

## U.S. DAIRY PROGRAMS: WHO PAYS AND HOW MUCH?

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The modern version of one of the oldest axioms in economics states, "There is no such thing as a free lunch." Indeed, any time the government sets up a program that benefits a particular segment of society—consumers, children, poor people, farmers, or whom-ever—some other group must bear a cost. Most often, the bulk of this burden falls on a diverse group we call taxpayers.

Political concerns for large and growing budget deficits have been paramount since the early 1980s. From 1981 through 1986, taxpayer costs of the Dairy Price Support Program (DPSP) averaged over \$2 billion annually. As a consequence, concern for budget outlays has had a major influence in shaping dairy programs during the past decade. This concern continues even though program costs have been much more modest in recent years.

There are substantial benefits of dairy programs, but also other, more subtle costs, that fall on dairy farmers, consumers, and other sectors. Alternatives to current programs also have associated costs. With some of these alternatives, the costs and benefits would be spread quite differently across various segments of society and the industry.

### ***Direct Costs of the Dairy Price Support Program***

The primary direct cost of the DPSP is the government's cost of purchasing manufactured products (see Leaflet P-1). In 1994 the support price of \$10.10 per cwt., the purchase price for butter is \$0.65 per pound, the purchase price for nonfat dry milk is \$1.034 per pound, and the block and barrel cheddar

cheese prices are \$1.12 and \$1.09 per pound, respectively. In fiscal year 1993, the CCC removed about 337 million pounds of butter, 317 million pounds of nonfat dry milk, and 13 million pounds of cheese from the commercial market. The total cost of these purchases was about \$315 million, excluding \$135 million in Dairy Export Incentive Program (DEIP) costs. The government also incurs storage and transportation costs for the products it buys. In fiscal year 1993, these costs totaled \$38 million. If products are resold in the commercial market, the money received offsets costs incurred. For example, in fiscal year 1993, income from sales totaled \$104 million. The vast majority of government inventories are used in donation channels, not for sales (see Leaflet P-4). Besides the value of the product, even donations often cost the government additional amounts for further processing and packaging. In fiscal year 1993, such costs totaled \$24 million.

Table 1 shows fiscal year, net government expenditures on the price support program for a recent 15-year period. In the preceding 28 years since the program's inception, government costs ranged from less than zero to \$714 million, but were most often in the \$200-400 million range.<sup>1</sup>

In the 1980s, taxpayer cost averaged \$1.6 billion annually. In sharp contrast, government costs have averaged less than \$500 million per year during the 1990s.

Government costs of dairy programs during the past several years as shown in Table 1 are somewhat misleading, because they do not include DEIP export bonuses. The DEIP program has cost taxpayers an

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<sup>1</sup> A negative cost of \$50 million was incurred in fiscal year 1950, the second year of program operation after its passage in the Agricultural Act of 1949. This was the only year that income from the sale of government stocks exceeded all other costs.

Table 1. Net Government Expenditures on Dairy Support and Related Programs, Fiscal Years, 1977-92.

Year Beginning July 1	Net Producer Payments <sup>1</sup>	Net Support Purchases <sup>2</sup>	Section 4(a) <sup>3</sup>	Total (Excluding Special Milk)	Special Milk Program <sup>4</sup>
(million dollars)					
1978-79		244.3	6.3	250.6	134.1
1979-80		1,274.0	5.8	1,279.8	159.3
1980-81		1,967.2	7.5	1,974.7	104.4
1981-82		2,231.3	7.9	2,239.2	22.9
1982-83	(253.8)	2,592.0	8.4	2,600.4	14.9
1983-84	(481.0)	1,588.1	9.4	1,597.5	16.0
1984-85	255.8	2,168.8	16.2	2,185.0	15.5
1985-86	202.1	2,401.9	14.6	2,416.5	16.5
1986-87	156.5	1,221.7	15.8	1,237.5	17.5
1987-88	185.2	1,334.7	11.5	1,346.2	19.9
1988-89	155.0	693.4	18.6	712.0	18.5
1989-90	180.9	504.8	18.5	523.3	19.2
1990-91	51.8	839.3	15.6	854.9	19.8
1991-92	(96.0)	235.7	16.2	251.9	19.5
1992-93	(16.8)	252.7		252.7	

