Dairy Policy Proposals in the 2012 Farm Bill

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September 18, 2012

Congressional Research Service
7-5700
www.crs.gov
R42736

CRS Report for Congress
Prepared for Members and Committees of Congress

Summary

Current U.S. federal dairy policy is based on five major programs—the Dairy Product Price Support Program (DPPSP), the Milk Income Loss Contract (MILC) Program, Federal Milk Marketing Orders, Dairy Import Tariff Rate Quotas, and the Dairy Export Incentive Program—which together are designed to provide price and income support and market stability for dairy producers. In addition, several smaller programs aid the U.S. dairy sector with market promotion, research, price reporting, risk management, and disaster assistance.

In recent years, dairy producers have argued that a simple price-based system fails to reflect the sharp increases in milk production costs, especially feed costs, that have occurred since the mid-2000s. In response to producer concerns and to the volatile dairy price and margin developments of the past decade, both the House Agriculture Committee-reported (H.R. 6083) and the Senate-passed (S. 3240) 2012 farm bills propose replacing the current U.S. dairy programs that rely on a simple price trigger (DPPSP and MILC) with the **Dairy Production Margin Protection Program (DPMPP),** a new income support program based on the monthly difference (i.e., the margin) between the national average farm all-milk price and a formula-derived estimate of feed costs. According to the Congressional Budget Office (CBO), eliminating DPPSP and MILC generates enough savings to more than offset the cost of implementing the new margin-based dairy proposal.

DPMPP offers two margin protection plans: Basic Margin Protection (BMP) and Supplemental Margin Protection (SMP). BMP is a fully subsidized program, subject to an annual fee which insures at a single $4.00/hundredweight (cwt.) margin. In contrast, SMP is a partially subsidized program, subject to annual premiums, that provides higher margin protection coverage in $0.50/cwt. increments from $4.50/cwt. to $8.00/cwt. Each of the margin protection programs—BMP and SMP—has different costs, makes payments based on different milk production histories, and has different limits on how much of a producer's milk production is covered by the margin protection program (80% for BMP, and 25% to 90% for SMP).

In general, all U.S. dairy producers are eligible to participate in the margin protection program. However, when producers elect to participate in DPMPP, their operations become subject to a milk supply stabilization program—referred to as the **Dairy Market Stabilization Program (DMSP)**—that reduces milk market returns when the margin falls below proposed statutory thresholds starting first at $6.00/cwt., then at $5.00/cwt., and finally at $4.00/cwt. The DMSP market stabilization proposal has generated considerable interest as a dairy supply management program and is being debated by dairy producer groups, which generally support it, and dairy processors, who oppose it.

Although the DMSP is referred to as a supply management program, it is perhaps more accurately described as a production disincentive program, since there are no production limits or quotas, and the dairy operator may continue to run his operation at any production level. Once triggered, DMSP payment reductions stay in place until one of a set of possible market conditions (referred to as suspension thresholds) is met—either the margins rise above $6.00/cwt., or U.S. prices for two basic dairy commodities (cheddar cheese or nonfat dry milk) exceed world prices by certain relative amounts, or a combination of higher margins and certain U.S.-to-international price relationships occur simultaneously.

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Introduction

Many of the provisions of the 2008 farm bill (the Food, Conservation, and Energy Act of 2008; P.L. 110-246) are set to expire on September 30, 2012, or by December 31, 2012, including dairy price and income support programs. As a result, Congress has been reviewing existing programs, consulting with stakeholders, and preparing new legislation to serve as the next five-year version of omnibus farm legislation—the 2012 farm bill.[1] The Senate passed its version of the 2012 farm bill—the Agriculture Reform, Food, and Jobs Act of 2012 (ARFJA; S. 3240)—on June 21, 2012. The House Agriculture Committee approved its version—the Federal Agricultural Reform and Risk Management Act of 2012 (FARRM; H.R. 6083)—on July 11, 2012.[2] Both bills propose replacing existing U.S. dairy price and income support programs with a new margin-based support program and an accompanying market stabilization program.

This report describes proposed changes to existing dairy programs and the new margin-based support and stabilization programs. The report first briefly describes existing U.S. dairy programs. Then it focuses on the dairy programs proposed under both the Senate-passed and House Agriculture Committee-reported farm bills. In addition to describing the major features of the proposed new programs, this report also covers differences between the two bills, as well as cost estimates of historical program outlays compared with recent Congressional Budget Office (CBO) projections of the proposed new dairy programs.[3] In addition, several examples of how these proposed dairy programs might operate for an individual dairy operation are provided in the text.

Current U.S. Dairy Policy

Current federal dairy policy is based on five major programs—the Dairy Product Price Support Program, the Milk Income Loss Contract Program, Federal Milk Marketing Orders, Dairy Import Tariff Rate Quotas, and the Dairy Export Incentive Program—which together are designed to provide price and income support and market stability for dairy producers.[4] In addition, several smaller programs aid the U.S. dairy sector with market promotion, research, price reporting, risk management, and disaster assistance.[5]

[1] See CRS Report RS22131, *What Is the "Farm Bill"?* For information on U.S. farm program expiration, see CRS Report R42442, *Possible Extension or Expiration of the 2008 Farm Bill*.

[2] For a detailed comparison of current U.S. dairy policy provisions within the two farm bill proposals—as passed by the Senate (S. 3240) and approved by the House Agriculture Committee (H.R. 6083), see CRS Report R42552, *The 2012 Farm Bill: A Comparison of Senate-Passed S. 3240 and the House Agriculture Committee's H.R. 6083 with Current Law*.

[3] See **Table 1**.

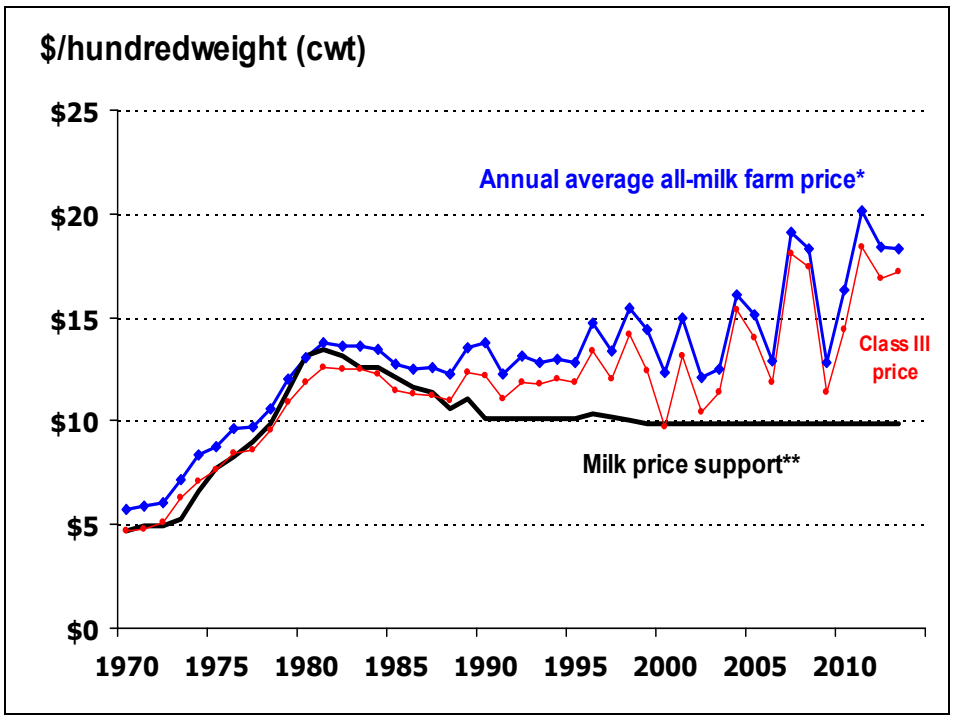
[4] For greater discussion of the policy issues surrounding major U.S. dairy programs, see *Dairy Policy Issues for the 2012 Farm Bill*, Dairy Policy Analysis Alliance (DPAA), Univ. of Wisconsin and the Food and Agricultural Policy Research Institute (FAPRI), April 2010—hereinafter referred to as *Dairy Policy Issues for 2012 Farm Bill*, DPAA, April 2010—at http://www.fapri.missouri.edu/outreach/publications/2010/Dairy_Policy_Issues_April2010.pdf.

[5] For details of current U.S. dairy programs, including authorizing legislation and issues related to their implementation, see CRS Report RL34036, *Dairy Policy and the 2008 Farm Bill*.

Dairy Product Price Support Program (DPPSP)

Established by federal law in 1949 and modified in subsequent legislation (most recently the 2008 farm bill, P.L. 110-246), DPPSP indirectly supports the farm price of fluid milk at $9.90 per hundred pounds (i.e., hundredweight or cwt.) through government purchases of dairy products from dairy processors at statutorily set prices.[6] The program is countercyclical, in that government purchases occur when product prices are low, and cease as product prices rise above support levels. Also, when purchases exceed certain statutory levels, USDA is required to make temporary price adjustments (reductions) to avoid the accumulation of excess government inventories. The DPPSP expires December 31, 2012, and would be eliminated and replaced with new policy under the Senate-passed and House Agriculture Committee-reported 2012 farm bills.

Figure 1. Milk Prices Have Moved Well Above Support Levels Since Late 1980s



Source: U.S. Dept. of Agriculture; *World Agricultural Supply and Demand Estimates (WASDE)*, Sept. 12, 2012.

Notes: * National average price received by farmers, all milk, and the announced Class III price, are USDA data; 2012 and 2013 are USDA forecasts. ** The national price support for milk was statutorily established at $9.90 per cwt. from 1998 until 2008. Beginning in 2008, government purchase prices were established for individual dairy products, but with essentially the same effect as supporting raw milk at $9.90 per cwt.

