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Should We Consider Government Supply Management Dairy Programs?

BACKGROUND

During times of low milk prices some may consider it to be in the best collective interest of dairy producers to reduce milk production to boost prices quickly. However, even in the absence of coordinated collective action, periods of low milk prices are generally a temporary phenomenon. Through herd culling and the loss of farm operations, milk supply adjusts to return milk prices to higher levels, as evidenced by historical milk price and income-over-feed-cost margin patterns. A similar process occurs when milk prices are high; prices generally decline as dairy cows are added to the herd and milk production increases to meet the additional demand.

However, in a low price environment the downside of relying exclusively on markets to govern supply and demand corrections is that the recovery may be delayed. In economic terms, as long as revenue from milk production covers at least variable costs, dairy farms will continue to produce milk in the short term and forgo exiting the industry or culling cows. Following the milk price decline experienced since 2015, and to expedite milk price recovery in future low price environments, there is renewed interest in creating a U.S. milk supply management style program in the 2018 Farm Bill.

Historically, there have been several programs designed to manage the U.S. milk supply, including but not limited to USDA base-excess plans, USDA's milk diversion program, the Cooperatives Working Together (CWT) herd buyout program and, in the 2014 Farm Bill, a proposed Dairy Market Stabilization Program (DMSP). Descriptions of the framework and market results of these programs follow.

Base-Excess Plans

Base-excess programs are designed to provide dairy farmers an economic incentive to adjust milk production to coincide with seasonal consumption patterns. The provisions of a base-excess plan allow producers to establish a base level of milk production during the short supply months, then during the flush season milk producers are paid a higher price for milk marketed up to their assigned production base. Milk marketed in excess of this base is sold at a discount with the desired effect of reducing the financial incentives to oversupply the market during the flush season.

Across the U.S., base-excess style programs are in effect today and are administered by dairy cooperatives; however, the federal government has also administered base-excess programs through Federal Milk Marketing Orders. Programs in operation today are designed to address manufacturing capacity constraints and to allow dairy cooperatives the opportunity to effectively market only the volume of milk demanded by their customers.

Over the last decade, U.S. dairy farmers have increased output by 32 billion pounds of milk. During the spring flush of 2015 and 2016, milk production exceeded processing capacity in the Great Lakes region. As a result, USDA data reveals that tens of millions of pounds of milk each month were sold at a steep discount, used as animal feed, or dumped. Through revenue sharing pools and price re-blending, the lower price received for this milk was shared among a larger set of dairy farmers—effectively lowering the farm-gate milk price for these producers. The presence of a

national or regional base-excess plan would put the lower price burden only on those producers marketing in excess of their production base.

The difficulty in operating a non-mandatory base-excess program is regional competition among dairy cooperatives. In areas with high levels of competition, if a single cooperative attempted to employ a base-excess plan a dairy farmer member could seek membership with another cooperative. This would ultimately reduce the market share of the cooperative operating the base-excess plan. In addition, cooperatives without a base-excess plan could continue to produce milk beyond the processing capacity, creating additional downward price pressure. These competitive forces make base-excess plans difficult to administer without consensus among milk suppliers in a marketing region.