<sup>1</sup> Milk diversion and/or termination payments less producer deductions and/or reductions (assessments). (Negative numbers in parentheses.)  
<sup>2</sup> CCC support purchases and related costs (for processing, packaging, transporting, and storing dairy products), plus net payments to producers and net expenditures for certain red meat purchases, less proceeds from sales to commercial buyers for domestic use and for export, U.S. military agencies, foreign government and private welfare agencies, and Section 32 programs.  
<sup>3</sup> Purchases of dairy products at market prices under Section 709 of the Food and Agriculture Act of 1965, and Section 4(a) of the Agriculture and Consumer Protection Act of 1973, for domestic school lunch and welfare uses.  
<sup>4</sup> Expenditures to increase milk consumption by children in schools, child-care centers, and similar institutions.

**Source:** Agricultural Stabilization and Conservation Service, USDA.

average of \$140 million over the past three years. Arguably, there is a near pound for pound tradeoff—products exported under DEIP might otherwise have been sold to the CCC under the DPSP. However, there is not a dollar for dollar tradeoff. Recent DEIP bonuses have averaged about \$.20 for butter, \$.40 for NDM and \$.55 for cheese—compared to CCC purchase prices of \$.65, \$1.034 and \$1.12 respectively. Also, producer price impacts of DEIP are probably much greater than those of DPSP purchases, as all products are removed from the domestic market.

The National Milk Producers Federation has estimated that DEIP sales result in producer price improvements of around \$.50 cwt. The fact that in this regard DEIP provides “big bang for the buck” has helped spur arguments for producer operated “self-help” programs.

It should also be pointed out that DEIP program impacts should not be viewed as parallel to those of the much larger Export Enhancement Program (EEP) for

grains. Some studies have suggested that EEP has had only a modest impact on farm prices and U.S. grain exports. In contrast DEIP has about doubled the small amount of U.S. dairy exports. The U.S. was a major player on world grain markets prior to EEP subsidies, thus marginal impacts would be expected to be less.

Taxpayers no longer pay for the total cost of the dairy program. As milk producers are acutely aware, a second group that has borne direct costs of programs in recent years has been dairy farmers themselves. During the Reagan years, the philosophy arose in Washington that the beneficiaries of government programs ought to pay a bigger part of the cost. Under many government programs these costs are called “user fees.” In the dairy program, they have been termed “assessments.”

Since 1983, producer assessments have totaled about \$2.7 billion. Producer assessments in fiscal year 1993 were \$202.2 million. USDA reports assessment revenues under a category they call “milk marketing

reductions.” These “reductions” have been required under seven pieces of legislation. In all but two cases, assessments were required purely for budget purposes. In the other two cases, assessments were justified as adjustments to supply control programs—the Dairy Production Stabilization Act of 1983 (milk diversion program) and the Food Security Act of 1985 (dairy termination program). Negative net producer payments in Table 1 for 1982-83, 1983-84, 1991-92, and 1992-93 indicate that various assessments from producers exceeded payments. Although few producers like assessments, most producer groups have argued that a small assessment is far preferable to a price support cut, which would have to be quite large to produce a similar budget benefit.

The 1990 Omnibus Budget Reconciliation Act sets the current rate of assessment at \$.1125 per cwt. Because the assessment is refundable to producers who don't increase marketings but total assessment revenue is required at a certain level, the per cwt. assessment is increased after refunds have been calculated and made for the previous calendar year.