Since the mid-1990s, the annual farm price of milk has trended higher, albeit subject to an increasingly volatile pattern (**Figure 1**), whereas the federal support rate has been flat at $9.90 per cwt. Volatile milk prices have made planning more difficult and have made dairy producers more

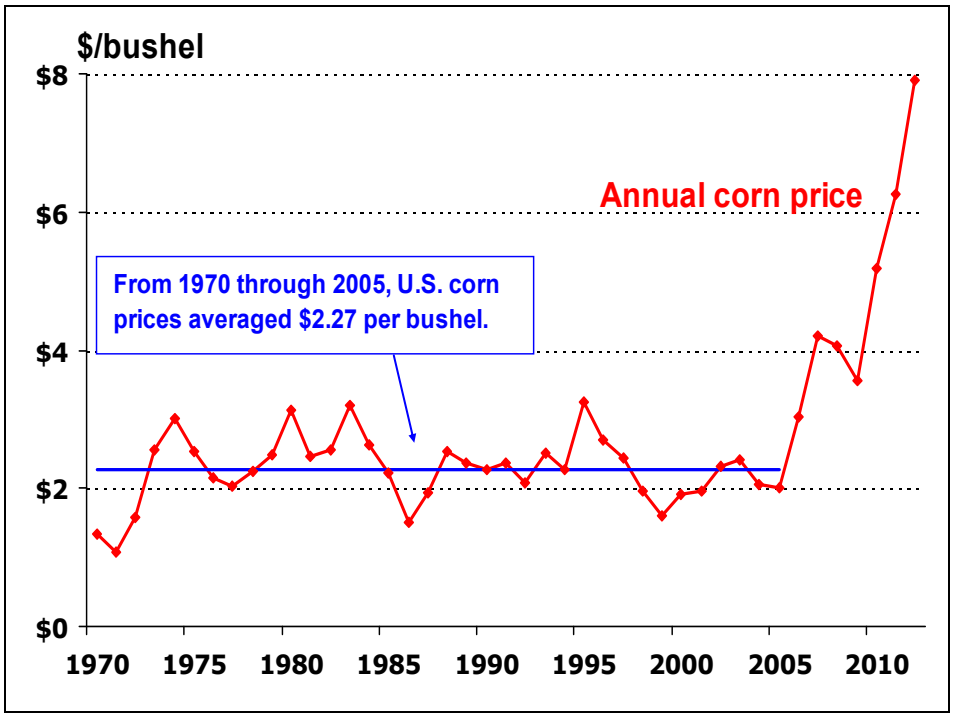
[6] The original program—named the Dairy Price Support Program—had a statutorily determined support price for fluid milk (e.g., $9.90 per cwt. in the mid-2000s). The program was renamed by the 2008 farm bill when direct fluid milk price support was shifted to indirect support via government purchases of manufactured products including butter, cheese, and milk powder at statutorily established prices. See the USDA DPPSP fact sheet at http://www.fsa.usda.gov/Internet/FSA_File/dppsp_en_fact_sheet.pdf.

vulnerable to unexpected or sustained increases in the cost of feed (the major cost component of dairy production).

> The ability of price supports to maintain an effective price floor diminished as the support price was lowered and as dairy product manufacturers became increasingly reluctant to sell product to the government. In some cases, price supports have impeded U.S. dairy exports, distorted domestic markets, and constrained dairy product innovation.[7]

Milk producers argue that in recent years support levels have become too low, relative to current market prices and costs of production, to provide meaningful support (**Table 1**). Further, milk producers contend that support based strictly on the price of milk fails to account for the sharp escalation of feed costs that has occurred since 2006 (**Figure 2**).

Figure 2. Feed Prices, Led by Corn, Have Risen Sharply Since 2006



Source: USDA, *WASDE*, Sept. 12, 2012. The national average price received by farmers for corn for 2012 is forecast by USDA at $7.90 per bushel.

Notes: Corn is the principal feed grain used in the United States. Prices for other feed grains and hay are closely correlated with the price of corn.

Since the emergence of the U.S. ethanol industry as a major source of corn demand in 2006, U.S. feed grain markets have surged to new price levels that are two to three times above the levels that persisted during the previous four decades. Rising feed costs are of particular concern to dairy producers because they represent a substantial portion of the cost of milk production—in 2011, feed costs accounted for 80% of operating costs and 54% of total costs of milk production.[8]

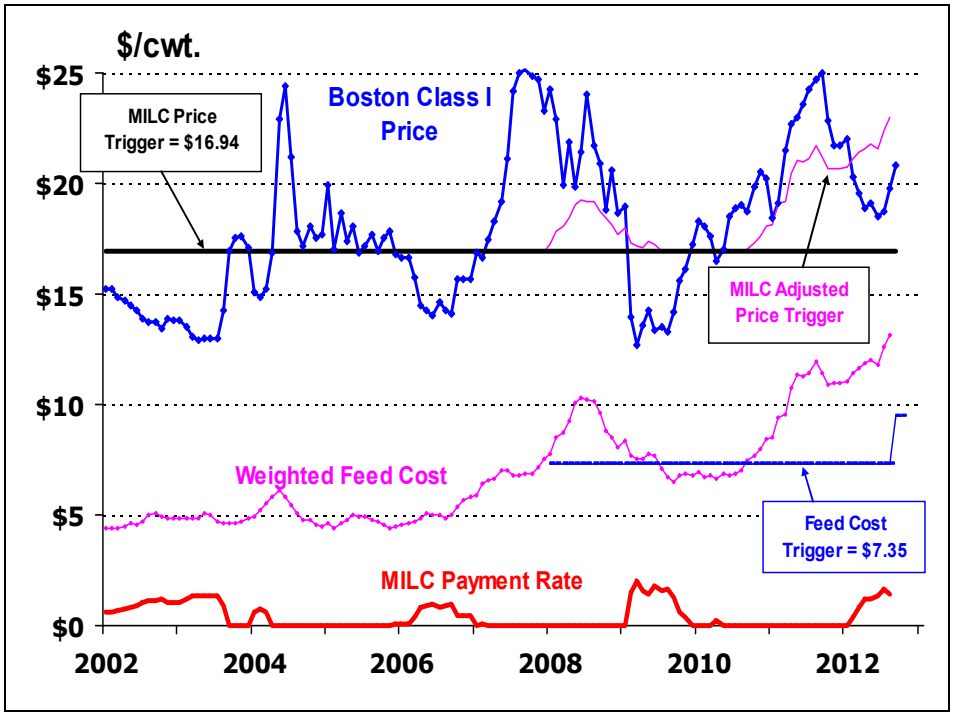
[7] *Dairy Policy Issues for 2012 Farm Bill*, Dairy Policy Analysis Alliance (DPAA), April 2010, p. 1.

[8] USDA, Economic Research Service (ERS), Commodity Costs and Returns data, retrieved on July 23, 2012, from http://www.ers.usda.gov/data-products/milk-cost-of-production-estimates.aspx.

Milk Income Loss Contract (MILC) Program

First established by the 2002 farm bill and reauthorized in 2008, MILC provides farm income support by giving participating dairy farmers nationwide a government payment whenever the farm price of milk used for fluid consumption (Class I) falls below the target price for Class I milk ($16.94 per cwt.) for farm milk sold to processors in the Boston market (**Figure 3**).[9]

Figure 3. MILC Price and Payment Parameters Since 2002



Source: Northeast Marketing Area for Boston Class I price data, USDA for prices received by farmers for various feed components, latest update *WASDE*, Sept. 12, 2012; margin calculations by CRS.

Notes: The MILC price trigger of $16.94/cwt. is adjusted upward by formula whenever a weighted feed-cost estimate exceeds $7.35/cwt. On Sept. 1, 2012, the feed-cost trigger rose to $9.50/cwt. The MILC program expires on September 30, 2012.

Under the 2002 program, all dairy producers participating in MILC were paid an amount per cwt. of milk production equal to 45% of the difference between $16.94 and the lower market price.[10] Starting in 2008, an adjustment factor was added to the MILC target of $16.94/cwt. whenever a weighted formula of dairy feed costs exceeded an established threshold of $7.35/cwt. Thus, the per unit payment rate would rise with rising feed costs. MILC payments were made on the first 2.985 million lbs. of annual milk production per farm (equivalent to annual production from about 150 dairy cows). The MILC production limitation effectively limited MILC protection to

[9] See the USDA MILC fact sheet at http://www.fsa.usda.gov/Internet/FSA_File/milc2011.pdf.

[10] The MILC program initially expired on September 30, 2005, ahead of all other farm support programs in the 2002 farm bill. The Deficit Reduction Act of 2005 (P.L. 109-171) extended MILC for two years, through September 30, 2007, but dropped the payment rate to 34% through August 31, 2007, and to 0% for September 2007, so that it had no cost beyond the two-year extension. The 2008 farm bill reauthorized the program at 45% with the drop back to 34% in the last month (September 2012) to lower costs.

about 30% of U.S. milk production.[11] As a result of this payment limitation, the MILC program has not been popular among large dairy producers and has generated strong opposition from regions with predominantly larger herds.[12]

Most MILC payments occurred during the 2002 farm bill period (FY2002-FY2007) due to sustained low milk prices. In 2004 milk prices rose briefly, temporarily ending MILC payments before restarting again in 2006. In 2007, milk prices rose sharply as part of a widespread commodity boom that lasted through most of 2008. In 2009 the U.S. dairy industry was especially hard hit by a combination of low milk prices and high feed costs that put exceptional financial pressure on many dairy producers and generated large MILC payments (**Table 1**). Milk prices recovered through 2010, but by early 2012, the incorporation of feed-cost adjustments driven by high corn prices pushed the MILC-adjusted price trigger above the price of Boston Class I milk, once again triggering MILC payments.

