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 COMPLEX

International trade as it pertains to the U.S. dairy industry historically has not been considered a very important topic of discussion. However, an assortment of factors over the last few years have made the role of international trade to the industry of greater significance as exports of dairy products have increased considerably. Overall, trade between countries is the product of complex economic, political and historical relationships, but the primary economic basis for the benefits to international trade is comparative advantage. In 2007, the U.S. dairy industry set new standards regarding key aspects of international trade and further surpassed those benchmarks in 2008.

Understandings of the benefits of international trade are contingent on the scope of the analysis. If the boundaries of an analysis are set at the world level and include both consumers and producers of all products, then the net economic benefits are rather evident in economic theory. From a U.S. perspective, even without taking into consideration the potential benefits (or costs) of international dairy trade to consumers, any benefits to international trade depend on how broad the area is determined. An example would be whether just milk-based products produced (i.e. cheese, whey) that flow between the U.S. and other countries are measured or whether all milk-based products and live dairy cattle are taken into account.

From 1989 well into the current decade, the U.S. on a total dollar basis consistently imported more dairy items and dairy cattle than it exported. However, in 2007 and again in 2008 the U.S. dairy industry exported more dollars worth of dairy products and cattle than was imported, thus changing from a net importer to a net exporter status. That change was due to a number of economic and production factors including rather favorable exchange rates.

Background

This analysis assumes a relatively broad, but often overlooked straightforward value approach to dairy product and dairy cattle trade between the U.S. and the rest of the world. This analysis is derived on the summation of the dollar values of both U.S. exports and imports as indicated in the trade statistical summaries. Internationally traded items are categorized by standardized commodity category codes defined in the Harmonized Tariff System (HTS). There are several levels of codes that exist and those codes are amended 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. Other HTS code summary categories (e.g. 6-digit) are an aggregation of more detailed 10-digit codes.

All types of imported and exported dairy products as well as live dairy cattle (breeding stock and slaughter cattle) are considered in this analysis. Identifying dairy products is rather challenging due to the multitude of products that are derived and/or directly obtained from milk. Unlike meat products that may include pork, beef, and poultry products depending on the HTS code classification; dairy products differ in regards to product types. For example, milk, milk creams and milk powder vary on fat contents along with 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).

In order to effectively 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; 6) Casein and 7) Live Cattle (includes breeding stock and slaughter cattle). This is a diverse 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 26 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 used in this analysis as there are more than 100 different dairy product 10-digit level codes reported in the HTS code database.

U.S. Exports and Imports

For nearly two decades (1989 through 2008), the total dollar value of U.S. dairy/dairy cattle industry imports grew steadily as shown in the accompanying charts. Over the years, the import values for the key categories have continued to rise, with cheese being the most prominent category. In 1990, the total value of U.S. dairy imports was estimated at over $780 million. Among the categories, cheese imports accounted for the greatest share of import value (over 50 percent), followed closely by casein (just under 40 percent), then live dairy cattle and milk/cream/powder products. By 1998, the value of U.S. dairy imports exceeded the $1.1 billion mark mostly due to an increase in import values of cheese, casein, and natural milk products. In 2008, the total value of U.S. dairy imports jumped to over $2.0 billion with cheese imports accounting for nearly $1.2 billion followed by casein, natural milk and milk/cream/powder. In fact, import values for cheese, casein, and natural milk items set new records in 2008. Of note, after the removal of BSE restrictions on dairy cattle imports from Canada in 2007, the value of live dairy cattle in 2008 returned to a more normal level of $54 million, after falling virtually to zero in 2003.

In 1989, the total value of U.S. dairy exports was over $370 million supported by exports in the milk/cream/powder category. After declining slightly in 1990 and 1991, the value of dairy product exports gradually increased over the next decade. Until 2004, dairy product export values floated in the $400 to $500 million range but then export values exceeded $900 million in 2004 and continued to rise to over one billion dollars in 2005 and the years thereafter. In 2007, the estimated value of U.S. dairy exports exceeded the $2 billion level driven by significant gains in all the key product categories. In 2008, the value of U.S. dairy exports was just under the $3 billion mark due to record export values in all dairy product categories, except for live dairy cattle. The large year-to-year gain can in part be attributed to rather favorable exchange rates in 2008. The export values for milk/cream/powder accounted for over half of the total dairy export value in 2008, followed by cheese, whey, butter, natural milk items, and live cattle. Of note, export values for dairy cattle in 1991 were over $50 million, but declined since then to near zero in 2004 due to BSE restrictions on live dairy cattle exports. By 2008, the estimated value of live dairy cattle exports had returned to pre-BSE levels at $46.3 million.

Value of Net Exports

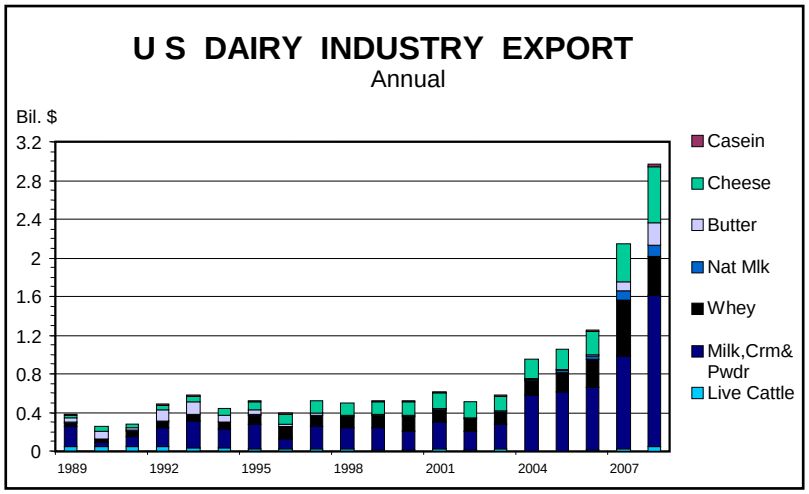
Basically, the net export value is merely the dollar value difference between exports and imports in a certain year. From the U.S. standpoint, if net exports are positive then the dollar value of exports was greater than that of imports whereas if it is negative then the value of imports was higher than that of exports. For nearly two decades, the value of U.S. dairy industry net exports was negative, in other words the U.S. has historically been a net importer of dairy products as depicted in the accompanying chart. 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 as well.

