



Analysis & Comments

Livestock Marketing Information Center

State Extension Services in Cooperation with USDA

March 1, 2010
Letter #11

www.lmic.info

International Trade: Export versus Import Values in the U.S. Cattle/Beef, Hog/Pork, and Dairy Complexes¹

International trade continues to be a frequently discussed topic and in recent years its role in influencing U.S. livestock, meat and dairy prices has become more important. Overall, trade between countries is the result of complex economic, political and historical relationships; of course, the economic basis for the benefits to international trade is comparative advantage.

Any interpretations on the benefits of international trade depend on where the boundaries of the analysis are defined. If the boundaries of an analysis are placed at the world level and include both consumers and producers of all products, then the net economic benefits are rather apparent in economic theory. From a U.S. perspective, even without accounting for the potential benefits (or costs) of international beef, pork or dairy product trade to consumers, any benefits to international trade depend on how the sector is defined. An example would be whether just the numbers of head of feeder pigs and slaughter hogs that flow across one international border are measured in terms of benefits/costs or whether live hogs and all the products collected from hogs are also considered.

In 2008, the U.S. cattle/beef industry finally returned to being a net exporter on a dollar basis and maintained its status in 2009; that is, regarding cattle/beef products, the export value was greater than the value of imports. Despite the impacts from the global economic recession in 2009, the net value of cattle/beef exports exceeded imports by just over \$500 million last year. Since 1992, on a dollar value basis, U.S. exports of pork items have remained well above the total value of imports. Despite a decline in the value of exports during calendar year 2009, the value of U.S. net pork exports in 2009 were the second highest on record at \$3.3 billion. Historically, the U.S. on a total dollar basis consistently imported more dairy items and dairy cattle than it exported, but in 2007 and again in 2008 the U.S. dairy industry changed from a net importer to a net exporter status. However in 2009, the U.S. dairy industry reverted back to a net importer as the value of imports slightly exceeded that of exports with the net value of exports a negative \$47 million.

¹ All included and additional charts can be accessed on the LMIC website (www.lmic.info) in the Members Only section.

Background

This analysis takes a rather broad, but often overlooked simple value approach between the U.S. and the rest of the world for cattle and beef product trade, hog and pork product trade and dairy product and dairy cattle trade. This estimation is based on the summation of the dollar values of both U.S. exports and imports as identified in the trade statistical summaries published by USDA's Foreign Agriculture Service.

All categories of live animals imported and exported (feeder, slaughter, and breeding stock) are included in this analysis. Identifying international trade of beef industry products is more challenging than for cattle, as the major category tends to be beef, however, many other products are sold to foreign markets including hides, internal organs, tallow, and tongues. Likewise, classifying hog products is rather difficult due to a wide variety 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. Identifying and classifying dairy products is somewhat challenging due to the large number of items that are derived and/or directly obtained from milk. Unlike meat products, dairy products differ in regards to product types, as milk, milk creams and milk powder vary on fat contents along with product form (e.g. dried or fluid), while the type of cheese products can be fairly complex (e.g. fresh, grated, powdered).

Internationally traded items are categorized by standardized commodity category codes defined in the Harmonized Tariff System (HTS). There are several levels of codes utilized and those codes are often updated over time to reflect actual products being traded internationally. In the U.S., export codes referred to as Schedule B codes, are administered by the U.S. Census Bureau, whereas the U.S. International Trade Commission administers import codes. Of all the types of trade codes utilized, the most detailed codes are the 10-digit level HTS codes. Determining cattle, hog and dairy products is tricky due to the number of products involved and a number of beef and veal products that are exported and imported can include beef as well as some pork and/or poultry (likewise with some pork products as well) depending on the HTS code classification. To summarize the value of U.S. beef, pork and dairy exports and imports HTS trade classification codes for beef/beef byproducts, pork/pork byproducts and dairy products were reviewed and combined into categories (see Figures below).