Several MILC program parameters were lowered on September 1, 2012, in advance of the program's expiration on September 30, 2012.[13] MILC would be eliminated immediately under the House Agriculture Committee farm bill, whereas the Senate farm bill would extend MILC (using the 45% payment factor rather than reverting to the 34% factor) for about nine months (through June 30, 2013) prior to its elimination.

Federal Milk Marketing Orders (FMMOs)

An FMMO is a geographically defined fluid milk demand area. Established by federal law in the 1930s, the FMMO system regulates milk marketing across state lines but within explicitly defined and geographically aligned multi-state regions.[14] Nine states have their own separate internal marketing orders that are state-regulated. FMMOs are designed to provide both price support and market stability for dairy producers. Producers delivering milk to FMMOs are affected by two fundamental FMMO provisions: classified pricing of milk according to end use, and pooling of receipts to pay all farmers within an FMMO a blended or weighted-average price.

Within each FMMO, dairy processors or handlers (i.e., milk buyers) are required to pay a minimum price for farm milk depending on its end use—for fluid consumption (Class I) or for manufactured products such as yogurt, ice cream, and sour cream (Class II), cheese (Class III), and butter and powdered milk (Class IV). This is referred to as "classified pricing."

An end-product price formula uses the wholesale prices of storable dairy products (butter, cheddar cheese, whey, and powdered milk) to calculate the value of milk components—protein, butterfat, non-fat solids, and other solids. Another formula adjusts for processing costs (referred to as the make allowance) and for the yield of milk components in the end products. Finally, a

[11] *Foundation for the Future*, National Milk Producers Federation (NMPF), June 2010, p. 14.

[12] *Dairy Policy Issues for 2012 Farm Bill*, DPAA, April 2010, p. 1.

[13] For purposes of limiting projected costs over the 10-year (FY2008-FY2017) baseline the 2008 farm bill reset the MILC payment parameters one month prior to the expiration of the 2008 farm bill. Starting on September 1, the MILC payment rate was lowered to 34% (down from 45%) of the difference between the feed-cost-adjusted price trigger and the lower market price, the feed cost threshold was raised from $7.35/cwt. to $9.50/cwt. and MILC payments will only be made on the first 2.4 million lbs. of annual milk production, instead of 2.985 million lbs.

[14] For historical references on FMMO origins, see USDA, AMS, Dairy Programs, "Federal Milk Marketing Orders," listed under "Programs and Services" at http://www.ams.usda.gov/AMSv1.0/dairy.

constructed price for fluid milk (Class I) is derived that varies by region. Within each FMMO, the value of all milk sales are "pooled" to generate a uniform average price—the blend price—paid to all dairy farmers that deliver milk within that FMMO. The farm price of approximately two-thirds of U.S. milk production is regulated under FMMOs.

FMMOs are permanently authorized, and are therefore not subject to reauthorization in periodic omnibus farm bills. FMMOs are established and amended through a formal public hearing process that allows interested parties to present evidence regarding marketing and economic conditions in support of or in opposition to instituting or amending an order. Most changes are made administratively by USDA through the rulemaking process and approved by farmers in a referendum, although other legislation can address issues related to the FMMO system.

Dairy Export Incentive Program (DEIP)

Established by the 1985 farm bill with subsequent reauthorizations, DEIP subsidizes dairy product exports by providing per-unit cash payments to exporters.[15] The subsidy helps higher-priced U.S. dairy products compete in international markets. As a result, DEIP provides support through enhanced export competitiveness. Originally intended to counter foreign (mostly European Union) dairy subsidies, DEIP has been rarely used in recent years as the use of dairy export subsidies has declined globally (**Table 1**). DEIP expires on September 30, 2012. DEIP would be eliminated immediately under both the Senate-passed and House Agriculture Committee-reported 2012 farm bills.

Dairy Import Tariff Rate Quotas (TRQs)

TRQs protect higher-priced domestic dairy products by limiting the importation of lower-priced foreign dairy products.[16] A quota level is established for selected dairy products such that under-quota import volumes enter the United States at a zero or reduced duty, whereas above-quota volumes are charged a prohibitive duty. By limiting competition, TRQs provide price support to the domestic dairy industry while protecting less efficient operations and raising consumer prices. Dairy TRQs are unaffected by proposed changes to the farm bill.

> U.S. dairy trade policy does not directly affect milk prices in the same way as marketing orders or the MILC program, but trade policy does influence the competitive environment for U.S. exports and imports of dairy products. Greater exposure to world markets has brought an added element of milk price instability to U.S. dairy markets. At the same time, foreign demand for dairy products is expanding more rapidly than U.S. demand, offering growth in U.S. milk production.[17]

[15] See USDA, Foreign Agricultural Service (FAS), DEIP, at http://www.fas.usda.gov/excredits/deip/deip-new.asp.

[16] For details by product, see the Harmonized Tariff Schedule of the United States (2012) (rev. 2), Chapter 4, pp. 2-7.

[17] *Dairy Policy Issues for 2012 Farm Bill*, DPAA, April 2010, p. 2.

Several Smaller Dairy Support Programs

Dairy Forward Pricing Program. Allows farmers to voluntarily enter into forward price contracts with milk handlers for pooled milk used for manufactured products (Classes II, III, and IV) under the FMMOs. The program allows regulated handlers to pay farmers in accordance with the terms of a forward contract instead of paying the minimum FMMO blend price for pooled milk. The price paid by milk handlers under the contracts are deemed to satisfy the minimum price requirements of FMMOs. The program expires September 30, 2012, when the last contract can be signed, but would be extended under both H.R. 6083 and S. 3240.

Dairy Indemnity Payment Program (DIPP). Under DIPP, payments are made to dairy producers when a public regulatory agency directs them to remove their raw milk from the commercial market because it has been contaminated by pesticides, nuclear radiation or fallout, or toxic substances and chemical residues other than pesticides through no fault of their own. Payments also are made to manufacturers of dairy products, but only for products removed from the market because of pesticide contamination. DIPP expires December 31, 2012, but would be extended under both H.R. 6083 and S. 3240.

Dairy Promotion and Research Program. A generic dairy product promotion, research, and nutrition education program, funded by a mandatory $0.15/cwt. assessment on milk produced and marketed in the 48 contiguous states. Importers in all 50 states, the District of Columbia, and Puerto Rico must also pay an assessment rate of $0.075/cwt. on imported products. USDA issues regulations on the time and method of importer payments. This program expires September 30, 2012, but would be extended under both H.R. 6083 and S. 3240.

Fluid Milk Processor Promotion Program. Established by the 1990 farm bill (P.L. 101-624), with subsequent reauthorizations, the national Fluid Milk Processor Promotion Program develops and finances generic advertising programs designed to maintain and expand markets and uses for fluid milk products produced in the contiguous 48 states and the District of Columbia. The program is funded through a 20¢/cwt. assessment on all milk processed for fluid consumption. The fluid milk order was approved by a referendum among fluid milk processors and became effective December 10, 1993. The program originally required periodic congressional reauthorization; however, the 2002 farm bill gave it permanent authority.

Dairy Product Mandatory Reporting Program. Requires manufacturers to report to USDA the price, quantity, and moisture content of dairy products sold. Quarterly audits are to be undertaken to ensure compatibility between submitted information and related dairy market statistics.

Livestock Gross Margin (LGM) Insurance for Dairy. A pilot program available for purchase from private insurers through USDA's permanently authorized federal crop insurance program. LGM provides protection to dairy producers when feed costs rise or milk prices drop. Gross margin is the market value of milk minus feed costs. LGM Dairy uses futures prices for corn, soybean meal, and milk to determine the expected gross margin and the actual gross margin. Under S. 3240, participation in the proposed dairy margin program (see below) makes a dairy producer ineligible for LGM. Under H.R. 6083, dairy operators that participate in the proposed dairy margin program are eligible for LGM, but only after operations that are not participating in the production margin protection program are enrolled in LGM.

Sources: USDA's dairy programs home page at http://www.ams.usda.gov/AMSv1.0/DairyLandingPage; USDA DIPP fact sheet at http://www.fsa.usda.gov/Internet/FSA_File/dipp10.pdf; USDA LGM Dairy fact sheet at http://www.rma.usda.gov/pubs/rme/lgmdairy.pdf.

USDA outlays for the major dairy support programs have trended downward since the 1980 farm bill period (**Table 1**). The outlook for strong dairy product prices in the Congressional Budget Office (CBO) baseline accounts for the relatively small net outlay projection of $248 million for the FY2013-FY2017 period, assuming an extension of current dairy policy.

Table 1. U.S. Dairy Programs, Historical and Projected USDA Outlays

($ millions)

Farm Bill	Fiscal Years	DPPSP	Market Loss Assistance	MILC	DEIP	Total
1980	FY1981 - FY1985	10,592	—	—	—	10,592
1985	FY1986 - FY1990	6,221	—	—	8	6,229
1990	FY1991 - FY1996	1,388	—	—	544	1,932
1996	FY1997 - FY2002	2,284	1,000	—	481	3,765
2002	FY2003 - FY2007	1,120	—	2,538	90	3,748
2008	FY2008 - FY2012	280	290	1,091	28	1,688
Projections for FY2013-FY2017						
CBO Baseline[a]	FY2013 - FY2017	46	14	163	26	248
S. 3240[b]	FY2013 - FY2017					107
H.R. 6083[b]	FY2013 - FY2017					60

Source: Historical data are assembled by CRS using various USDA data sources; projected data for FY2013 through FY2017 are from the Congressional Budget Office (CBO).