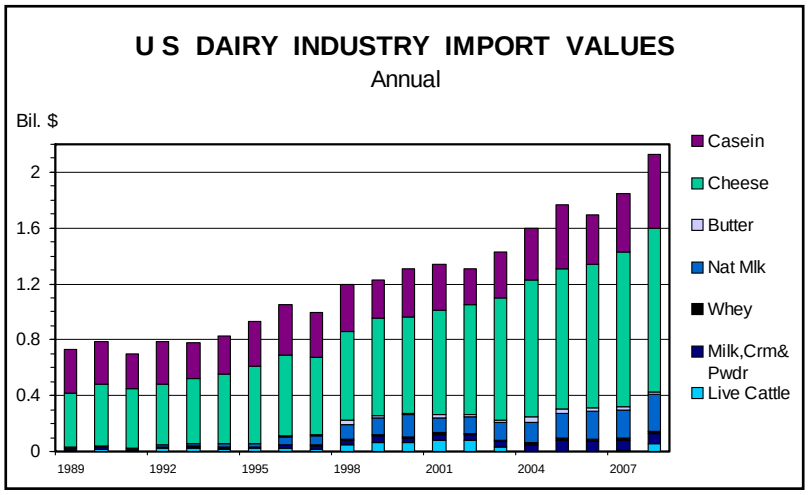
In 1990, the value of U.S. net dairy products and cattle exports was a negative $529 million, as the import values of cheese and casein surpassed the value of all exported dairy products. In 2003, for the period evaluated, the U.S. posted the largest negative in terms of net export status (negative over $853 million on the accompanying chart) with negative net export values reported for all categories except for whey and milk/cream/powder. By 2007, the U.S. dairy industry achieved net exporter status and in 2008, U.S. dairy industry net exports were estimated at over $830 million. Of note, following 2002 the value of exports began to increase relative to import values for milk/cream/powder and whey while the imports of cheese, casein, and natural milk items have always exceeded the value exported.

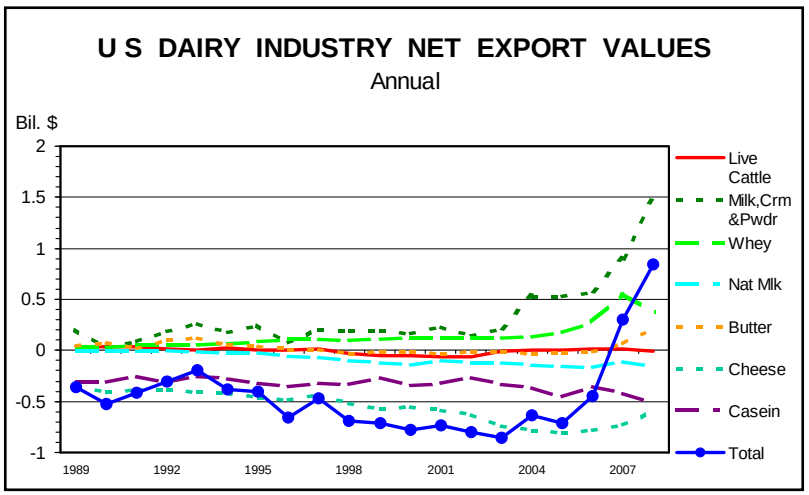
A Concluding Comment

Consumers in the U.S. purchase a multitude of dairy products from other countries such as different types of cheese, while consumers in other countries have bought many dairy product items from U.S. such as milk and whey. A variety of market, production, and economic factors resulted in increased sales of U.S. dairy products in international markets in 2008. Such factors included a decline in the value of the U.S. dollar relative to other currencies, as well as an extremely efficient production and processing industry in the U.S. While U.S. imports of dairy products have also grown, it has been at a much slower rate than exports in recent years.

Although this analysis assumes a relatively simple approach to the complex economic and political interrelationships involved in international trade, it provides useful information into the value of exports and imports to the U.S. dairy industry. Looking ahead into 2009, the global economic contraction will impact international trade across all sectors, thus for the U.S. dairy industry the trends of the past two years may not continue in 2009.


U S DAIRY INDUSTRY EXPORT
Annual
Bil. $
3.2
2.8
2.4
2
1.6
1.2
0.8
0.4
0
1989
1992
1995
1998
2001
2004
2007
Casein
Cheese
Butter
Nat Mlk
Whey
Milk,Crm& Pwdr
Live Cattle


U S DAIRY INDUSTRY IMPORT VALUES
Annual
Bil. $
2
1.6
1.2
0.8
0.4
0
1989
1992
1995
1998
2001
2004
2007
Casein
Cheese
Butter
Nat Mlk
Whey
Milk,Crm& Pwdr
Live Cattle


U S DAIRY INDUSTRY NET EXPORT VALUES
Annual
Bil. $
2
1.5
1
0.5
0
-0.5
-1
1989
1992
1995
1998
2001
2004
2007
Live Cattle
Milk,Crm &Pwdr
Whey
Nat Mlk
Butter
Cheese
Casein
Total