Net Value for Cattle/Beef Trade

For more than two decades (1982 through 2008), the common trend has been that the dollar value of U.S. beef industry exports have gradually increased. During the 1980's the U.S. total export values were below \$3 billion with the key component in value terms being hides and skins. By 2003, U.S. exports of all items amounted to just below \$6 billion and the largest dollar component was beef and veal (over \$3 billion). In 2004, due to BSE related trade restrictions, the total dollar value of U.S. beef industry exports declined to just \$2.6 billion with hides and skins surpassing beef and veal for the largest component. In fact, the value of beef and veal

exports plummeted to about \$550 million, a value not seen since the early 1980's. Since then, the value of beef and veal exports has tended to increase and by 2006 it had recaptured its place as the largest contributor to total export value. In 2009, the export value totaled \$4.4 billion versus \$5.7 billion in 2008, as the global economic contraction weighed heavily on export demand. Last year, beef and veal exports accounted for nearly two-thirds of the total value at \$2.6 billion, followed by hides at skins at \$798 million. Export dollar values for all the categories decreased from 2008 to 2009 due to softer demand and unfavorable trade situations for U.S. beef and beef products. Of note, the 2009 export value for hides and skins was the lowest since the early 1980's as worldwide consumer demand for leather goods suffered.

Total U.S. cattle/beef import values which were less than \$2 billion during the early 1980's then tended to increase reaching over \$5 billion in 2007, but declined to \$3.9 billion in 2009 as import values for all trade categories were below the prior year. In 2002 live cattle imports totaled over \$1 billion, but due to BSE restrictions the total value declined to just over \$500 million in 2004. By 2007 the value of live cattle imports reached a record of just under \$1.9 billion, but fell to \$1.3 billion in 2009 mostly the result of a decline in the number of cattle imported. The value of beef and veal imports was \$2.5 billion in 2009; down slightly from the \$2.8 billion in 2008 and the smallest import value posted since 2003 (the record was in 2005 at \$3.4 billion). The decline in the value of imported beef can be attributed to several factors including large domestic cow slaughter in 2009. Beef and veal comprised the largest share of total import value, followed by live cattle.

Net export value is essentially the dollar difference between total exports and imports. For the U.S., if net exports were positive then the dollar value of exports was greater than that of imports. On a value basis, the U.S. maintained its status as a cattle/beef product net exporter in 2009, a situation that was regained finally in 2008 following BSE related trade problems that began in late 2003. When all categories are accounted for, after posting a net export value of positive \$2.3 billion in 2003, and a negative net export value of nearly \$200 million in 2007, net export value was positive by just over \$500 million in 2009. Although the net export value of beef and veal products in 2009 was less than in 2008 and pre-BSE years, the ability to remain a net exporter on a dollar value given the global economic situation of 2009, reflects rather well on the U.S. cattle and beef industry.

Net Value for Hog/Pork Trade

Since the mid-1980's, the total dollar value of U.S. pork/hog industry exports has grown dramatically. In 1990, the value of U.S. pork industry exports totaled about \$540 million, by 2000 that value had grown to nearly \$1.7 billion, and in 2008 surged to a record \$5.3 billion. In 2009, the dollar value of U.S. pork exports declined to \$4.6 billion, a yearly loss of about \$705 million, but still the second largest ever. The decline in export value can be attributed to a number of economic factors as well as lingering pressure on foreign demand from the discovery of H1N1. On a value basis, pork and sausage have been the key category behind the increase in U.S. pork industry exports. Last year, the value of U.S. pork and sausage exports was \$3.61 billion and represented nearly 80 percent of the total export value. The value of variety meats

as well as lards, oils, and other pork fats have increased dramatically in the last few years. In 2009, the value of casings and variety meats totaled \$722.3 million, slightly less than the record set in 2008 (\$768 million), while the value of lards, oils and other fats was nearly triple that of 1989. Of note, live hogs exports comprised less than a half of one percent of the total export value last year.

In 1993, the dollar value of U.S. pork/hog imports began a growth trend. In 1993, total U.S. pork industry imports were estimated at \$613 million, by 2004 that value peaked at just over \$1.76 billion and in 2009 the total import value was just under \$1.3 billion. The value of imports last year was down from about \$1.5 billion in 2008 due to a number of factors, including a decline in the number of Canadian hogs and exchange rates. Since peaking in 2004 at just over \$1.1 billion, the value of pork and sausage imports has moderately declined with the 2009 value at just \$807 million, about \$51 million less than 2008's, but still accounted for over two-thirds of the total value of U.S. pork/hog imports. The value of U.S. live hog imports have steadily grown since the mid-1990's, peaking in 2007 at over \$650 million, however a decline in the Canadian swine herd, Country of Origin Labeling, etc., resulted in a decline in the value to \$295 million in 2009, the lowest since 2000. Despite the economic conditions of 2009, the import value of pork variety meats and lards grew to record highs in 2009, at \$172 million and \$9.2 million respectively, with each capturing a larger share of the total hog/pork import value.