Notes: USDA's Commodity Credit Corporation (CCC) total outlays do not include the implicit costs to consumers of tariff-rate quotas (TRQs) which limit access to cheaper international products. Also, there are no federal outlays for FMMOs other than for their administration.

a. Projections from the CBO March 2012 baseline, assuming continuation of current law. DPPSP includes net receipts of $8 million from sales of dairy products.

b. CBO Cost Estimates for S. 3240 and H.R. 6083, as scored against CBO's March 2012 baseline.

New Dairy Policy Proposed in the 2012 Farm Bill

Both the Senate-passed and House Agriculture Committee-reported 2012 farm bills propose replacing the current dairy programs that rely on a simple price trigger (DPPSP and MILC) with the **Dairy Production Margin Protection Program (DPMPP)**—a new income-support program based on the margin between the national average all-milk farm price and a formula-derived estimate of feed costs (**Figure 4**). The proposed margin protection program is linked to a supply stabilization program—the **Dairy Market Stabilization Program (DMSP)**—that reduces payments to participating producers for their milk marketings when the margin falls below proposed statutory thresholds.

The two proposed new programs—DPMPP and DMSP—are nearly identical in both the House and Senate bills. The proposed dairy margin and stabilization programs originated with a proposal published in June 2010 by the National Milk Producers Federation (NMPF) called the *Foundation for the Future (FTF)*.[18] A version of FTF was introduced as H.R. 3062, The Dairy Security Act (DSA), by House Agriculture Committee Ranking Member Collin Peterson on September 23, 2011. A modified version of DSA appears as "Subtitle D—Dairy," in Title I of both the House-reported (H.R. 6083) and Senate-passed (S. 3240) farm bills.

[18] See the NMPF Foundation for the Future website at http://www.futurefordairy.com/.

Although S. 3240 and H.R. 6083 contain very similar versions of the proposed margin protection and market stabilization programs and provide important structure and direction concerning the application of the new programs, substantial detail would need to be worked out by USDA in order to implement the new programs. As a result, this report is "preliminary" in the sense that neither the final 2012 farm bill nor the USDA implementing regulations have yet been developed. Instead, this report relies on the program details of S. 3240 and H.R. 6083, supplemented by several recent studies and reports produced by prominent U.S. dairy economists and market experts of how the new margin protection and market stabilization programs are expected to function, to produce a preliminary description of the main features of the proposed new dairy programs.[19] Changes to current U.S. dairy policy as well as the main differences between H.R. 6083 and S. 3240 are described below.[20]

Current Dairy Programs That Are Eliminated or Retained

The current price-based **Dairy Product Price Support Program (DPPSP)** and **Milk Income Loss Contract (MILC)** programs, as well as the **Dairy Export Incentive Program (DEIP),** are eliminated under both S. 3240 and H.R. 6083. The elimination of DPPSP and DEIP would be effective October 1, 2012, under both bills. MILC is eliminated immediately under H.R. 6083, but is extended for about nine months (through June 30, 2013) under S. 3240 to provide income support for a transitional period of time while dairy producers, who might otherwise be hesitant to switch to the new programs, have extra time to better understand and evaluate them. The S. 3240 extension of MILC would be done using the MILC program parameters that were in place through August 31, 2012 (i.e., the MILC payment rate equals 45% of the difference between the adjusted target price and the actual Boston Class I milk price). If, at any time during the MILC interim period (through June 30, 2013), a producer opts for margin protection (DPMPP) in lieu of MILC, the decision is irrevocable. Also, if dairy producers sign up for DPMPP, they become ineligible for the Livestock Gross Margin (LGM) Insurance for Dairy program mentioned earlier.

According to the Congressional Budget Office (CBO), eliminating DPPSP and MILC generates enough savings to more than offset the cost of implementing the new dairy proposals. The budgetary outlays for the House and Senate versions of the new dairy proposal over the FY2013-FY2017 period are $60 million (H.R. 6083) and $107 million (S. 3240), respectively. The combination of instituting the new dairy programs and revoking the current ones results in projected savings of $141 million under S. 3240 and $188 million under H.R. 6083 (**Table 1**).

The **Dairy Forward Pricing, Dairy Indemnity,** and **Dairy Promotion and Research Programs** are extended through the 2012 farm bill period until September 30, 2017, by both bills. S. 3240 also requires increased reporting frequency (to at least a monthly basis) for wholesale dairy product prices or commercial stocks of bulk dairy commodities or any product information that may "significantly aid price discovery" under the **Dairy Product Mandatory Reporting** provisions of current law.

Federal Milk Marketing Orders (FMMOs), which exist under permanent authority, are left unchanged by H.R. 6083. In contrast, S. 3240 recommends two minor adjustments—first, to

[19] Citations and references are used to signify source material.

[20] For an overview of the proposed dairy programs, see "Dairy Provisions of the Senate Agriculture Reform, Food, and Jobs Act of 2012," PDMP Information Letter 12-03, by Andrew Novakovic and Mark Stephenson, April 2012; hereafter referred to as "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012.

establish an information clearinghouse for the purpose of educating the public about the FMMO system and any FMMO referenda, and second, to require USDA to analyze the effects of replacing the use of end-product price formulas with other milk pricing alternatives.

Dairy Production Margin Protection Program (DPMPP)

The newly proposed DPMPP would provide milk producers with protection from low operating margins in place of the DPPSP and MILC programs. Unlike the MILC program, DPMPP would not have an explicit cap related to size of operation—i.e., there is no production or dollar payment limitation associated with the dairy margin program. Instead, DPMPP payments would be limited by how much of a producer's historical and/or current milk production is covered.

A producer's decision to participate in DPMPP is voluntary; however, once a producer elects to participate in DPMPP, he is also electing (by mandate) to subject his dairy operation to the rules of the Dairy Market Stabilization Program (DMSP) as described in a later section.

A key aspect of the proposed DPMPP program is creating a timely and transparent measure of a dairy production margin that will be useful across all dairy production regions. The DPMPP program proposes using USDA-reported monthly national average price data for all classes of milk (the all-milk price) and the cost of three feeds that represent the bulk of purchased feeds in dairy rations (corn, soybean meal, and alfalfa hay) to construct an estimate of the margin between the price for 100 pounds (i.e., a hundredweight or cwt.) of milk produced and the cost of an average feed ration used to produce a hundredweight of milk (see box below).

Operating "Margin" = Milk Returns over Feed Costs

The operating margin is defined as the difference between the average national "all-milk" farm price and an average, formula-derived monthly value for the cost of a representative dairy feed ration.[21]

Margin per cwt. = (All-Milk Price per cwt.) – (Feed Cost per cwt.)

Weighted Feed Cost Formula

The national average price paid for feed used by a dairy operation to produce a cwt. of milk is based on price data for the three major feed ingredients—corn, soybean meal, and alfalfa hay. Monthly price data for these three feedstuffs are combined into a weighted feed cost estimate per cwt. of milk production using the following formula.[22]

Feed Cost per cwt. = (1.0728 x corn price) + (0.00735 x soybean meal price) + (0.0137 x alfalfa hay price)

where the corn price is in $/bushel and the soybean meal and alfalfa hay prices are in $/ton.

This formulation is used, in part, because the data are both transparent and readily available at the national level, thus facilitating its routine and timely calculation, and also because feed costs are traditionally the most variable component of dairy production operating margins. It is noteworthy that important milk production costs are necessarily excluded from this formula, including labor,

[21] Monthly prices received by farmers for all-milk, corn, and alfalfa hay are published monthly in *Agricultural Prices*, National Agricultural Statistics Service (NASS), USDA. The average wholesale price for soybean meal, Central Illinois, is reported in *Market News,* Agricultural Market Service (AMS), USDA.

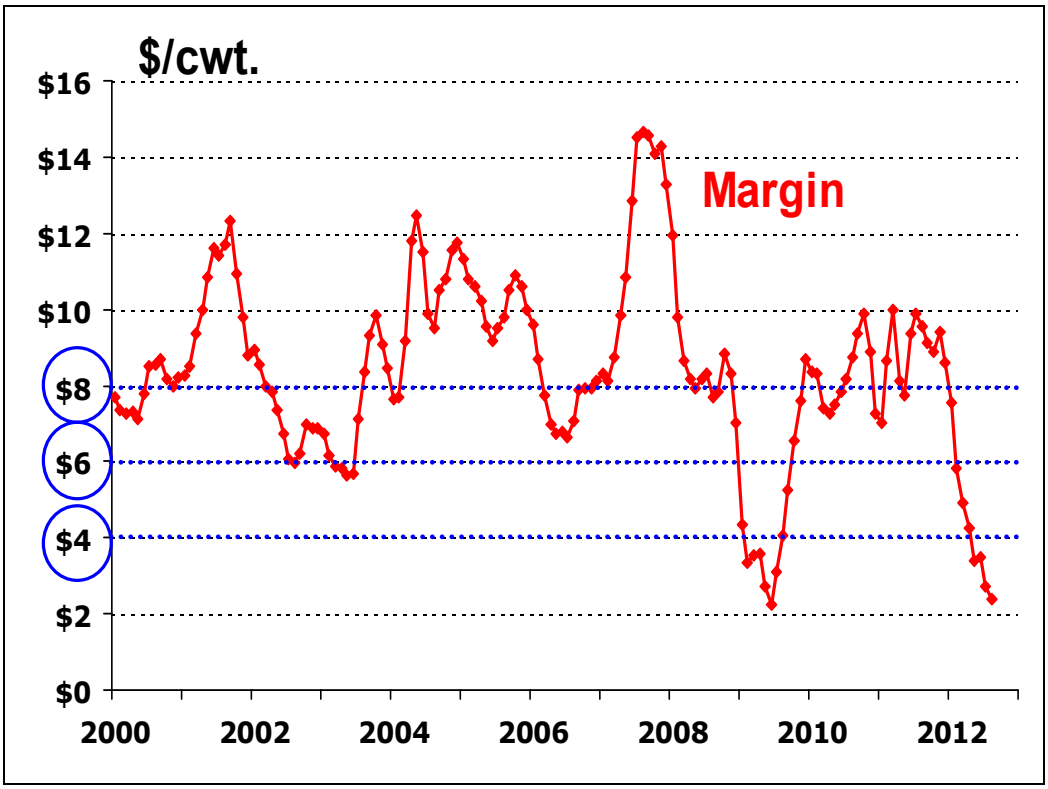
[22] For a detailed description of the feed cost formula derivation, see *Foundation for the Future*, NMPF, June 2010, pp. 16-19; at http://www.futurefordairy.com/.

utilities, depreciation, capital, veterinary services, and nutritional supplements. Thus, this operating margin formula is a crude indicator of dairy profitability. The excluded operating cost items vary greatly across individual operations and will likely be addressed by individual producers when determining their desired level of margin coverage.