Milk Diversion Program

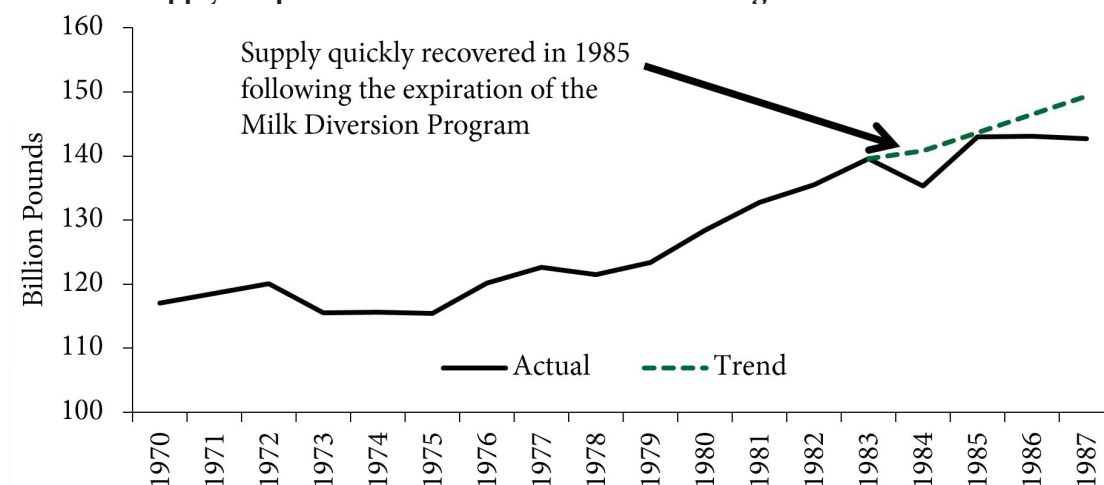
The Milk Diversion Program was a temporary program enacted by Congress in 1983 to address dairy surplus and provide a financial incentive for farmers to reduce milk production. The program was effective January 1984 – March 1985 and was funded by \$0.50 per hundredweight (cwt) farmer assessments.

Approximately 38,000 of the 200,000 commercial dairy operations in the U.S. (at that time) participated in the Milk Diversion Program. These participating dairies agreed to reduce their milk marketings relative to their historical base sales between 5 percent and 30 percent in exchange for \$10 for every cwt reduced.

The U.S. Government Accountability Office (GAO) estimates that \$955 million was paid to dairy farmers to reduce milk production by 3.71 billion to 4.11 billion pounds. Importantly, a critical flaw of the milk diversion program was that it paid farmers for reductions already made in 1983, prior to program implementation (i.e., milk base was established in 1981-1982, farmers reduced milk production in 1983, and in 1984 farmers were paid for every cwt of milk below the 1981-1982 base level). GAO estimates that a majority of the participating operations were those that already reduced milk production in 1983 and thus had a financial incentive to enroll in the program. Farmers who had increased milk production during 1983 did not have the same financial incentives to participate, estimates the GAO report.

Following the milk diversion program expiration in March 1985, the U.S. milk supply quickly recovered to 143.6 billion pounds, in line with trend milk production established prior to the diversion program implementation.

U.S. Milk Supply Response of the 1984 Milk Diversion Program



Dairy Market Stabilization Program

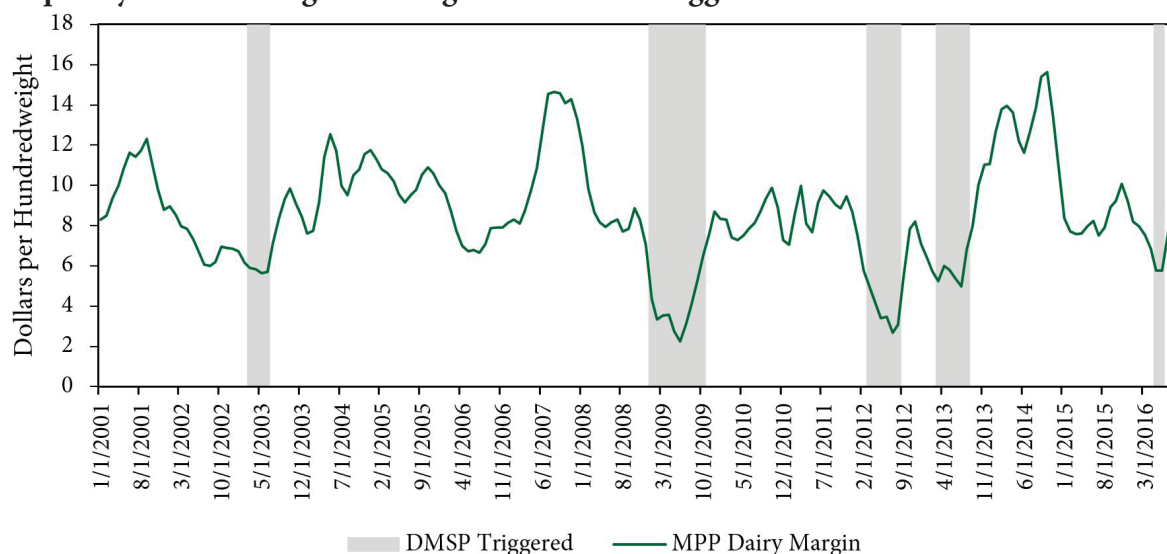
The Senate version of the 2014 Farm Bill included the Dairy Producer Margin Protection Program (MPP) and a coupled Dairy Market Stabilization Program (DMSP). Although participation in the MPP is voluntary, under the Senate proposal those enrolled in MPP would have been required to participate in the DMSP. The DMSP was a supply management-type program designed to enhance milk prices by levying a financial penalty on dairy farmers who did not reduce their milk supply when MPP margins fell below a specified threshold.