### ***Indirect Program Costs and Benefits***

While costs to taxpayers and producers are the most obvious, there are others. Dairy programs also lead to indirect transfers of revenue among various segments of the industry. These costs and transfers have been studied by a number of economists, and the studies have prompted considerable debate.

The first and most clear-cut additional impact is the change in farm and consumer prices. As stated by a prominent dairy industry economist, the trivial, short-run answer to the question of whether the price support program enhances prices is yes. Farm, wholesale, and retail prices would have fallen drastically if the government had suddenly abandoned the purchase program when surpluses were very large in the 1980s.

How much? In 1977, net government purchases were 5.1 percent of total milk marketings—close to levels of the last few years. At the time, USDA estimated that to reduce purchases from the 1977 level of 6.1 billion pounds to 2.2 billion pounds would have required a \$.69 reduction in the support price. Corresponding changes in consumer prices for a gallon of fluid milk and a pound of cheese would be about 6 cents. This 6-cent reduction and similar retail price changes across all dairy products represented \$540 million that consumers “transferred” to dairy farmers.

During the 1980-83 period, when CCC removals averaged 10 percent of marketings, USDA estimated that milk prices would have needed to be 15-20 percent lower to limit government purchases to 2.2 billion pounds. Some would say this means that consumers were paying 8 to 10 percent more than they otherwise would have been. Compared to 1977, it could be said that the cost of the dairy program to consumers (and the benefits to producers) was estimated to be two or three times greater.

In the past several years, with market prices consistently above support and purchases consisting mainly of milkfat, most economists conclude that consumer transfers to producers have been quite modest.

The fact that the price support program has transferred money from consumers to dairy farmers in the form of higher prices than otherwise would exist begs the question. Over the long haul, how high would prices be without a support program? The purpose of the program is to stabilize prices and provide an income floor for dairymen, which implies short term costs to consumers. The real question involves the level of price and income enhancement versus market stabilization (see Leaflet P-1). Is the program actively trying to raise prices or is it trying to stabilize prices around an acceptable level? When the price support is near the market clearing level, a powerful argument can be made that the benefits to consumers are greater than costs. Reduced risk levels and stable prices generate an upward supply shift that means more milk at lower prices for consumers. But when the support price results in market imbalances such as occurred in the early and mid-1980s, this argument becomes much weaker.

This raises an interesting question about the current \$10.10 level of support, which is above USDA's estimate of cash costs of producing milk in every region of the country. CCC purchase prices have been well below market-clearing levels except for butter. Manufacturing milk prices have not touched support levels since 1987. Many refer to the current program as “market-oriented.” “Destabilized” would be an equally appropriate description. The current program has benefitted taxpayers by costing less, but appears to have cost producers and consumers in terms of much more volatile prices.

Recent research findings by USDA provide strong evidence of additional consumer benefits of the price stability afforded by both orders and DPSP. Retail price adjustments to farm price changes were found to be

“asymmetric.” When farm milk prices fall, fluid milk prices at retail take 10 quarters to fully react—and the adjustment is just \$.92 per cwt. for each dollar the producer price drops. But when farm prices rise by \$1.00, retail prices react much more rapidly. Further, the price increase at retail is \$1.73 for each dollar the farm price goes up.

There is one final category of potential price support program costs. Economists call these “deadweight,” or efficiency losses. If the price of milk is propped up relative to other commodities, farmers will devote more land, labor and capital into milk production and less into other enterprises which would have been more attractive in the absence of the dairy price support program. For example, a case can be made that farmers moved either into or out of grain farming relative to dairying depending on when grain policies were more or less attractive than dairy policy. We are not aware of recent studies of efficiency losses from dairy programs. Estimates in the 1970s suggested that “deadweight” costs were quite small compared to taxpayer and consumer costs.