Effective Date and Implementation Specifics

Assuming that a final version of the 2012 farm bill passes both the House and Senate, then the farm bill would become "effective" when it is signed into law by the President. Under both bills, 30 days after the farm bill has become effective, USDA must announce the establishment and availability of a DPMPP program.[23] H.R. 6083 allows for participation in DPMPP retroactive to the effective date under certain conditions. S. 3240 has no provision for retroactive signup. According to S. 3240, 120 days after the act has been signed into law the DPMPP program must be implemented.

Figure 4. The Dairy Operating Margin: (All-Milk Price) minus (Average Feed Cost)



Source: Calculated by CRS based on USDA data (WASDE, Sept. 12, 2012) and using the formula detailed in S. 3240 and H.R. 6083, Section 1401(4) in both bills.

[23] USDA is required to publish a notice in the *Federal Register*, to inform dairy producers and other stakeholders of the availability of the new programs.

Signing Up for DPMPP—BMP, SMP, or Both?

DPMPP offers two margin protection plans: Basic Margin Protection (BMP) and Supplemental Margin Protection (SMP). BMP is a fully subsidized program, subject to an annual fee, that insures at a single $4.00/cwt. margin. In contrast, SMP is a partially subsidized program, subject to annual premiums, that provides additional margin protection coverage in $0.50/cwt. increments from $4.50/cwt. to $8.00/cwt. See **Figure 4** for a depiction of how often the monthly margin would have fallen below the $8.00/cwt., $6.00/cwt., and $4.00/cwt. thresholds.

In general, all U.S. dairy producers are eligible to participate in the margin protection program. USDA will announce a registration (or signup) period in the *Federal Register* including the manner and form of registration (or signup). According to the Senate-passed S. 3240, producers that elect to participate in BMP must register with USDA within the 15-month period beginning on the initiation date of the USDA-announced registration period.[24] In contrast, the House Agriculture Committee-reported H.R. 6083 states that dairy producers seeking to participate in BMP have a one-year period from the initiation date of the signup period to opt in or out.

Margin protection coverage is cumulative—a dairy operator must first sign up for BMP before participating in SMP. The decision to participate in BMP is a one-time choice and lasts for the duration of the 2012 farm bill through September 30, 2017. The decision to participate in the higher coverage levels of SMP is made on an annual basis (beginning with the initial signup) whereby a producer may opt in or out of SMP in any given year irrespective of previous SMP participation.

The annual administrative fee charged for participation in BMP (**Table 2**) is based on the dairy producer's volume of milk marketed during the previous calendar year. The two farm bill proposals have different schedules for the administrative fee—H.R. 6083 proposes lower fees for milk marketing levels above 5 million lbs. compared to the fees proposed under S. 3240. The annual administration fee for BMP is paid at registration (or signup).

Table 2. Annual Administrative Fee for Basic Margin Protection

If previous calendar year milk marketings (lbs.) are:	S. 3240	H.R. 6083
< 1 million lbs.	$100	$100
≥ 1 million lbs. but ≤ 5 million lbs.	$250	$250
> 5 million lbs. but ≤ 10 million lbs.	$350	$250
> 10 million lbs. but ≤ 40 million lbs.	$1,000	$500
> 40 million lbs.	$2,500	$1,000

Source: ARFJA (S. 3240), Section 1412; and FARRM (H.R. 6083), Section 1412.

H.R. 6083 also stipulates that within 30 days after the "effective" date of the farm bill, USDA must publish a notice in the *Federal Register* (FR) of the availability of "retroactive" margin protection covering the period from the "effective" date of the farm bill until a producer's initial signup for margin protection. To comply, producer signup must occur within 150 days of the USDA FR announcement. The retroactive SMP margin coverage may not exceed $6.00/cwt.

[24] S. 3240, Section 1412(c)(1).

Both BMP and SMP have provisions for new entrants and procedures for transferring eligibility and participation upon sales of a dairy. There are also provisions for owners of multiple operations and multiple owners of one operation.[25]

Milk Production Coverage Under Margin Protection

Each of the margin protection programs—BMP and SMP—has different costs, makes payments based on different milk production histories, and has different limits on how much of a producer's milk production is covered by the margin protection program.

Under BMP, all participants receive the same coverage rate of 80% of *Basic Production History (BPH)*. For dairy operators who have a complete history of dairy operations, BPH is defined as the highest annual milk marketings during any of the three years preceding the calendar year in which the participating dairy operation first signed up for BMP. Special procedures for determining a BPH apply for new entrants and operators with incomplete data. The BPH remains fixed for the duration of the 2012 farm bill.

Under SMP, each producer elects a coverage level of between 25% and 90% of the *Annual Production History (APH)*. APH is equal to the actual milk marketings during the preceding calendar year. Unlike the BPH, which is fixed, the APH may vary from year to year over the duration of the 2012 farm bill. As a result, APH allows for margin protection to be extended to any growth in annual dairy production that occurs during the farm bill period.

Because it is unlikely that BPH will equal APH, it will generally be true that participating dairy operators will get paid on different amounts of milk under the two programs—BMP and SMP.

Two-Month Period Average Margins

For purposes of determining both whether a DPMPP payment is triggered and the amount of the DPMPP payment, average margins are calculated for specific two-month periods. Each calendar year is broken into the following two-month periods: January-February, March-April, May-June, July-August, September-October, and November-December.

Note that a low single-month average margin does not trigger a DPMPP payment if the two-month average is above the trigger. For example, assume a producer has selected a $6.00 margin threshold (described below). Then a January margin of $5.80 followed by a February margin of $6.30 produces a two-month average of $6.05, which would fail to trigger the margin threshold.

USDA is instructed to determine a margin as soon as possible after the necessary prices are reported. NASS full-month price estimates—not preliminary estimates—must be used for both months in calculating the two-month average.

One-Month Period Average Margins

Average margins are calculated for one-month periods for purposes of evaluating whether a Dairy Margin Stabilization Program (DMSP) threshold has been triggered as described later.

Basic Margin Protection (BMP)

Basic Margin Protection (BMP) can be thought of as providing protection from catastrophic losses due to low margins. Under BMP, whenever the average operating margin falls below $4.00 per cwt. during a two-month period, then a government payment equal to the difference between $4.00 and the actual margin (up to a maximum per cwt. payment of $4.00) is triggered.[26]

BMP Payment Rate per cwt. = the lesser of ($4.00 – actual margin) or $4.00

[25] "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012, p. 6.

[26] The $4.00/cwt. cap on the BMP payment rate excludes negative margins where feed costs exceed the all-milk price.

To determine the BMP payment for the specific two-month period in which a positive BMP payment rate occurs, the BMP payment rate is applied to the lesser of 80% of the BPH prorated to a two-month period (i.e., BPH divided by six), or the actual quantity of milk marketed during the two-month period.

BMP Payment = (BMP Payment Rate) * Lesser of 80% of (BPH/6) or (actual 2-month milk production)

BMP payments will continue as long as the average margin is less than $4.00/cwt. for each successive two-month period. BMP payments cease when the average margin reaches or exceeds $4.00/cwt. during any two-month period.

Special Note on Margin Payments

Neither S. 3240 nor H.R. 6083 specifies a particular timetable for a BMP (or SMP) payment, but it is reasonable to expect that payment would be as soon as is practicable. Since all payments are based on data that are collected before a payment action is announced (i.e., coverage level and base marketings), USDA would not have to wait for any new data or action on the part of a producer.[27]

Supplemental Margin Protection (SMP)

Supplemental Margin Protection (SMP) can be thought of as providing protection from sustained low operating margins but at levels above the $4.00/cwt. catastrophic level of BMP. Under SMP, dairy producers already participating in BMP can elect to buy additional margin protection each year in $0.50/cwt. increments from $4.50 up to $8.00 per cwt. The decision to participate in SMP is a voluntary choice made annually. This is in contrast to BMP participation, which involves a commitment for the lifetime of the 2012 farm bill.

In addition to selecting an *SMP margin threshold* ranging from $4.50/cwt. to $8.00/cwt., the producer must elect a *coverage level* of between 25% to 90%. The coverage level determines the portion of the farm's milk production that will receive an SMP payment. As mentioned earlier, under SMP, the relevant measure of historical milk production is referred to as the annual production history (APH) and is equivalent to the previous year's milk production. The coverage level is also a key determinant in calculating the premium to be paid for supplemental margin protection (described below).

Calculating the SMP Payment

Whenever the operating margin falls below the selected *SMP margin threshold* for a consecutive two-month period, a payment will be made to a portion of a participating producer's APH. The *SMP payment rate per cwt.* is equal to the difference between the selected *SMP threshold* and the greater of the actual margin or $4.00.

[27] "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012, p. 6.

