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ALTERNATIVE SOLUTIONS TO THE DAIRY PROBLEM AND THE ROLE OF THE AGRICULTURAL ECONOMIST IN POLICY FORMATION AND ANALYSIS

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ABSTRACT

Dairy product markets have been burdened with excess supplies since late 1979. The principal cause of these surpluses is overly high government price supports. This situation can be traced to a series of policy decisions made in the mid-1970s.

The evolution of dairy policy during the last 10 years is examined and the implications of recent policy proposals are explored. The contributions of agricultural economists to the formulation of rational dairy policy is discussed and suggestions for improving their contributions to and influence on policy are made.

INTRODUCTION

In a few years from now we may see a press release from the office of the Secretary of Agriculture that says something like this:

> "The Secretary of Agriculture today called for bold new initiatives and renewed efforts at working together to solve the dairy problem. Speaking at the commencement exercises of a small midwestern college, the Secretary appealed to the various segments of the dairy industry to put aside their personal differences and to work together in common cause to arrive at a solution to the persistent problem of excess supplies that have burdened the industry since 1980. 'We cannot afford to wait any longer,' the Secretary told the Class of 1986."

Perhaps the problem of surplus milk will be corrected by 1986, but recent history and current developments give us reason to wonder if such might not happen.

The objectives of this paper are to examine the economic and political climate that has surrounded the dairy sector for the last decade, explore the implications of the latest proposal for dairy price support policy, and discuss the role that agricultural economists have played and could play in the future.

HOW DID WE GET HERE?

People who never thought much about the dairy industry or dairy policy are now aware that there are serious economic problems in the dairy sector. Many point to Congress' decision in 1979 to continue its policy of supporting prices at no less than 80% of parity and updating the support price semiannually as the historical turning point. Roots of the current problem can be found a few years earlier.

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The data in Table 1 illustrate the situation. Beginning in late 1972, several factors, not the least of which were the Russian grain deal and President Nixon's price policies, converged to create a domestic shortage of dairy products. In 1973, annual milk production dropped 4.5 billion pounds or almost four percent; production remained at that level for the next two years. During this same period, commercial use of milk remained basically unchanged. This rapid decrease in production and more or less constant commercial disappearance marked an almost unprecedented period of domestic shortage. In 1972, domestic milk production exceeded disappearance by 3.6 billion pounds or three percent. Departing from this more or less typical situation, disappearance actually exceeded production in each of the next three years. The domestic shortfall reached 1.5 billion pounds or over one percent by 1975.

The tightening of milk supplies and demands that began in late 1972 would normally be expected to trigger an increase in milk and dairy product prices, and they did increase somewhat. However, this was a time when rising prices were not particularly popular. President Nixon was making every effort to control price rises and Secretary of Agriculture Butz was advocating a de-emphasis of agricultural price support programs. Hence, increases in support prices for milk were resisted and lagged increases already made in the market place (see Table 1). To meet demand while limiting price increases during this period of domestic shortage, the Administration chose to increase drastically imports of American cheese, butter, and nonfat dry milk, the levels of which are restricted by quotas. Although perceptions of the actual impact of this move on farm prices and incomes may have been exaggerated, dairy farmers were clearly very displeased with this approach to balancing supply and demand.

The backlash to the policy decisions made from 1972 through 1975 is a primary cause of our current problems in the dairy sector. In 1975 presidential candidate Carter sought dairy farmer votes by promising a significant increase in the support price for milk. Unfortunately, by the time President Carter fulfilled this campaign pledge in 1976, increased milk prices were no longer warranted by existing conditions. It was obviously much harder in mid-1976 than it is now to recognize that market forces were bringing supply and demand back into relatively good balance; nevertheless, factors did point to that. Commercial stocks were returning to normal levels, production was increasing dramatically, and large import levels had been discontinued. The President's action to increase the support price was based on market conditions one to three years earlier, not on prevailing conditions.

