga et al., 1996; Marton; University of Missouri and National Pork Producers Council; and Kelley.

Figure 4. United States Pork Trade, 1980-2003.

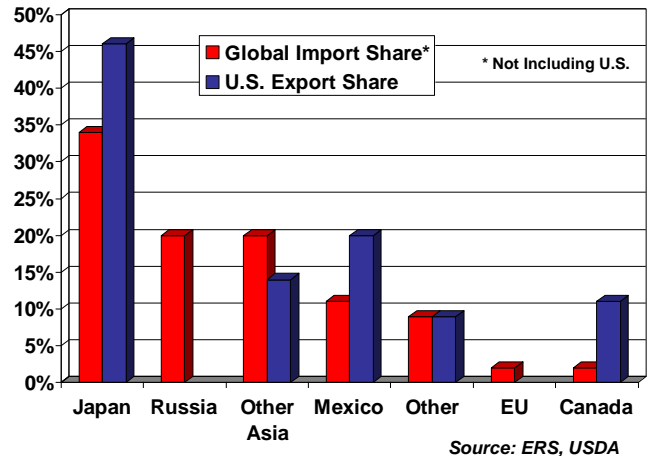


1/ Carcass weight equivalent.
Source: USDA.

United States' Global Customers

The U.S. position is essentially a high value exporter to Japan and Asia (Figure 5). Japan and other Asian countries represent nearly 60% of U.S. exports, while Canada and Mexico make up most of the remainder. The U.S. has a minimal market presence in Europe and Russia, the latter being the dominant market for Brazil. It seems unlikely that that U.S. pork exporters will gain a significant share of these markets, and will also be a challenge for Brazil to gain significant share in Japan. China, in contrast, is likely to become a net importer in 3-5 years and may well be similar to Russia in being very price conscious and focused on low value-added products.

Figure 5. United States and Global Pork Trade, 2003.

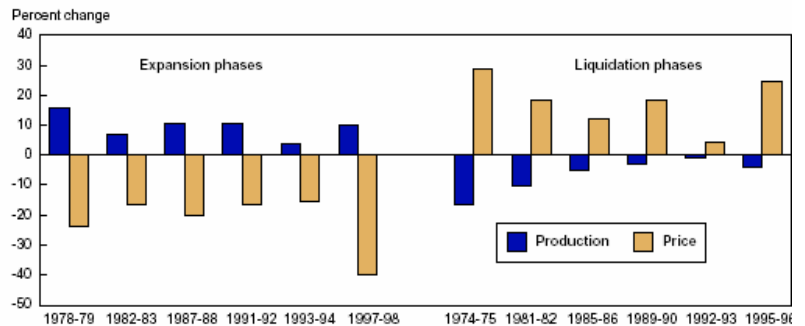


Avoiding “Boom and Bust”

The challenges of the U.S. pork industry are in many ways the same ones they have always been - avoiding overproduction and very low prices. Figure 6 illustrates how the industry has historically experienced a series of expansion driven price “busts” and liquidation driven price “booms”. It will be interesting to see if the increasingly consolidated and contract driven industry will be as likely to dramatically expand production when prices are high or be as quick to liquidate when prices drop.

Figure 6. “Boom and Bust” Periods in U.S. Hog Production.

Hog price and production changes over selected periods



Challenges for the Future: Six Questions

While I certainly have no crystal ball, it seems to me that the answers to the following six questions will be critical to determining the near term profitability of the U.S. pork production industry:

1. Will the Decline of Adkins Diet “Tailwind” Undermine Domestic Demand?

The United States has seen robust growth in overall protein consumption in the past few years, attributable as least in part to the popularity of the low carbohydrate Adkins diet

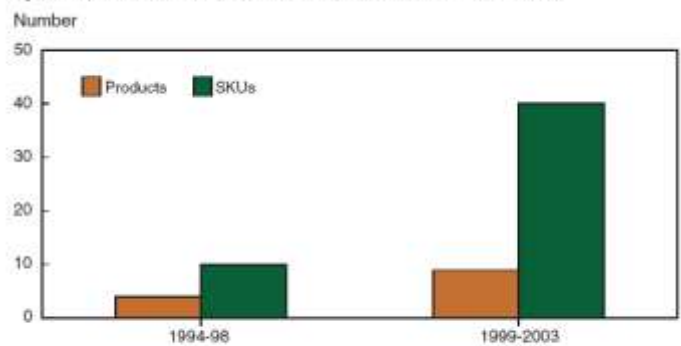
(during the same period of time, U.S. flour millers have experienced dramatic declines in flour consumption of 10% or more). The result of this trend has been strong protein prices despite high supply, as consumers shift carbohydrate dollars into proteins, especially pork. There are some indications, however, that this dietary trend is losing momentum, and that carbohydrate consumption declines may moderate or even reverse in coming years while the tremendous growth in protein consumption may slow down. Given the industry's "boom and bust" pattern in the past (Figure 6), it seems logical that any significant decline in pork consumption at this point might have very negative impacts on pork prices given the growth in capacity in recent years.