SMP Payment Rate per cwt. = (Selected SMP Threshold) – greater of (actual margin) or $4.00

To determine the *SMP payment*, the SMP payment rate times the coverage level is applied to the lesser of either the *APH* for which a producer contracted, but prorated to a two-month period (i.e., APH divided by six), or the actual quantity of milk marketed during the two-month period.

SMP Payment = (SMP Paymt. Rate) * (Coverage level) * lesser of (APH/6) or (actual 2-mo. milk prod.)

SMP payments will continue as long as the margin is less than the selected SMP margin threshold for consecutive two-month periods. SMP payments cease when the margin reaches or exceeds the selected SMP margin threshold for a two-month period.

Example of BMP and SMP Payment Calculations

Suppose that for a particular two-month period the average all-milk price is $18.50/cwt. and the formula-determined feed ration per cwt. is $15.50, such that the margin is $3.00/cwt. Consider a dairy producer that traditionally has about 500 cows on his operation, but that is slowly expanding. The producer has selected a $6.50/cwt. SMP margin threshold with a 90% coverage level. Assume his BPH is 10 million lbs. (or 100,000 cwt.), while the APH (i.e., the actual milk production for the preceding year) is 110,000 cwt. and the actual milk production for the two-month period is 18,000 cwt. Then the BMP and SMP payments for the two-month period will be calculated as follows.

The BMP payment rate would be based on the difference between $4.00 and the lower margin:

BMP Payment Rate per cwt. = $4.00 - $3.00 = $1.00

The BMP payment for the two-month period equals the payment rate times the relevant milk production determined as the lesser of 80% of the pro-rated BPH (i.e., 100,000 cwt./6) or the actual milk production for the period:

BMP Payment = ($1.00) * [lesser of (80% of 16,667 cwt.) or (18,000 cwt.)] = $13,333

For the SMP payment, both the payment rate (equal to the SMP margin threshold less the greater of the margin or $4.00) and the relevant milk production must be determined. The SMP payment rate is based on the difference between the SMP protection threshold of $6.50 and the higher of the margin or $4.00:

SMP Payment Rate per cwt. = $6.50 - greater of ($4.00 or $3.00) = $2.50

SMP payments are made to the coverage level percentage of the relevant milk production. The selected coverage level is 90%. The relevant milk production is the lesser of the pro-rated APH of 110,000 cwt. (i.e., 18,333 cwt.) or the actual milk production for the two-month period of 18,000 cwt. The SMP payment for the two-month period equals the payment rate times the relevant milk production, determined as:

SMP Payment = $2.50 * (90%) * (18,000 cwt.) = $40,500

Total Payments = BMP + SMP Payments = $13,333 + $40,500 = $53,833

Note that these BMP and SMP payment examples are for a specific two-month period and would have to be recalculated for each succeeding two-month period based on any changes in the average margin. These two-month payments are in contrast to the BMP annual fee and the SMP premium, which are only paid once in a year.

Calculating the SMP Premium

In order to obtain SMP coverage, a participating farmer would be required to pay an annual premium. The premium rate per cwt. (**Table 3**) varies with both the size of the participating dairy operation (i.e., whether it has greater or less than 4 million lbs. of milk production per year) and the level of margin protection selected ($4.50/cwt. to $8.00/cwt.). Under H.R. 6083, proposed premium fees are slightly higher on small producers but significantly lower on large producers than under S. 3240.

Table 3. Premium Rates per cwt. for Supplemental Margin Protection

Supplemental Coverage Threshold	S. 3240		H.R. 6083	
	1st 4 million lbs. of APH	Milk prod. > than 4 million lbs. APH	1st 4 million lbs. of APH	Milk prod. > than 4 million lbs. APH
$4.50	$0.010	$0.020	$0.010	$0.015
$5.00	$0.020	$0.040	$0.025	$0.036
$5.50	$0.035	$0.100	$0.040	$0.081
$6.00	$0.045	$0.150	$0.065	$0.155
$6.50	$0.090	$0.290	$0.090	$0.230
$7.00	$0.400	$0.620	$0.434	$0.434
$7.50	$0.600	$0.830	$0.590	$0.590
$8.00	$0.950	$1.060	$0.922	$0.922

Source: ARFJA (S. 3240), Section 1415(d), and FARRM (H.R. 6083), Section 1415(d).

Note: APH = Annual Production History which is equivalent to the previous year's milk production.

The annual SMP premium is calculated as the product of the premium rate per cwt., the coverage level selected (25% to 90%), and the APH.

SMP Premium = (SMP Premium Rate) * (Coverage Level) * (APH)

For dairy producers with an APH in excess of 4 million lbs., they would be charged the lower premium rate on the first 4 million lbs. and the higher premium rate on the amounts above that. In 2011, approximately 88% of U.S. dairy farms had annual milk production of 4 million pounds or less and they produced about 25% of total U.S. milk volume.[28]

The timing and manner of SMP premium payments is something that USDA would have to develop when it promulgates specific rules. Both bills simply instruct USDA to provide more than one method of payment and to use a method that "maximizes dairy operation payment flexibility and program integrity."[29]

[28] Farm-size shares are from "Farms, Land in Farms, and Livestock Operations," NASS, USDA, February 17, 2012, and total milk production is from "Milk Production, Disposition, and Income," NASS, USDA, April 25, 2012.

[29] "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012, p. 10.

Example of SMP Premium Rate Calculation

Following with the earlier example (and based on the H.R. 6083 premium schedule from **Table 3**), a dairy producer with an APH of 110,000 cwt. that selects a $6.50/cwt. SMP margin threshold with a 90% coverage level will calculate his premium as follows.

For the first 4 million lbs. (or 40,000 cwt.) of APH, use SMP premium rate of $0.09/cwt.:

$SMP\ Premium_1 = (\$0.09) * (90\%) * (40{,}000\ cwt.) = \$3{,}240$

For all APH milk production above the first 4 million lbs. (or 110,000 cwt. – 40,000 cwt.) use SMP premium rate of $0.23/cwt.:

$SMP\ Premium_2 = (\$0.23) * (90\%) * (70{,}000\ cwt.) = \$14{,}490$

The total SMP premium is the sum: **$3,240 + $14,490 = $17,730**.

This SMP premium is in addition to the BMP annual fee of $250.

Dairy Market Stabilization Program (DMSP)

Participation in the Dairy Market Stabilization Program (DMSP) is obligatory with participation in DPMPP. DMSP is described most commonly as a supply management program; however, it is perhaps more accurately described as a production disincentive program—for dairy operations that participate in DPMPP, under certain margin conditions, if their actual milk marketings exceed their base marketings (described below), then they will receive a lower return on their milk marketings. The reduction in milk revenues increases as the calculated margin declines below statutorily established thresholds starting at $6.00/cwt.

When the DMSP margin trigger has been met, USDA will announce that the DMSP stabilization program will be in effect (starting the month after USDA's announcement) and that milk purchasers (or handlers) are ordered to split their payments to milk producers with an increasing portion of payments (ranging from 2% to 8%) directed to USDA and a declining portion of payments (ranging from 98% to 92%) going to the milk producers. The funds diverted to USDA from the reduced milk payments are to be used to purchase dairy products for donation to food banks and other programs, and/or for expanding consumption and building demand for dairy products.

DMSP includes no production limits or quotas. Dairy operators can continue to run their farms at any production level; however, once DMSP is triggered, milk producers will not receive full payment on their milk marketings. The concept behind the DMSP program is that payment reductions are intended to have one or both of two basic effects, either of which is expected to result in a higher future farm price for milk—a demand effect stimulated by USDA use of diverted milk payment funds, or a supply effect as payment reductions encourage milk producers to reduce their milk deliveries.[30]

Just as DMSP includes statutorily established threshold conditions or "entry triggers" that trigger the announcement of a DMSP action, there are also "exit triggers" that determine the termination

[30] Ibid., pp. 10-11.

of a DMSP action. Once a DMSP action is terminated, a new program cannot be announced until at least two months have passed. The entry and exit triggers are described below.[31]

Effective Date and Implementation Rules

According to S. 3240, 120 days after the 2012 farm bill has been signed into law, USDA must establish and implement the DPMPP program. Although both the House and Senate bills provide a framework for the DMSP, USDA would have to write rules to fully cover how the program would work.

Implementing the DMSP

Any milk producer who registers for DPMPP is automatically covered by the provisions of DMSP. As a result, when dairy producers sign up for DPMPP, they must also elect the method to be used for calculating their dairy operation's *DMSP base* to be used in the determination of possible milk payment reductions. A producer's DMSP base selection may be either (1) the average volume of monthly milk marketings during the three months immediately preceding the month that the stabilization program will become effective, or (2) the volume of monthly milk marketings in the preceding year but for the same month that DMSP becomes effective. As a result, the DMSP base will likely vary from month to month and year to year over the duration of the 2012 farm bill.

Two conditions could trigger DMSP payment reductions: (1) the margin is equal to or less than $6.00/cwt. for each month of any consecutive two-month period, or (2) the margin for any single month is equal to or less than $4.00/cwt. If either of these conditions is met, then USDA must announce that DMSP payment reductions will be in effect beginning on the first day of the next month. As a result, for each consecutive two-month period, DMSP uses the higher one-month average margin to assess whether the $6.00/cwt. threshold has been breached.

For example, consider the hypothetical data in **Table 4**. The January-February two-month average margin of $5.95/cwt. would trigger a DPMPP payment at a $6.00 threshold; however, it would not trigger the DMSP because both months were not below the $6.00 threshold. The February-March, March-April, and April-May two-month combinations would trigger the DMSP because, in each case, both consecutive months are below $6.00.