Many economists predicted that the support price increase would lead to overproduction, large CCC purchases of dairy products, and high

Table 1. U.S. Milk Supply, Utilization, and Farm Prices

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
Supply											
Production	119.9	115.4	115.6	115.4	120.2	122.7	121.5	123.4	128.5	133.0	135.8
Imports	1.7	3.9	2.9	1.7	1.9	2.0	2.3	2.3	2.1	2.3	3.0
Utilization											
Disappearance[1/]	116.3	115.8	116.3	116.9	119.3	118.9	121.5	122.7	121.5	122.8	125.3
Net Increase Commercial Stocks	-0.1	1.2	0.9	-1.9	1.6	-0.4	-0.4	0.9	0.4	-0.4	-0.8
Net Government Removals	5.3	2.2	1.3	2.0	1.2	6.1	2.7	2.1	8.8	12.9	14.3
Net Government Removals as a Percent of Production	4.4	1.9	1.1	1.7	1.0	5.0	2.2	1.7	6.8	9.7	10.5
Farm Prices	(dollars per hundredweight, at average fat test)										
All Milk	6.07	7.14	8.33	8.75	9.66	9.72	10.60	12.00	13.00	13.80	13.55
Grade B Milk	5.08	6.20	7.13	7.63	8.56	8.70	9.65	11.10	12.00	12.70	12.67
Support Price	4.93	5.34	6.33	7.36	8.06	8.82	9.43	10.72	12.33	13.12	13.10

Source: Dairy Outlook and Situation, U.S. Department of Agriculture.

1/ Includes commercial disappearance and farm use.

government expenditures. In early 1977 it looked like these predictions would come true; nevertheless Congress--not wishing to be outdone by the President--ignored market signals and passed legislation that promised further and more frequent increases in the support price. In 1976, USDA net purchases of dairy products equaled less than one percent of domestic milk production. In 1977, this figure jumped to almost five percent. Fortunately, but for reasons still not fully understood, aggregate commercial milk use increased a hefty 2.3 percent and milk production dropped one percent in 1978. This cut USDA purchases as a percentage of production more than in half. Although production turned upward again in 1979, commercial disappearance also increased significantly and net removals by the USDA declined. As these events unfolded in 1979, Congress had to decide whether it would extend the price support legislation it passed in 1977. Many economists argued against an extension, but by this time their credibility had been damaged and the tightening supply situation did not enhance their credibility. In late 1979, Congress chose to continue the 1977 dairy policy through 1981.

Shortly after Congress enacted this extension the predictions of many economists finally came true. Production jumped four percent in 1980 and continues to increase annually, although not as rapidly. Since 1979, commercial use has not kept pace with production and USDA net removals have grown to unprecedented highs. By early 1981, a new Administration and Congress realized that the increases in support prices called for by the 1979 legislation would only fuel the fire. In April, 1981, a scheduled price rise was canceled. In October, 1981, the Agriculture and Food Act was passed. The most notable aspect of this bill is that it unlinked the support price for milk from parity prices for the first time. Rather than specifying a minimum support price as a percentage of the parity price for milk, the dairy provisions of that bill at first held the support price constant then increased it rather modestly over time to specific dollar levels. Although the support price was increased as required on October 1, 1982, Congress recognized that this increase was not needed and soon passed legislation to replace the dairy price support policy it had enacted only one year earlier. The dairy amendments to the Omnibus Budget Reconciliation Act of 1982 called for a continued freeze in the support price and the now famous, or perhaps infamous, program of directly assessing farmers for part of the cost of the price support program.

With the exception of 20 days in October, 1982, the support price has remained at the same level since October, 1980; yet the surplus of dairy products continues to grow. Obviously other factors including declining feed prices in 1982, poor agricultural alternatives, and a weak economy in general have contributed to this problem. Nevertheless, the principal factors responsible for dairy product surpluses since 1980 are the policies begun in 1976. Under these policies, price supports were set higher than necessary to balance supply and demand. They were adopted to redress the real or perceived wrongs of the past few years not to anticipate the needs of the future.

