



ANALYSIS AND COMMENTS

Livestock Marketing Information Center

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INTERNATIONAL TRADE: EXPORT VERSUS IMPORT VALUES IN THE U.S. HOG/PORK COMPLEX

International trade has emerged to be a vital and an often-discussed topic among hog producers and those involved in the meat industry. Overall, trade between countries is the result of complex economic, political and historical relationships, but the key economic basis for the benefits to international trade is comparative advantage. It is rather evident that having a comparative advantage is the general position for the U.S. hog/pork industry particularly in recent years.

Interpretations of the benefits of international trade depend on where the limits of the analysis are placed. When the boundaries are set at the world level and include both consumers and producers of all products, net economic benefits are apparent in economic theory. Based on a U.S. perspective, even without allowing for possible benefits (or costs) of international pork trade to consumers, any benefits to international trade rely on how broad the sector is defined. For example, whether just the number of head of feeder pigs or slaughter hogs that flow across the U.S. Canadian international border is measured in terms of benefits/costs or whether both hogs and all the products (pork and by-products) produced from hogs are considered.

Prior to 1992, on a dollar value basis, the U.S. imported more hogs/pork than it exported; however, since then U.S. exports of pork items have remained well above the total value of imports and continued to grow. For more than a decade, the U.S. hog industry exported more dollars worth of pork and other related pork items than was imported. The switch from being a net importer to a net exporter can be credited to a variety of changes that have taken place in the U.S. as well as the international marketplace. In calendar year 2008, U.S. net port exports surged to a new record of about \$3.8 billion.

Background

This analysis takes a rather expansive, but often ignored simple value approach to hog and pork product trade between the U.S. and the rest of the world. This estimation is based on adding-up the dollar values of both U.S. exports and imports as identified in the trade statistical summaries. All types of hogs imported and exported (feeder pigs, slaughter hogs, slaughter sows and boars, and breeding stock) are considered. Categorizing hog products is rather difficult due to a wide assortment of products produced from and/or with pork products. The major category tends to be pork; however, many other hog derived products are traded in foreign markets including lards and fats, sausage casings, and pork skins. A number of these items obtain premium prices in foreign markets compared to the domestic market.

Internationally traded items are categorized by standardized commodity category codes defined in the Harmonized Tariff System (HTS). Several levels of codes exist and those codes

are adjusted over time to capture actual products traded internationally. The U.S. Census Bureau administers export codes, referred to as Schedule B codes here in the U.S., whereas the U.S. International Trade Commission administers the designation of import codes. The most detailed HTS codes are those at the 10-digit code level.

Classifying hog products is difficult due to the considerable number of products that are derived and/or directly obtained from hogs. In addition, some meat products can include pork, beef, and poultry products depending on the HTS code classification. In order to effectively capture the quantity and value of U.S. pork exports and imports, HTS 10-digit level codes for the major categories for pork and pork byproducts were reviewed and combined into the following categories: 1) Pork, which includes fresh and frozen bone-in, boneless, and carcass pork, pork sausages, and salted pork; 2) Variety Meats, such as by-products and sausage casings; 3) Pork Lard, Fats, and Oils (including greases); 4) Hog and Pig Skins; and 5) Live Hogs (includes feeder, slaughter, and breeding hogs). This is a diverse list and the best method to accurately reflect the value of the U.S. hog and pork trade industry was to sum-up the total number across categories and across countries on a dollar value basis. Export values for each category are reported by USDA-Foreign Agricultural Service (FAS) in the monthly Dairy, Livestock and Poultry: U.S. Trade and Prospects report. Import values for each trade category were derived from the values of 32 HTS codes: one 4-digit HTS code, three 6-digit level HTS codes, and twenty-eight 10-digit level HTS codes.

U.S. Exports and Imports

For more than two decades (1984 through 2008), the total dollar value of U.S. pork/hog industry exports has grown considerably as demonstrated in the accompanying charts. In 1988, the total value of U.S. pork exports was slightly more \$440 million. Exports of pork and sausages accounted for the largest share of export value followed by variety meats and lard, fats, and oils. By 1998, the dollar value of U.S. pork industry exports had surged to nearly \$1.6 billion dollars, and in 2008 the total export value totaled a record \$5.3 billion.