### ***Costs and Benefits of Federal Milk Marketing Orders***

Milk marketing orders result in differing costs and benefits among various industry participants. Economists have concluded that grade A milk producers in all regions are subsidized at the expense of manufacturing grade (grade B) producers, because without marketing order classified pricing and the ability of all grade A producers to share the class I pool, grade A milk prices would be lower and grade B prices would be higher. (Grade A and B prices would still differ because of production costs and quality differences.) Needless to say, this cross-subsidization has encouraged conversion to grade A. As fluid utilization in affected orders has subsequently declined, the financial incentive has been greatly reduced.

Similarly, the above argument leads to the conclusion that fluid milk consumers pay higher prices than without the order program, whereas manufactured product consumers benefit through lower product prices. Based on earlier studies, a reasonable guess as to the magnitude of these transfers between consumers of fluid and manufactured products might be \$500 million per year, which is surely a large sum, but it still equals only 1 percent of total consumer expenditures on dairy products. To the extent that the vast majority of people

consume both categories of products, the effect monetarily is pretty much a wash. On the benefits side, because fluid milk purchases are generally believed to be less responsive to price changes than manufactured product sales, total revenue for all milk producers is increased by the classified pricing system used in the order program. Still, the price difference does influence the combination of fluid versus manufactured products purchased. However, there is little reason to believe that price differences by class use would not exist in the marketplace without orders.

Generally, federal order class I differentials are higher as distance increases from the Upper Midwest. In the absence of the order program, farmers in the Southwest and New England might receive lower prices. Producers in the Lake States, Corn Belt and Plains might get slightly higher prices. Federal marketing orders and state regulations in the past have discouraged the use of reconstituted milk. Reconstitution could also lower prices in regions distant from major excess supply areas, and increase them somewhat in the latter. These two issues were a major focus of recent national hearings. The 1992 decision based on these hearings recommended no changes in differentials, but barriers to reconstitution were lowered. (See Leaflets O-6 and O-7.)

The order system incurs administrative costs of about \$30 million per year. Because these costs are covered by a small assessment on processors, it is often argued that the program is industry-funded. In truth, as with any wholesale cost, these costs are ultimately passed on to and shared with consumers.

At least one dairy economist has noted that a primary argument offered by producers in favor of federal orders is that markets are not perfectly competitive. Specifically, processors are concentrated and powerful enough relative to producers that they would have a monopolistic impact on prices. If federal order pricing is compared to perfect competition, one can suggest the kinds of benefits and costs discussed above; however, if we believe markets would be imperfect in the absence of regulation—to the detriment of producers and consumers—then the benefits of regulation take on an additional dimension.

### ***Import Restrictions***

U.S. dairy import quotas, which currently limit imports to about 2 billion pounds, in and of themselves have not imposed an appreciable cost. They are simply

a necessary adjunct to the price support program. Without the quotas, dairy product imports would likely flood the country. Taxpayer costs would skyrocket, but the beneficiaries would be farmers and manufacturers in other countries.

The price support program could not exist without import quotas or a similar trade restriction. Thus, the most important effect of quotas relates to prices. Without a support program and trade restrictions, U.S. markets would be open to foreign competitors. If they can provide good products at a lower price, consumers would probably be happy and U.S. processors and farmers would be hurt. European exports of dairy commodities are heavily subsidized. Under the dairy policy regime that has existed in the U.S. and other major dairy countries in recent years, free trade would have been disastrous to both the industry and U.S. taxpayers.

Many feel that the U.S. dairy industry will be highly competitive in a truly free world market. However, GATT doesn't mean free trade. The provisions call for a gradual phase-down of domestic supports, export subsidies, tariffs, and quotas. The immediate effect will be to increase quota access to U.S. markets by about 1.5 billion lbs. However, expansion of the quota under GATT will still allow U.S. prices to exceed world trade prices.