CURRENT SOLUTIONS

That prices were being held too high has been evident for at least two years. It is also evident that a political solution to this seemingly simple economic problem has not been simple at all. For the last two years a political gridlock has existed and the focal point of this traffic jam has been the question of whether a drop in the support price is an appropriate solution to the problem of excess milk supplies. The Administration takes the view that it is, and it has generally been supported by the Senate and dairy processors. Dairy cooperative leaders have, with few exceptions, strongly opposed cutting the support price and have proposed various schemes that would reward producers who decreased production and/or penalize those who increased their production. They have generally been supported by the House of Representatives.

The respective positions are diametrically opposed. There have been few opportunities for compromise until recently. In the last couple of months a compromise proposal has emerged that has a chance of becoming the third revision in dairy policy in as many years. If enacted, it will represent a significant departure from the policies that have guided the price support program since World War II. At this time it is not at all clear that this compromise package will become law. As a compromise, it has features that are acceptable to some and unacceptable to others. Last minute efforts are underway to scuttle the compromise entirely. Whether this bill passes or not, it provides a good basis for discussing the alternatives.

The proposal's provisions combine elements of the current law and the leading alternatives. To relieve immediately part of the cost of the program, 50 cents would be collected from farmers on each hundredweight of milk they market. Authorization for the assessment would expire at the end of 1984. This is comparable to the first assessment under current legislation; however, the new assessment would be mandatory. In addition to the assessment, the support price would be reduced 50 cents per hundredweight, with possible future reductions in 1985 after the assessment provision expires. This price reduction is the course of action that the Administration has been advocating. The third and fourth components of the compromise program come from proposals advanced by dairy cooperative leaders. They are a so-called paid diversion program and a program for increasing expenditures on generic dairy product promotion. Under the paid diversion program, farmers who agreed to reduce their marketing below their base period level would receive $10 per hundredweight on the difference between base and their actual marketings. Payments would be made for reductions relative to one's base of no less than 5% and no more than 30%. The paid diversion program would begin in October, 1983 and run through December, 1984. Under the promotion program, farmers would pay up to 15 cents per hundredweight on all milk sold. These funds

would support generic promotion of dairy products. At first the promotion deductions would be mandatory, but they would expire in September, 1985 unless voluntarily continued by producers.

What would be the impact of these plans if enacted? The answer to this popular question is pivotal to the policy debate and is the subject of considerable disagreement. Recognizing this to be the case, let us consider the components of the plan.

Most analysts have been skeptical of generic promotion; however, recent research by Kinnucan and Forker suggests that the 15 cents per hundredweight promotion deduction may be the most successful part of the package. This deduction may generate about $140 million new dollars annually for advertising, which is probably twice what is currently spent on generic promotion. Based on results of earlier studies, Kinnumcan and Forker project a potential increase in dairy product sales of about four billion pounds, which could cut the current surplus by about 30%. There are many problems yet to be solved in determining how to administer the funds that would be collected, but it seems that this might be an experiment worth trying.

These reductions in the support price and the assessment should reduce production one to two billion pounds and increase consumption by perhaps half that amount, thus reducing the surplus by two to three billion pounds. These price cuts alone will fall far short of rectifying the problem. Given the current levels of dairy product stocks, a price cut of two to three dollars may be required to balance supply and demand by the mid-1980s. If the promotion program is as successful as Kinnucan and Forker indicate it may be, these two parts of the compromise package could cut the current surplus almost in half. Even under the best of circumstances, promotion programs or moderate price cuts would take a few months to have an effect.

The impacts of the paid diversion plan are harder to predict. There is no question that the $10 per hundredweight diversion payment is extremely attractive for many farmers, but how much production will actually be eliminated and for how long is not at all clear. Studies conducted by Boynton and Wellington show that quite a few producers currently market less milk than they did during their base periods; they could receive diversion payments without any further reductions. Another sizeable group of producers have expanded their milk production so much relative to their base that they are better off not participating in the diversion program. The remaining farmers have incentives to reduce their marketings and participate in the program, but some may find ways to circumvent the production reduction requirements of the paid diversion program. The relatively short duration of the program is another factor that may reduce the attractiveness of the program. Many farmers will want to delay culling until after their cows freshen this winter and spring. They may decide it is unprofitable to do extra culling in 1984 if they want to return to 1983 production levels in 1985.