2. Will Domestic Brand Development Continue to Deliver Premium Prices?

U.S. pork producers, especially large integrated pork operations, have spent significant time, resources, and energy to launch and build strong consumer brands in the pork industry (Figure 7). This has resulted in premium price opportunities and lowered the dependence of these brand marketers on core market fundamentals to ensure profitable pork operations. The true test of this "brand insulation" will be whether these brands will be able to maintain a significant premium even if pork market conditions become significantly less favorable.

Figure 7. U.S. Branded Pork Introductions.

New branded fresh pork product and associated SKUs* introduced by Swift, John Morrell, and Hormel, 1994-98 and 1999-2003



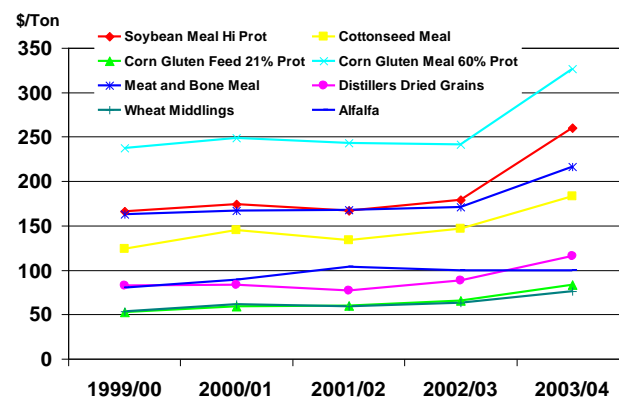
*Stock Keeping Unit (SKU) is the lowest level that activity can be tracked on an item. For example, each unique size and form combination will be assigned a different SKU number.

Source: Productscan Online, Marketing Intelligence Service, Ltd.

3. Will Commodity Grain Inflation Outrun Productivity Gains?

The largest component of the cost of producing pork is feed. Traditionally the costs of these inputs have remained relatively stable (Figure 8). However, consistent with the global upsurge in commodity prices in the past year, note the significant spike in U.S. feed input component prices in the past year. This will either lead to retail price increases for pork or to decreased margins for pork marketers (or both). Maintaining profit margins with higher input costs presents a significant challenge to pork marketers.

Figure 8. U.S. Feed Input Prices.



4. Will Beef and Poultry Suppliers Gain Share?

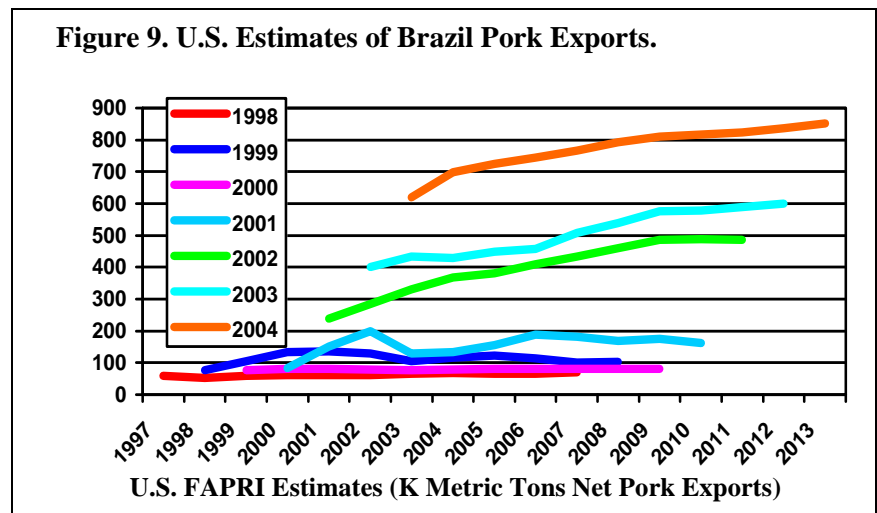
Some of the success of the pork industry in raising exports over the past few years has been driven by avian influenza concerns which decreased poultry exports and BSE which reduced cattle exports. There is good reason to believe that over time the boost to exports provided by these factors will begin to dissipate. In addition, it seems likely that domestic poultry and beef marketers will continue to work diligently to gain domestic share. The result of these factors will be tougher competition for pork in the coming years. The U.S. industry's profitability may be dependent on how well they deal with that competition.

5. Will the Falling Dollar Make the U.S. More Globally Competitive?

Domestic economic and political policies in the U.S. have resulted in high trade and budget deficits. One impact of those deficits has been the recent decline in the dollar versus other currencies, particularly the euro. While there is significant debate on the impact of these policies, many respected economists expect a continued decline of the dollar in the coming years. This could dramatically improve the global competitiveness of U.S. pork exports. In addition, it would make it more difficult for others to export into the U.S. market. For example, the 25% rise of the Canadian dollar relative to the U.S. dollar since 2002 has reduced exports to the U.S. and forced some Canadian producers to consider relocation of some facilities south of the border (in the United States).

6. Will the U.S. Continue to Underestimate Brazil?

Finally, global competitiveness of any industry is in part driven by how well they understand their competition. Figure 9 shows U.S. ten year rolling estimates of Brazilian pork exports. Note that current estimates are nearly ten times the level predicted only five years ago. Continued inability to accurately predict global competition could prove disastrous to U.S. processors.



The U.S. pork industry has undergone significant change over the past ten years to become a more global industry where consolidated model processors operate in a competitive global market. The industry must answer several key questions to determine the profitability and competitiveness of the industry in that new environment.

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