DMSP would have been triggered when the MPP margin fell below \$6.00 per cwt for two consecutive months or below \$4.00 per cwt for a single month. When low-margin thresholds were satisfied the stabilization program would have been effective beginning the first of the month following a margin calculation. Enrolled producers would have had two production base options: a 3-month rolling average production immediately preceding the announcement of the stabilization program, or the milk production from the same month in the preceding year.

DMSP penalties would have increased as announced MPP margins declined. For example, if MPP margins were lower than \$6.00 but higher than \$5.00 per cwt, payments to producers for milk deliveries could be reduced by as much as 6 percent. If MPP margins were lower than \$4.00 for the preceding month, payments to producers for milk deliveries could be reduced by as much as 8 percent. The percentage penalties differed based on MPP triggers, but did not exceed 8 percent of actual farm milk value. Farmers producing below their production base would not have been subject to a financial penalty.

Finally, for DMSP to be suspended, either MPP margins needed to recover to over \$6.00 for two consecutive months, or domestic prices of leading dairy commodities - cheddar cheese and nonfat dry milk - needed to be sufficiently higher than world (Oceania) prices.

Frequency of MPP Margins Falling Below DMSP Trigger Levels



In reviewing historical MPP margins, the DMSP program would have triggered during 2003, 2009, 2012, 2013, and in the spring of 2016 for two months (May and June), as illustrated in the above graph. During the most recent DMSP triggering event, payments to producers participating in MPP would have been reduced by as much as 6 percent. Based on the U.S. all-milk price in May and June of 2016, the DMSP penalty would have been as high as 88¢ per cwt. DMSP was not included in the final Farm Bill.

Implications on Global Competition and Trade

Supply and demand conditions in the global dairy economy effectively link U.S. and international dairy commodity prices. While the price levels are often different, it is the price response to shocks that is transmitted across international markets. Without increasing tariff rate quotas or increasing tariff rates on imports, the presence of a supply management system designed to enhance U.S. milk prices may have implications on the competitiveness of U.S. produced dairy products inside and outside of the U.S. (e.g. Canada's supply management system is protected by tariff rate quotas and high out-of-quota tariffs for select dairy products). For example, in the event that U.S. prices are higher than world prices, exporters would be able to take advantage of arbitrage opportunities and undercut U.S. dairy product prices, and additional headwinds would be experienced for U.S. exporters in foreign markets selling at prices above world levels.

The World Trade Organization considers supply management programs to be “amber-box” type (i.e., trade distorting) support, which would add to the U.S.'s total Aggregate Measurement of Support. These programs would be evaluated based on the price wedge created between U.S. and global dairy product prices.

ISSUE

Programs designed to reduce milk output during times of low milk prices or margins in order to expedite price recovery have regained support in portions of the U.S. following the milk price decline experienced since 2015 and milk dumping that occurred due to processing capacity constraints. While these programs have the desired impact of reducing the milk supply, or providing financial incentives to do so, they have also been challenged legally as a form of price manipulation and may have implications on the U.S. role as a dairy exporter.

OPTION #1

Support a mandatory milk supply management program.

OPTION #2

Support a voluntary milk supply management program.

OPTION #3

Support a mandatory or voluntary base-excess supply management program.

OPTION #4

Support a mandatory or voluntary market stabilization program with a penalty on the milk price.

OPTION #5

Support a mandatory or voluntary market stabilization program with a penalty on the MPP indemnities.

OPTION #6

Support a milk diversion program.

OPTION #7

Support a herd retirement program.