



ANALYSIS AND COMMENTS

Livestock Marketing Information Center

State Extension Services in Cooperation with USDA

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INTERNATIONAL TRADE: EXPORT VERSUS IMPORT VALUES IN THE U.S. DAIRY COMPLEX¹

International trade as it relates to the U.S. dairy industry has not been a hot topic of discussion historically. However, a variety of factors recently have made the role of international trade of greater importance as exports of dairy products have increased significantly. In general, 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. Last year, the U.S. dairy industry set new benchmarks regarding key aspects of international trade.

Interpretations of the benefits of international trade rely on where the limits of the analysis are determined. If the limits are set at the world level and include both consumers and producers of all products, then the net economic benefits are rather obvious in economic theory. From a U.S. perspective, even without taking into consideration the possible benefits (or costs) of international dairy trade to consumers, any benefits to international trade depend on how extensive the area is defined. An example would be whether just all milk-based products produced (i.e. cheese, whey) that flow between the U.S. and other countries are measured in terms of benefits/costs of whether all milk-based products and live dairy cattle are considered.

Since 1989, the U.S. on a total dollar basis consistently imported more dairy items/dairy cattle than it exported. However, last year (2007) the U.S. dairy industry exported more dollars worth of dairy products and cattle than was imported, thus switching from a net importer to a net exporter which can be credited to a variety of changes that have occurred in the U.S. (i.e. policy) and internationally.

Background

This analysis takes a relatively broad, but often over looked simple value approach to dairy product and dairy cattle trade between the U.S. and the rest of the world. This analysis is based on the summation of the dollar values of both U.S. exports and imports as identified in the trade statistical summaries. 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 altered over time to reflect 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.

¹ This Analysis and Comments was reviewed by Dr. David Anderson, Associate Professor and Livestock and Food Products Marketing Economist at Texas A&M University

All types of dairy products imported and exported are considered as well as live dairy cattle (breeding stock and slaughter cattle). Identifying dairy products is fairly difficult due to the vast number of products that are derived and/or directly sourced from milk. Unlike meat products that can include pork, beef, and poultry products depending on the HTS code classification; dairy products differ in terms of product types. For example, milk, milk creams and milk powder vary on fat contents as well as product form (i.e. dried or fluid), whey products have similar issues while the type of cheese products can be quite complex (i.e. fresh, grated, powdered).

To efficiently capture the quantity and value of U.S. dairy exports and imports, HTS 6-digit level codes for the major categories for dairy products were reviewed and aggregated into the following categories: 1) Milk, Cream, and Powder; 2) Whey; 3) Natural Milk items; 4) Butter; 5) Cheese; and 6) Live Cattle (includes breeding stock and slaughter cattle). This is a varied list and the best method to accurately capture the value of the U.S. dairy product and dairy cattle trade industry was to sum-up the total number across categories and across countries on a dollar value basis. Export and import values for each trade category were derived from the values of 25 different 6-digit level HTS codes. Of note, 10-digit level HTS codes which provide more detail of those items in the lower numbered codes were not incorporated as there are more than 100 different 10-digit level codes reported in the HTS code database.

U.S. Exports and Imports

For nearly two decades (1989 through 2007), the total dollar value of U.S. dairy/dairy cattle industry imports grew steadily as indicated in the accompanying charts. Over the years, the import values for the major categories has continued to rise, cheese being the most notable as U.S. consumers tend to favor imported cheeses quite heavily. In 1989, the total value of U.S. dairy imports was estimated at over \$400 million. Imports of cheese accounted for the largest share of import value (over 90 percent) followed by import categories of: 1) milk/cream/powder products; and 2) live dairy cattle. By 2001, the value of U.S. dairy imports surpassed the \$1 billion level mostly due to imports of cheese and natural milk items. In 2007, the total value of U.S. dairy imports was over \$1.4 billion with cheese imports accounting for \$1.1 billion followed by natural milk and milk/cream/powder. The import value of dairy cattle was estimated at just under \$9 million in 1989 and peaked at about \$80 million in 2002 before falling to virtually zero in 2003 when BSE restrictions on dairy cattle imports from Canada were instituted; those restrictions were largely removed during 2007.

In 1989, the total value of U.S. dairy exports was over \$360 million driven by exports in the milk/cream/powder category. Since then, the value of dairy product exports has steadily risen despite some modest year-to-year variation over the near two-decade period. For most of the 1990's and early 2000's, dairy product export values floated in the \$400 to \$500 million range until 2004 when export values exceeded \$900 million and further increased to over one billion dollars in 2005 and the years following. In 2007, the estimated value of U.S. dairy exports was \$2.1 billion as all major categories posted record export values, with the exception of live cattle. The export value for milk/cream/powder contributed nearly half to the total dairy export value in 2007, followed closely by whey, cheese, and natural milk. Export values for dairy cattle in 1991 were over \$50 million but declined since with the estimated 2007 value at \$23 million.

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. standpoint, 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. For nearly two decades, the value of U.S. dairy industry net exports has been negative, in other words the U.S. has traditionally been a net importer of dairy products as illustrated in the accompanying chart. However, in 2007 the U.S. exported more

value of dairy products than imported and for the first time, the U.S. dairy industry became a net exporter.

In 1989, the value of U.S. net dairy products and cattle exports was a negative \$46 million, as the import values of cheese and natural milk exceeded the value of all exported dairy products. In 2002, for the period evaluated, the U.S. posted largest negative in terms of net export status (negative \$540 million on the accompanying chart) with negative net export values reported for all categories except for whey and milk/cream/powder. Following 2002, the value of exports began to increase relative to import values, and the negative net export values of dairy products and cattle began to lessen due to increased export values of milk/cream/powder and whey. By 2007, the U.S. dairy industry net exports were estimated at \$710 million, a first for the industry. Over the five-year period (2002 to 2007) the U.S. dairy industry gained over \$1.2 billion in export value mainly due to increased values of milk/cream/powder and whey during this period. On a category basis, the U.S. has historically exported more value than imported in two categories: milk/cream/powder and whey while the imports of cheese and natural milk items have always exceeded the value exported.

A Concluding Comment

Consumers in the U.S. purchase a number of dairy products from other countries such as different varieties of cheese while consumers in other countries have bought many dairy product items from U.S. like milk. Recent market and production factors have resulted in increased sales of U.S. dairy products in foreign markets. Factors involved include a highly efficient production and processing industry in the U.S., increased demand by foreign markets, and the declining value of the U.S. dollar relative to other currencies. U.S. imports of dairy products also have grown, but at a much slower pace than exports in recent years. Those trends are important and if they continue will have a significant influence on U.S. milk prices received by producers. Putting the complex economic and political interrelationships involved in international trade into a simple context can easily be misleading, but we will do it anyway. With about 9.2 million cows in the U.S. dairy herds in 2007 producing an average of 20,300 gallons of milk, the 2007 net value of exported over imported dairy industry products was over \$77.00 per cow or 0.3 cents per gallon of milk produced, which is quite impressive.