### ***Who Should Pay and Who Should Benefit?***

There are no easy answers to questions with the word "should" in them. In a democratic society, the answer changes as the mood or priorities of the people swings. In general, U.S. society has adopted the premise that the wealthy should pay more, which is reflected in our progressive income tax structure. How much more is a question, because the government does not want to choke off the more affluent segment's motivation to save and invest. So the result is an economic and political system that transfers some of the wealth from the better off to those who are less fortunate. We do not do this nearly to the extent that some more socialist countries do, such as the Scandinavian nations, Great Britain, and formerly, the Soviet Union.

Poorer people tend to spend a much higher proportion of their incomes on food than do wealthy people.

Because, on the average, taxpayers are more affluent than food consumers, it is in keeping with the country's underlying philosophy that agricultural policies generally have shifted some wealth from taxpayers to farmers. Farmers face high risks in producing our nation's most fundamental necessity, and until recent years, made less income than the typical American. Without taxpayer-funded farm programs, farm risks and, therefore, farm costs would be higher. Consequently, farm and food prices would have to be higher. Other countries often support agricultural programs through higher consumer prices. Our method of using tax money is one reason our farm programs have been called a "cheap food" policy.<sup>2</sup> The DPSP combines features of taxpayer financing (buying dairy products) and consumer financing (higher prices). Hence, the net effect on any one person or group is hard to generalize.

Taxing taxpayers, as opposed to food consumers, has an additional advantage of being highly visible and subject to annual review as Congress debates the federal budget. Consumer costs tend to be less visible. Needless to say, concern about the federal deficit and waning support for agricultural commodity programs have put pressure on dairy programs in recent years.

### ***Impacts of Alternative Programs***

As the previous discussion has shown, dairy program costs are paid by both taxpayers and dairy product consumers, and to a lesser extent, dairy farmers themselves. Alternative programs have been proposed. It is important to note that these alternative programs would shift both the level and impact of program costs and benefits.

*Voluntary Supply Control.*<sup>3</sup> Voluntary supply control measures tend to have high budget costs. The "carrot" offered must be attractive enough to entice producers to remove resources from the industry. The burden of voluntary supply control falls generally on the taxpayer, unless the program is partially or fully self-funded through assessments.

To the extent a voluntary control plan drives prices up, consumers share in the costs while all dairy farmers benefit. The failure of such schemes to work over the long haul places most of the burden on whom-ever finances the program. The industry funded over 90

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<sup>2</sup> There are a few exceptions to this general rule. In the cases of sugar, peanuts, and tobacco, the major burden of government commodity programs has fallen on the consumer. In the case of tobacco, which is bad for you, it can be argued that price increasing policies are entirely appropriate because they reduce consumption. All three of these programs have been hotly debated over the years.

<sup>3</sup> See Leaflet P-7 for a more complete discussion of this topic.

percent of the cost of the Milk Diversion Program and about one-third of the cost of the Dairy Termination Program. Some would argue that the main impact was simply a shifting of money from one milk producer's pocket to that of another, particularly for the MDP.

However programs are financed, farmers will not benefit equally. This is, of course, true of any policy. Indeed, helping one type of farmer more than another may be an explicit or implicit objective.

Voluntary supply control has differing regional impacts. For example, both the MDP and the DTP attracted high participation in the South, where variable out-of-pocket costs are higher because of heavy reliance on purchased feed and hired labor. Both programs threatened short-term supply adequacy in markets with tight supply-demand balance.

Finally, voluntary supply control measures can have short term price impacts on farmers and industries outside of the dairy sector. For example, the cattle industry was compensated under the DTP by government purchases of an additional 500 million pounds of beef to minimize the impact on cattle prices, even though the longer run impacts of the program may have been pretty much revenue-neutral for beef producers. In the event of another such program, not only cattlemen but pork producers and broiler growers will be calling "foul." To the extent Congress reacts to such protests, potential costs in the form of lower prices are shifted from these industries to taxpayers.

*Mandatory Production Controls.*<sup>4</sup> With quotas or two-tiered pricing, huge shifts could occur in both the level and incidence of program costs and in the benefits to dairymen.

