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Milk Protein Imports: How Much Impact and What Can Be Done?

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Agricultural trade policy is in the news again, this time focused on the dairy industry. Just over a year ago, the US International Trade Commission received a request from the Senate Finance Committee to conduct a study of the “competitiveness” of US milk proteins compared to imports of various milk protein products. This request was made under Section 332 of the Tariff Act of 1930, and falls under the heading of “general fact finding investigations.” These investigations are referred to as “Section 332” investigations, and this particular one goes by the number 332-453. The results of the study were delivered to the Senate Finance Committee in mid-May, and released to the general public shortly after that.

The request came about due to a dramatic increase in imports of milk protein products during the late 1990s. Of particular concern was the dramatic growth in imports of products called “milk protein concentrates,” or MPCs, which increased more than 600% from 1995 to 2000. At their peak in 2000, MPCs accounted for a bit more than 1% of the protein from milk produced in the US. This rapid growth, and low milk prices in 2000, led to a suspicion that MPC imports were causing the fall in milk prices.

Why the big increase in MPC imports? MPCs actually consist of a broad range of products having a protein content between 40 and 90%. They are typically made using

relatively new ultrafiltration technology, in which skim milk is passed through one or more filters to separate a portion of the lactose and minerals in milk from the proteins, and then dried to a powdered form. MPCs have a wide range of potential uses in the food industry, including use in dairy product manufacture. For example, yields of cheese increase when the milk in the cheese vat is “standardized” to a certain ratio of fat-to-protein. Typically, this involves increasing the protein content of the milk, and nonfat dry milk is commonly used for this purpose. Because MPCs have less of the components that end up in whey (the lactose and minerals) than nonfat dry milk, interest in their use to make hard and soft cheeses has grown. In fact, a number of ultrafiltration plants that make ultrafiltered skim milk (which can be dried to make MPCs) have come online in the US in recent years, and more are planned. The ITC study found that more than two-thirds of MPC imports were high protein (greater than 70% protein), and the majority of these were used in the manufacture of processed cheese. More than 60% of the lower protein (less than 70% protein) MPCs were used in other dairy foods (such as cultured products or frozen desserts).

With a majority of MPC imports ending up in dairy products, what has been the impact of MPC imports on farm prices for milk? There has been a great deal of discussion about this issue during the past three years. Most of the estimates have suggested that the price impacts are relatively small as a percentage of the milk price. However, even a small percentage decrease, particularly in a low milk price year can be important to dairy farmers. Assessing the impact of MPC imports is complicated by two key factors. First, milk is composed of fat, protein, and other solids, so each of these components needs to be taken into account when figuring out how the protein part affects milk prices. Second, government dairy policies influence prices for these components, and how they interact with each other. Under Federal Milk Marketing Orders (FMMOs), wholesale prices for cheese, butter, nonfat dry milk, and dry whey are used to establish milk prices. The Dairy Price Support Program (DPSP) has been purchasing a good deal of nonfat dry milk in recent years, that is, it has been buying a good deal of milk protein. Assessment of the net outcome of the imports with government policy requires a fairly sophisticated analysis with an economic simulation model.

Using such a model, we determined that the impact of MPCs on US dairy prices in 2001 was about \$0.08 per 100 lbs. of milk, or about 0.5%. This is a relatively small impact, but we also noted that the impacts on price will be larger in regions where milk is used primarily for bottling or to make cheese. If this impact is considered large enough to merit some change to trade or dairy policy, what can be done and what difference would it make? There are two basic options, and legislation for both has been introduced in Congress. First, the government can change trade policy to restrict imports of a variety of milk protein products (H. 1160 and S. 560). This will probably require us to provide compensation to countries affected by the new restrictions because we committed ourselves not to place additional restrictions on trade when we joined the WTO. Compensation in this case means allowing additional imports of some other product equivalent to the value of the trade we restricted. Second, we can subsidize the domestic production of milk protein products, so that they are more competitive with imports (H. 4223). This would increase the demand for milk to make these products, and reduce the amount imported.

Using the same simulation model, we examined these two options. It turns out that in a relatively high milk price year like 2001, restricting the imports of milk proteins and compensating with an increase in cheese imports results in a lower farm milk price, a decrease of \$0.13 per 100 lbs of milk. Allowing the additional cheese imports is the main reason for this fall in milk prices. In a relatively low milk price year, like 2002, restricting imports does increase farm milk prices, by about \$0.18 per 100 lbs. Given these offsetting effects, over the course of a few years it is likely that dairy farmers won't be much better off under these restrictions than if the government did not change trade policy. Providing subsidies to manufacturers of milk protein products increases average US milk prices by \$0.40 per 100 lbs. (2.7%) and decreases milk protein imports, but costs the government about \$192 million. Thus, the basic policy choices seem to be between one that doesn't increase average milk prices much over the long term, and one that does increase milk prices but at additional government expense. Debate on the legislation before Congress is likely to intensify in the coming months, in the wake of the release of the ITC report and the run-up to the fall elections.

For more information see Cornell Program on Dairy Markets and Policy website at:
<http://www.cpdmp.cornell.edu/>.

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