Over the last two decades, the value of U.S. pork industry net exports has increased as demonstrated in the accompanying chart.² In 1988, the value of U.S. net hog/pork exports was a negative \$1.8 million, by 1992 the situation had reversed and value of net exports turned positive due to rising foreign demand for U.S. pork. In 2009, the U.S. net export value of the pork/hogs complex was around \$3.3 billion versus the record of about \$3.8 billion in 2008, mostly due to a year-to-year decline in the export values of pork and pork products. Despite an annual decline, the 2009 calendar year pork/hog industry net export value was the second highest ever.

Net Value for Dairy Products Trade

Since the early 1990's, the value of U.S. dairy product exports has gradually increased, supported by exports in the milk/cream/powder category. In 2004, dairy product export values surpassed \$900 million and then climbed to over one billion dollars by 2005. In 2008, the estimated value of U.S. dairy exports was nearly \$3 billion, but in 2009, the export value declined to just under \$1.6 billion, the result of significant declines in the milk/cream/powder and butter categories. The large year-to-year change can in part be attributed to exchange rates, rebounding production in Oceania, and generally softer demand caused by worldwide economic conditions. The export value for milk/cream/powder at \$635.2 million was 60 percent less than in 2008, but in line with pre-2008 values. Nonetheless, it still accounted for largest share (40

² The net export chart utilizes essentially the same categories as identified in the text 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.

percent) of the total dairy export value in 2009, followed by cheese, whey, natural milk items, butter and live cattle. Of note, the estimated value of live dairy cattle exports in 2009 was \$33.1 million, down about \$13 million from 2008, but was still above pre-BSE levels.