The foremost difference between the current system and a full fledged quota program is that most, if not all, of the costs of the program would be shifted from the taxpayer to the consumer. To many, this is viewed as an advantage, as it "solves" the problem of high budgetary expenditures. To others, it is seen as a major shortcoming: not only does it hide the problem, it shifts the full burden to a group that is less able to pay. The level of support for the industry and the comparable burden on consumers would depend on the aggregate level of quota, the quota rules, and the quota and overquota prices. Under most of the plans traditionally put for-

ward, consumer costs would probably increase more than taxpayer costs would decline.

Beneficiaries of the program would be existing producers. Future generations of dairymen would have to buy into the system, so any potential gains in net income for them would be, in effect, wiped out. If quotas are made freely transferrable, new entrants must directly buy the "right to produce," as in Canada. But if quotas are not transferrable, the value simply becomes built into the costs of land, cows, and facilities, as has happened in the European Community.

Deadweight efficiency losses, a minor issue under the current program, could be a major burden under mandatory supply control. Geographic distortions in supply and demand would probably occur. Excess capacity at all levels of the industry would be created, increasing production, processing and distribution costs. As with voluntary supply control, to the extent that quotas lead to the slaughter of additional dairy cows, other meat producers would also suffer short term losses because of lower prices.

*Target Prices and Deficiency Payments.*<sup>5</sup> In its purest form, the incidence of costs and benefits of a program based on target prices and deficiency payments would be just the opposite of mandatory supply management. The entire burden of the dairy program would then fall on taxpayers rather than on consumers. Tax revenues would go to dairy farmers in the form of direct payments. The government could shut down its purchase and storage operations. As pointed out in Leaflet P-9 this might add to overall industry costs, as the private sector would have to take over the costs of intra-year supply-demand balancing. Federal budget expenditures would also be higher than the current program for a comparable level of price support.

If implemented with a voluntary supply control feature (as is the case for other commodities using target prices), a portion of the cost would be pushed back to dairy product consumers. On the benefits side, Leaflet P-9 points out the strong possibility of limiting payments to larger farms, a feature unavailable with the current program. However, if payment limits were part of a target price program with supply control measures, the limits might cause larger producers to be nonparticipants in the program. This would limit the effectiveness

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<sup>4</sup> See Leaflet P-8 for a more complete discussion of this topic.

<sup>5</sup> See Leaflet P-9 for a more complete discussion of target pricing.

of the supply control feature. The major benefit of a program using only cash subsidies for dairy farmers' income support would be lower consumer prices. The more dairy farmers got from Uncle Sam, the less they would need to get from the marketplace.

*Dairy Board.*<sup>6</sup> A final option that has surfaced is a producer-operated board. This option could involve several of the policy tools cited above; it refers especially to how a policy is administered. If such a board were given supply control authority, its impacts would be much the same as with mandatory supply control. If its role were limited to the export market, its impact would be limited to modest price enhancement as a tradeoff to eliminating or reducing taxpayer costs. The philosophic issues raised with the marketing board concept may be as important as the economic issues. Administrative costs would be borne by farmers under dairy board options that have been proposed.

### **Summary**

Several years ago a Wall Street Journal editorial stated that the combined taxpayer and consumer costs of dairy programs from 1980 to 1987 exceeded \$1,000 a family; "enough to buy a cow." The article overstated program costs (taxpayer costs were actually about \$260 for a family of four, enough to buy a calf) and ignored the benefits of the programs, including the fact that over 99 percent of Americans don't want to milk a cow. The current program costs about one-fourth as much as in those years. Nevertheless, our dairy programs have cost a great deal of money at times, and it is important to recognize the several ways in which we all pay for these costs. Just as important, alternatives that have been put forward to replace current programs would also have costs. The way costs would be borne and the benefits shared under these program options may be more important than the magnitude of the cost.

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<sup>6</sup>See Leaflet P-10 for a more complete discussion of this topic.