Each successive decline in the DMSP margin threshold (below $6.00, $5.00, and $4.00) has two sets of *payment reduction factors*: a first set that is applied to the DMSP base and a second set that is applied to the actual milk marketings for the period (**Table 5**). Milk payments are made on whichever calculated product is greater—(Payment Reduction Factor 1) x (DMSP Base) or (Payment Reduction Factor 2) x (Actual Production). However, no payment reduction is made if the actual milk marketings for that period are less than the calculated product of the payment reduction factor and the DMSP base.

[31] Ibid., p. 11.

Table 4. Hypothetical Example of One- and Two-Month Average Margins and Their Relation to DPMPP and DMSP Triggers

Month	1-mo. Ave. Margin	Is DMSP Triggered?	2-mo. Ave. DPMPP Margin[b]	Is DPMPP at $6.00/cwt Triggered?
Dec.	$6.50	—	—	—
Jan.	$6.10	no (Dec.-Jan.)		
Feb.	$5.80	no (Jan.-Feb.)	$5.95	yes (Jan.-Feb.)
Mar.	$5.80	yes (Feb.-Mar.)		
Apr.	$5.80	yes (Mar.-Apr.)	$5.80	yes (Mar.-Apr.)
May	$5.80	yes (Apr.-May)		
Jun.	$6.25	no (May-Jun.)	$6.025	no (May-Jun.)

Source: Based on data from "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012, p. 12.

Notes: Revised by CRS to accommodate text.

a. For evaluating if a DMSP trigger has been breached, use the higher one-month average margin for each consecutive two months. For calculating the DMSP payment reduction, a two-month rolling average is used.

b. For purposes of calculating and evaluating the DPMPP two-month average margins, the relevant periods are the January-February, March-April, May-June, July-August, September-October, and November-December combinations.

Table 5. DMSP Milk Payment Reduction Factors

Range =>	$5.00 < Margin ≤ $6.00 for 2 consecutive mos.	$4.00 < Margin ≤ $5.00 for 2 consecutive mos.	Margin ≤ $4.00 for 1 month
Milk payments are made to the greater of these =>	98% x (DMSP Base)[a] or 94% x (Actual Marketings)	97% x (DMSP Base) or 93% x (Actual Marketings)	96% x (DMSP Base) or 92% x (Actual Marketings)
No payment reduction is made if:	Actual Marketings < (98% x DMSP Base)	Actual Marketings < (97% x DMSP Base)	Actual Marketings < (96% x DMSP Base)

Source: ARFJA (S. 3240), Section 1434, and FARRM (H.R. 6083), Section 1434.

a. DMSP base is selected at signup as either (1) the average volume of monthly milk marketings during the three months immediately preceding the announcement that the stabilization program is in effect, or (2) the volume of monthly milk marketings for the same month in the year preceding the announcement.

Once the DMSP program has been triggered, then the payment reduction is calculated for each succeeding month that the program is in effect, using a rolling two-month average margin to determine which payment reduction factors are to be used. Increasingly larger DMSP payment reductions are required as the margin falls below $6.00/cwt. and $5.00/cwt. for any two consecutive months or $4.00/cwt. for any one month. The DMSP payment reduction factor remains at the largest reduction level reached during the period that DMSP operates, even if the margin rises above the lower $4.00 and $5.00 thresholds. For example, suppose that the margin fell below $4.00/cwt., triggering the maximum DMSP payment reduction (i.e., 96% of DMSP base or 92% of current marketings). As the margin climbs back up to $6.00/cwt., the payment reduction factor remains at the maximum level until the margin exceeds $6.00/cwt. for two consecutive months, whereupon the DMSP is shut off.

Example of a DMSP Reduction in Milk Revenues

Refer to the hypothetical data from **Table 4** where the margin falls below $6.00 for each of two consecutive months in February and March. In April, USDA would announce the implementation of DMSP payment reductions beginning in May. Suppose that the margin of $5.80 was the result of an all-milk price of $20.00/cwt. and feed costs of $14.20/cwt. The $5.80 margin fits within the $5.00 < margin ≤ $6.00 margin range from **Table 5**. Suppose also that a hypothetical participating dairy producer has a DMSP base of 8,200 cwt. per month and actual milk deliveries of 8,400 per month. Then the relevant comparative reduction factor products are:

98% of DMSP Monthly Base = 98% of 8,200 = 8,036

or

94% of Actual Milk Marketings for Month = 94% of 8,400 = 7,896

Milk payment reductions would be based on the greater of the above two factor products. Then, the handler payments to the producer on the total volume of milk marketed for the month (i.e., 8,400 cwt.) would be broken into two components as follows:

Total Value of Monthly Milk Payment = $20.00/cwt.[32] * 8,400 cwt. = $168,000

Value of Monthly Milk Payment to Producer = $20.00/cwt * 8,036 cwt. = $160,720

Reduction = Value of Monthly Milk Payment to USDA = $168,000 - $160,720 = $7,280

Turning Off the DMSP

Under both bills, once triggered, a DMSP payment reduction stays in place until one of a set of possible market conditions (referred to as *suspension thresholds*) is met—either the margins improve relative to certain criteria, or U.S. prices for two basic dairy commodities (cheddar cheese or nonfat dry milk) exceed world prices by certain relative amounts, or a combination of higher margins and price relationships occur simultaneously (**Table 6**).

H.R. 6083 includes an additional set of *enhanced suspension thresholds* that would apply if the stabilization program, DMSP, has been in effect for six consecutive months or more. These enhanced suspension thresholds use a set of lower U.S.-to-world price ratios to assess whether the DMSP should be suspended.

According to Andrew Novakovic and Mark Stephenson, the logic of the DMSP design hinges on the expectation that the DMSP, either through a demand effect or a supply effect, may cause the price of farm milk, and consequently the price of exportable dairy products, to increase. To prevent unintended negative consequences for U.S. dairy exports, exit triggers are arranged to terminate the program when the U.S. price gets too high relative to the world price.[33]

[32] This price would not necessarily be the USDA, NASS, reported all-milk price, but would be the relevant market price for fluid milk being offered by the particular handler receiving the milk deliveries.

[33] "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012, p. 14.

Table 6. DMSP Suspension Thresholds

(DMSP payment reductions are suspended if, for any margin trigger range, the U.S.-to-world price share of selected dairy products is equal to or greater than the designated %)

	Margin Trigger Range ($/cwt.)			
U.S.-to-World Price Share:[a]	Margin > $6.00 for 2 cons. mos.	$5.00 < Margin ≤ $6.00 for 2 cons. mos.	$4.00 < Margin ≤ $5.00 for 2 cons. mos.	Margin ≤ $4.00 for 1 month
Suspension Threshold Criteria				
U.S. Cheddar Cheese	any %	> 100%	> 105%	> 107%
U.S. Nonfat Dry Milk	any %	> 100%	> 105%	> 107%
Enhanced Suspension Threshold Criteria[b]				
U.S. Cheddar Cheese	any %	> 97%	> 103%	> 106%
U.S. Nonfat Dry Milk	any %	> 97%	> 103%	> 106%

Source: ARFJA (S. 3240), Section 1436, and FARRM (H.R. 6083), Section 1436.

a. U.S.-to-World-Price Share = ratio of U.S. product price to international product price expressed as a %.

b. The "Enhanced Suspension Threshold Criteria" are applicable if the DMSP program has been in effect for 6 months or more; FARRM (H.R. 6083), Section 1436(c).

USDA Study of the DMSP Market Effects

The Senate-passed bill directs USDA to conduct and report on a study of two specific potential effects of the DMSP program: first, the economic impact of DMSP throughout the dairy product value chain, and second, the impact of DMSP on the competitiveness of the U.S. dairy industry in international markets. A report based on the study is due no later than December 1, 2016, to both the House and Senate Agriculture Committees.

Debate Over the Market Stabilization Proposal

The DMSP market stabilization proposal has generated considerable interest as a dairy supply management program and is being debated by dairy producer groups which generally support it, and dairy processors who oppose it. The National Milk Producers Federation (NMPF), the largest U.S. dairy producer organization,[34] is a principal proponent of the dairy market stabilization concept. NMPF describes the purpose and need for DMSP as follows:[35]

> **What is the purpose of the DMSP?** The purpose of the DMSP is to reduce margin volatility for dairy producers. The DMSP acts as an early warning system that sends strong and timely signals to producers participating in the margin protection program that small temporary adjustments in their milk production need to be made to stave off long-term reductions in their overall margins. The DMSP is designed to act swiftly and infrequently to address brief market imbalances.
>
> **Why is any type of supply management needed in the U.S. dairy industry?** The DMSP does not fit the traditional definition of a supply management program. However, market stabilization

[34] NMPF represents over 32,000 U.S. dairy producers and their 30 member-based cooperatives. See http://nmpf.org/.

[35] See Foundation for the Future (FTF), NMPF, "Questions About Dairy Market Stabilization Program," at http://www.futurefordairy.com/faqs/dairy-market-stabilization-program.html

> is part of this proposal because there are times when imbalances occur in the marketplace that negatively impact dairy farmer margins. In 2009, dairy farmers did not overproduce their way into extremely low margins, but demand, both domestically and internationally, collapsed with the global recession. The low milk prices combined with high feed costs resulted in the lowest margins most producers have ever experienced. Situations like this ultimately correct themselves, but without timely and effective intervention, they can drag on too long and drag down too many farmers along the way.