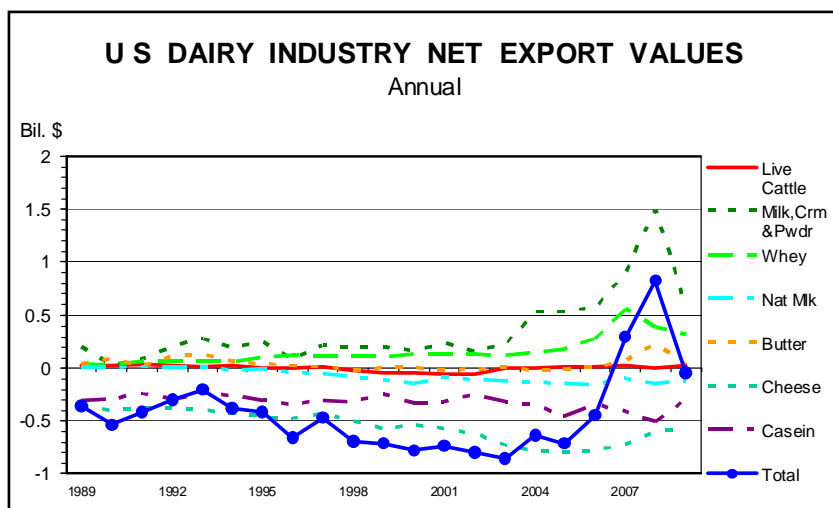
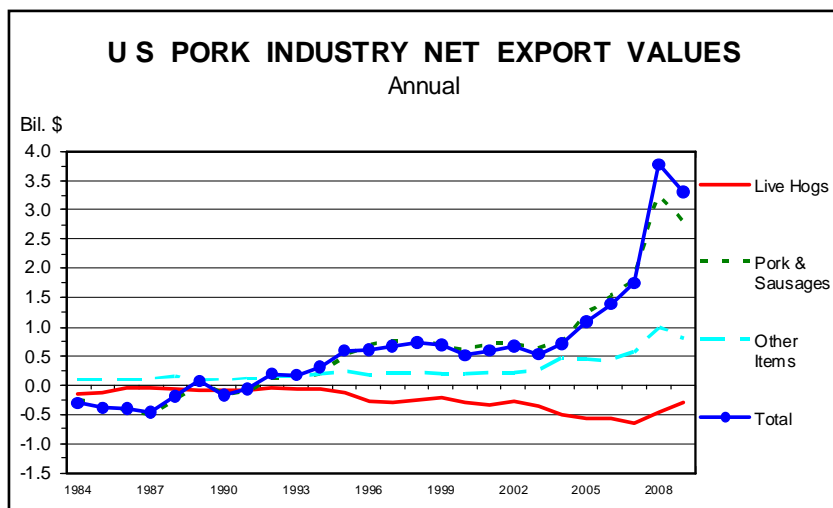
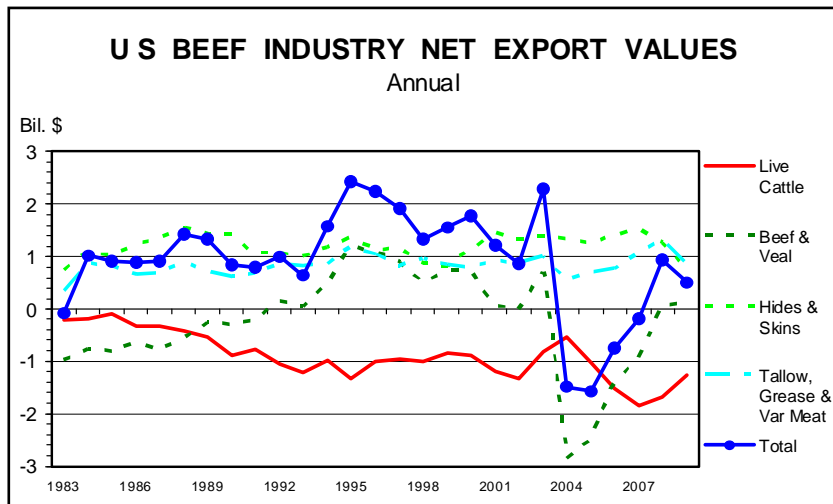
For nearly two decades (1989 through 2008), the total dollar value of U.S. dairy/dairy cattle industry imports grew rather modestly, with the import values for cheese being the key driver among the categories. In 1990, the total value of U.S. dairy imports was estimated at over \$780 million. By 2000, the import value of U.S. dairy products surpassed the one billion dollar level and in 2008 import values topped out at over \$2.1 billion as all items increased in value. However, in 2009, the total value of U.S. dairy imports dropped to \$1.6 billion with cheese imports accounting for nearly \$1.0 billion followed by casein, natural milk items, and milk/cream/powder. Among the dairy product categories, the import value for milk/cream/powder posted the only increase from 2008 to 2009, while the remaining categories had notable year-to-year declines. In fact, for the year, the import value for cheese lost about \$164 million in 2009 and was lowest in the last five years. The value of dairy cattle imports declined dramatically in 2009 falling from \$54 million in 2008 to just under \$7 million in 2009.

Historically, the U.S. has been a net importer of dairy products, however, in 2007 the U.S. dairy industry became a net exporter for the first time and continued to export more value of dairy products than imported in 2008 (see accompanying chart). In 2003, the value of U.S. net dairy product and cattle exports posted the largest negative in terms of net export status (negative over \$853 million), but then in 2008 the U.S. dairy industry net exports reached an estimated \$832 million. However in 2009, the value of U.S. dairy products/cattle imports slightly exceeded the value of dairy products/cattle exports and the U.S. dairy industry returned to a net importer status. Last year, the value of net exports was a negative \$47 million, as the import values of cheese, casein, and natural milk items were greater than the export values for those items. Of note, U.S. dairy remained a net exporter of milk/cream/powder, whey, butter, as well as live cattle in 2009.

Some Comments

A number of countries are involved with purchasing products from the U.S. livestock and dairy industries, while many countries sell their livestock, meat products and dairy products to the U.S. In addition, some countries will purchase products from the U.S. and sell products in the same general category back to the U.S. (including Canada and Mexico). Aggregating live animals and meat/dairy products trade across countries in dollar terms understates the complex interrelationships involved, but does provide insight into the broad picture of international trade.

Overall, 2009 was a difficult year for the cattle/beef, hog/pork, and dairy complexes as global economic contraction had a significant impact on international trade. Although U.S. net export values declined across all three industries evaluated here in 2009, the loss in values could have been much more severe and actually held-up rather well given the all the economic difficulties. Looking ahead, how quickly the global economy rebounds will be a key factor to the overall dollar value of U.S. exports in 2010.



Data Source: USDA-Foreign Agricultural Service; Analysis by LMIC