On a value basis, pork and sausage have driven the increase in U.S. pork industry exports. In 1988, this category comprised for two-thirds percent of total industry export value, with pork only exports (fresh, frozen, and chilled pork) comprising the majority of value. Last year (2008), the value of U.S. pork and sausage exports was a record \$4.12 billion and accounted for nearly 80 percent of the total export value. Over the last few years with particular attention to last year, the value of variety meats as well as lards, oils, and other pork fats have increased dramatically due to a number of factors, mainly spillover demand from oil and feedstuff markets. In 1998, casings and variety meats was around \$147 million, by 2008 it had increased in value to just over \$760 million, while the value of lards, oils and other fats was nearly triple that of 1998. Pork and sausage exports are followed by pork variety meats and sausage casings which in 2008 accounted for 14 percent of the total value, followed by lards, oils, and other fats, hog and pork skins, and lastly live hogs, which accounted for less than one percent of the total export value.

Prior to 1993, the dollar value of U.S. pork/hog imports was for the most part declining. However, in 1993, the trend appeared to change as the value of imports started to modestly grow and has continued to do so since. In 1995, total U.S. pork industry imports were estimated at \$690 million. By 2008, the total import value nearly tripled, to just over \$1.5 billion, down from the \$1.7 billion in 2007 due to a number of factors, including a decline in the Canadian hog numbers and exchange rates. Similar to exports, the dollar value of pork and sausage imports has been the primary element of the total import value.

The value of pork and sausage imports peaked in 2004 at just over \$1.1 billion, but has moderately declined due to larger domestic hog slaughter and imports of live hogs. In fact, last year the estimated import value for pork and sausages was just about \$858 million dollars, around \$85 million less than 2007's but still represented over half of the total U.S. import value

followed by live hogs, and variety meats and sausage casings. U.S. live hog imports have steadily grown since the mid-1990's, peaking in 2007 at over \$650 million in value. However, in 2008, the value of live hog imports declined to \$482 million, the lowest value posted since 2003. The decline in the dollar value of live hogs and pigs can be explained by significantly larger supplies of domestic hogs, a decline in the Canadian swine herd, and economic factors that reduced the demand for feeder pig imports. As a result, the share of U.S. live hog imports of total import value declined in 2008, accounting for about 32 percent of overall pork/hog import value in 2008. At the same time pork variety meats gained some 40 percent in dollar value in 2008 from the prior year and topped off at a record \$164.2 million and captured a larger share (about 11 percent) of the total pork/hog import value.

Value of Net Exports

Essentially, the net export value is simply the dollar value difference between exports and imports in a given year. From the U.S. perspective, if net exports are positive the dollar value of exports was greater than that of imports, whereas if it is negative then the value of imports was higher than that of exports.

During the last two decades, the value of U.S. pork industry net exports has for the most part increased as illustrated in the accompanying chart. Of note, the net export chart utilizes essentially the same categories as identified above with the exception of an "other" category which combines the three categories: 1) sausage casing and variety meats; 2) pork lards, oils and other fats; and 3) hog and pork skins.

In 1988, the value of U.S. net hog/pork exports was negative \$1.8 million, by 1992 the value of net exports turned positive due to growing foreign demand for U.S. pork. In 2008, the U.S. net export value of the pork/hogs complex was around \$3.8 billion versus \$1.7 billion in 2007, primarily due to a dramatic year-to-year increase in the export value of pork, sausage, and other items along with a slight yearly decline in the value of live hog, pork, and other product imports. Overall, the industry net export value has been at or above \$1 billion since 2005. On a category basis, the U.S. has traditionally imported more value than was exported in only one category, live hogs and it has been both pork and sausages and other items that have provided a net flow of dollars into the U.S. industry.

A Concluding Comment

There are a number of countries that purchase products acquired from U.S. hogs and many countries that sell pork to the U.S. One key country (Canada) sells pigs and hogs to the U.S. and in return purchases pork and related items, while other countries have increased purchases as a result of market and production issues (Asian nations). Aggregating hogs, pork and byproduct trade across countries in dollar terms masks the complex interrelationships involved but does present a rather useful broad picture of U.S. trade. In this broad standpoint on trade, the value of U.S. hog and pig imports is more than compensated by U.S. exports of pork, sausage and other items.