The International Dairy Foods Association (IDFA) representing the nation's dairy manufacturing and marketing industries and their suppliers,[36] is a principal opponent of the dairy market stabilization program. IDFA argues that:

> A new government "Dairy Stabilization" program would routinely increase our domestic prices above international prices and make our dairy industry less competitive.... Government supply management programs thwart export growth. That's why no other U.S. commodity has limits on production.[37]

During the House Agriculture Committee markup of H.R. 6083, Representatives Goodlatte and Scott introduced an amendment (No. 085) that would have removed the market stabilization program from the dairy subtitle D while retaining the dairy producer margin protection program. In a "Dear Colleague" letter dated July 10, 2012, they argued that:

> A government supply management program arbitrarily penalizes consumers and dairy product manufacturers who respond to consumer demands, by uniformly requiring milk supply contraction and raising milk prices above not [*sic*] market clearing levels. The Dairy Market Stabilization Program, which our amendment eliminates, is the only U.S. commodity program that would allow this level of government market intervention in domestic commodity supply decisions.

In addition to removing the DMSP proposal, the Goodlatte-Scott amendment also would have modified the DPMPP program by (1) folding the BMP program into the SMP program; (2) eliminating the BMP annual fee; (3) expanding the margin threshold choice to include a minimum $4.00/cwt. option free for the first 4 million lbs. of annual milk production; (4) fixing the production history base for the life of the farm bill (i.e., no production growth is permitted); and (5) contracting the coverage percent to a range of 25% to 80%. A CBO score of the Goodlatte-Scott amendment (without DMSP) found savings of $47 million over the 10-year projection period (FY2013-FY2022), compared to $38 million in savings for H.R. 6083 (with DMSP). However, the amendment was defeated in committee by a vote of 17 to 29.

Summary of Dairy Policy Differences: S. 3240 and H.R. 6083

There are several fairly minor differences between the Senate and House dairy proposals that would have to be resolved in a conference agreement.

1. H.R. 6083 ends the MILC program immediately, whereas S. 3240 extends it for about nine months (through June 30, 2013).

[36] IDFA has a membership of 550 companies including 200 dairy processors and 330 companies that produce and supply processing equipment and materials. See http://www.idfa.org/.

[37] IDFA one-pager, "Why Give U.S. Competitors A Trade Advantage? Oppose Milk Supply Limits In The Farm Bill," at http://www.idfa.org/files/resources/trade_aspect.pdf.

2. H.R. 6083 requires that USDA announce the establishment and retroactive availability of a DPMPP program within 30 days of the 2012 farm bill being signed into law. S. 3240 has no retroactive option, but requires that USDA establish and implement a DPMPP program within 120 days of being signed into law.
3. H.R. 6083 has a slightly different fee structure for Basic Margin Protection that lowers the cost to larger farms.
4. H.R. 6083 has a slightly different premium structure for Supplemental Margin Protection that, in general, charges lower fees on bigger farms, and raises fees on smaller farms.
5. H.R. 6083 adds a second "enhanced" suspension trigger for the Dairy Market Stabilization Program that kicks in when DMSP has been in effect for six months or more.
6. Unrelated to the newly proposed programs, H.R. 6083 makes no changes to Federal Milk Marketing Orders, whereas S. 3240 mandates information clearinghouses and a study of end-use milk pricing.

Study Results of DPMPP and DMSP

Several preliminary empirical studies of early versions of the proposed dairy programs—including the elimination of current price and income supports and their replacement with the margin-based protection programs (BMP and SMP) and the dairy market stabilization program (DMSP)—have already been undertaken in an attempt to ascertain both the potential federal cost and the potential effectiveness of the new programs for delivering timely assistance to dairy operators while stabilizing dairy operating margins.[38]

The studies have generally concluded that:

- compared to the current dairy price and income programs, DPMPP will make payments less often, but will provide a stronger safety net in extremely low margin events;
- the combination of DPMPP and DMSP appears to substantially mitigate the dairy operating margin volatility;
- optimal program benefits are conferred for nearly all dairy farm sizes for participation at the $6.50/cwt. supplemental margin protection level (this results in large part because DMSP payment reductions will begin when the margin

[38] For market-scale results, see Charles Nicholson and Mark Stephenson, *Market Impacts of the Dairy Security Act (H.R. 3062) and the Dairy Provisions of the Rural Economic Farm and Ranch Sustainability and Hunger Act of 2011 (S. 1658)*, Dairy Markets and Policy (DMAP) Consortium, October 2011a; Scott Brown, *The Effects of a Modified Dairy Security Act of 2011 on Dairy Markets*, FAPRI, April 2012; and *Analysis of NMPF's Foundation for the Future Program*, FAPRI-MU Report #05-10, June 2010. For farm-scale results, see Charles Nicholson and Mark Stephenson, *Farm-Level Impacts of the Dairy Security Act (H.R. 3062) and the Dairy Provisions of the Rural Economic Farm and Ranch Sustainability and Hunger Act of 2011 (S. 1658)*, Dairy Markets and Policy (DMAP) Consortium, October 2011b; and Mark Stephenson and Andrew Novakovic, *Program on Dairy Markets and Policy Information Letter*, PDMP Briefing Paper 120-05, April 2012.

drops below $6.00/cwt., so margin protection effectively needs to be at least at the $6.00/cwt. level on average to offset milk payment reductions); and

- overall effects on milk supply, prices, and trade were relatively small; however, contradictory trade results emerged where one study found that milk exports declined slightly due to lower milk supply (Brown, April 2012), while another study found that net milk exports expanded due in part to slightly lower milk prices (Nicholson and Stephenson, October 2011b).[39]

Uncertainties...

A key uncertainty across the various studies is the level of dairy operator participation in the new programs. In general, the studies based on relatively high participation levels tend to find more positive program outcomes—for example, lower cost to taxpayers, and greater success at stabilizing operating margins.

Evaluating how dairy producers might respond or adjust their milk marketings under the market stabilization program has proven particularly difficult given the unique nature of DMSP and the lack of historical precedent regarding past supply management systems (see **Appendix**). Most milk processors are strongly opposed to any form of supply management that might restrict milk supplies, prevent full utilization of their investment in processing capacity, and limit their ability to meet growth in consumer demand wherever it may occur. Free-marketers oppose any government program that shelters the dairy sector from market forces, thus limiting flexibility and locking current resources into place.

And Questions for Policymakers

Are high feed costs a permanent market condition and, if so, should the dairy sector be sheltered from them by taxpayer intervention? On the other hand, if high feed costs are at least partly driven by federal biofuels policy, to what extent does the federal government have an obligation to protect milk producers from such high feed costs? Is supply management an essential part of a margin-based strategy? If a margin-based dairy program were to achieve high rates of participation, how costly could the program become in the absence of a supply management component?

[39] Ibid.

Appendix. Historical Dairy Supply Management Programs

The goal of dairy supply management programs is generally to enhance and stabilize farm-level milk prices by controlling the amount of milk marketed or to mitigate the increased production that would be stimulated by policy that supports diary product markets at a higher-than-market-equilibrium price. Unlike Canada and the European Union (EU), the United States has never implemented a mandatory dairy supply management program; however, the 1990 farm bill had a requirement that USDA implement a supply management program if federal dairy product purchases exceeded 7 billion lbs.—this requirement was never implemented. Since the mid-1980s there have been two government-sponsored and one industry-sponsored major voluntary supply management dairy programs in the United States, all funded in part through dairy farmer assessments.

U.S. Government-Sponsored, Voluntary Supply Management Programs

In the mid-1980s Congress authorized two voluntary dairy supply management programs—the **1984-85 Milk Diversion Program** and the **1987 Dairy Termination Program (Whole Herd Buyout)**.[40] Under the Milk Diversion Program, dairy farmers who reduced milk marketings 5% to 30% from a base level were paid $10/cwt. on the reduced marketings. The Milk Diversion Program cut milk production sharply in 1985, but had no long-term effect. Under the 1987 Dairy Termination Program, the government accepted bids from dairy farmers who were willing to slaughter all their dairy cattle and remain out of the dairy business for at least five years. The Whole Herd Buyout Program was more successful in moderating milk production trends, but the induced slaughter of dairy cows negatively affected beef markets.

Novakovic and Stephenson have pointed out that, in contrast to the Milk Diversion Program and Dairy Termination Program, which rewarded farmers for cutting back on milk production, the DMSP program punishes farmers for increasing milk marketings relative to a base.[41]

U.S. Industry-Sponsored Supply Management Programs

An industry-sponsored voluntary supply management program—**Cooperatives Working Together (CWT)**—was initiated in 2003 by the National Milk Producers Federation and remains ongoing.[42] Participating dairy farmers commit 2¢ per cwt. of milk marketed. Presently, participants in CWT include dairy farmers from every state, producing almost 70% of the nation's milk. CWT funds have been used for both herd retirement (the last round was conducted in 2010) and export assistance.

[40] "Dairy Policy Brief #4: Voluntary Supply Management," Food and Agricultural Policy Research Institute (FAPRI) and the University of Wisconsin, Madison, *Dairy Policy Briefs*, June 2006.

[41] "Dairy Provisions of ARFJA," Novakovic and Stephenson, April 2012, p. 17.

[42] For more information, see the Cooperatives Working Together website, at http://www.cwt.coop/about/about_whatis.html.

Foreign Government-Sponsored Mandatory Supply Management Programs

Canada and the EU have used marketing quotas which explicitly specify the maximum amount of milk that individual dairy farmers can sell and usually apply stiff economic penalties to any sales in excess of the assigned farm quota. The EU will gradually increase its dairy quotas until an entire phase-out of its milk quota system in April 2015 in accordance with implementation of its 2009 Health Check. Canada continues to maintain its milk quota system.

Potential Problems Associated With Supply Management Programs

Potential problems associated with voluntary supply management programs are adequate participation and funding (which is linked directly to participation), free riders (i.e., nonparticipants benefit fully from the success of any supply management program but without the supply limits), and some export market issues. Since CWT dairy product export support varies with market conditions, exports under this program may not be viewed as a reliable source by less price sensitive markets. In addition, there is some uncertainty about whether CWT export subsidies are compatible with World Trade Organization obligations.

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