To the extent that it is successful in reducing production, the paid diversion program may create some additional problems. These would stem from the fact that this program does more to reduce incentives to produce than it does to reduce incentives to sell dairy products to the government. Reductions in the support price for milk that are translated into reduced USDA purchase prices for dairy products will make the government a somewhat less desirable outlet for those products, but the planned cuts are not very large, especially in the beginning of the program. Manufacturers will find it profitable to offer higher farm prices to maintain milk supplies in the face of government incentives to reduce production. This will permit them to keep plants operating near capacity, and they can still sell products to the government as well as commercial outlets. In other words, milk prices may rise under this program and would certainly be higher than the cut in the support price would imply.

The next round of problems can be anticipated in 1985 when the diversion payments stop. Supporters of this approach claim that a voluntary paid diversion or set-aside type program combines speed and fairness in reducing production. They argue that it will not devastate the dairy farm sector the way a severe price cut would, and farmers would quickly respond to supply control incentives. They liken this approach to the various comparable programs used for grain farmers, most recently the PIK program, and they point to the past successes of those programs.

That past and present grains policies have been or will be successful is probably subject to some debate, but there are more important weaknesses to these arguments and analogies. It is probably true that artificial incentives to reduce production can be designed to work more swiftly than a moderate price cut and that the adjustment process will be less painful, at least for those who would otherwise be destined to exit the dairy business. Unfortunately, this approach is costly and provides only temporary relief.

The analogy to grain policy points out both problems. Few would claim that set-aside programs are inexpensive; however, they have been deemed to be worth the cost of dealing with a temporary glut. Production surpluses are fairly common to the grain sector, but they are often due to unexpected, short-term abnormalities, such as unusually good yields or large drops in world demand. If dairy surpluses were caused by similar factors that were likely to return to normal levels in a year or so, one could support an approach designed to deal with a short-run problem. This does not characterize the current dairy situation, however. Dairy surpluses are of a much more systemic, long-run nature, and the conditions causing them cannot be expected to disappear after a one- or two-year set-aside program expires. If normal increases in production per cow take place in the next few years, the situation will worsen considerably; the potential for dramatic, biotechnologically-induced increases in production per cow over the next 10 years make the outlook almost frightening. This prospect

and the fact that there seems little reason to be hopeful that the political forces will be any more successful when the new four-year agricultural bill is to be debated in 1985 make it quite possible that the problem of overproduction will still be a topic of discussion in 1986.

Advocates of the compromise package, especially of its paid diversion component, hope that it will be an easier path to a longer run adjustment than a more market oriented price cut would be. Whether this program will lead to a satisfactory long-run balance between supply and demand and just how easy a path it provides are both unclear. All in all, it is quite possible that the current surplus could be eliminated by this program, but the solution could be temporary, expensive, and accompanied by other problems.

LESSONS FOR AGRICULTURAL ECONOMISTS

These historical and ongoing events bear messages to dairy industry analysts and agricultural economists in general. In its simplest form the basic message to academia is this--we have not been very effective in promoting rational policy choices. There are some important corollaries to this message that I would like to explore.

Dairy Policy in Transition

From its roots in the Great Depression and through the 1940s, the goal of dairy price support policy, and most agricultural policy, was simply and unabashedly to raise farm incomes. The importance and general acceptance of this goal was evident well into the 1960s when serious concern about the disparity of average disposable incomes between the agricultural and nonagricultural sectors was still common. The relevance of income enhancement as a policy goal began to wane seriously in the 1970s and is now espoused only as one of several goals, if at all.

The dairy price support program, like most other economic programs from the New Deal era, is in a transition phase, but it is not clear to what the transition is leading. Programs ranging from Social Security to agricultutal price supports are fighting for short-term survival, but their longer term prospects and desirability are being questioned and many programs are being modified to reflect new priorities. For the price support program, as well as many others, the key words have become stability and security. Most people approve of programs that promote stable markets and insure against drastic price changes. The dairy price support program can be defended if it provides a reasonable price floor for producers, a so-called safety net, and if it results in predictable and moderate changes in supply and demand. While such statements are easily made and generally agreed upon in principle, in practice they become much harder to implement. Everyone likes a safety net, but there is considerable disagreement as to how close to put the net under the high wire. Everyone approves of stability, but they cannot agree on how to measure it, how much of it they want, or how to get it. Economists should be able to say more about the desirability or implications of stabilizing dairy markets at alternate levels of intervention.

Evaluations of the price support program are made relative to a set of goals. When the goals are multiple and ambiguous, different analysts can reach different conclusions. When analysts or the participants in a debate do not state their objectives or incorrectly assume that others share their view of the program's goals and priorities, it is small wonder that they reach different and often divergent conclusions. The debate over dairy policy might not be solved, but it certainly could be improved if the various participants would begin to discuss their program goals and work to resolve their differences. Once the short-term brushfire is extinguished or under control, policymakers will have to think about the longer run role or goals of dairy price supports. This will be better done if they can first agree on what the program is supposed to accomplish. Agricultural economists cannot define program goals, but we can demonstarate the importance of being clear about them and the implications of alternate goals. At a minimum, our own research should clearly reflect our assumptions regarding policy goals.

Politics versus Economics

Another message that comes through very clearly in this record of events is that economic policy is shaped at least as much by political considerations as it is by economic results. This probably does not sound very profound to even the casual observer of the policy process, but it is a factor that economists often ignore.

The influence of political factors is not easy to generalize, but the dairy record suggests a few things. First, political responses to policy seem to be reactive rather than active. They are based on past events more so than future needs. They are backward rather than forward looking. Second, there generally is a considerable lag, perhaps one or more years, between the time econmic impacts are registered and policy changes are implemented. The combination of these two factors help explain the events of the mid-1970s and early 1980s. One could argue that dairy policy has been changed several times since 1980, but the actual result has been a freeze in the support price for almost three years. This is a political stalemate, not a policy change.

Perhaps a third observation is that political factors are most persuasive in the short run, say perhaps a year or slightly more, but beyond that length of time economic factors become more important. This can lead to rational, albeit tardy, policy if economic conditions are on a trend or in a steady state condition. If economic conditions are cycling, this along with the lag in policy responses mentioned above can result in policy decisions that are not well synchronized with economic needs.

This type of cycling condition probably existed in the 1970's dairy economy, but whether it will describe the 1980s remains to be seen. There has been some concern that just about the time the Administration wins a cut in the support price, a lower price would no longer be appropriate. Given the predictions for a stronger economy, rising real incomes, and higher feed prices, this scenario does not seem terribly far-fetched.

Others look to the tremendous, although largely untapped, potential for increases in milk production per cow and foresee an even lower long-run equilibrium price. Economic analysis, no matter how good, cannot displace short-run political necessities or expediencies, but it can improve political decisions. The record suggests some ways in which our input could be improved.

The Role of Economic Research and Extension

The research and extension contributions to the resolution of the policy-related problems of the dairy industry have not been terribly impressive. The land-grant system seems to have a difficult time generating and delivering timely, relevant, usable policy research results. In many cases, we communicate the wrong way and to the wrong people. Perhaps the greater problem is in delivery, but the quality of our research also warrants review.

Research must be relevant to be usable in the policy process. Although not sufficient, a necessary condition for relevance of research is that the researcher or members of a research team be well informed or knowledgeable about the industry being analyzed and the policy issues being discussed. This requires historical perspective and a familiarity with more than USDA statistical publications. It has become somewhat passe in our profession to specialize in anything so mundane as a commodity. There are pitfalls to specialization, but the consequences of "generalization" are reflected in both the quantity and quality of research that is relevant and useful in the policy process and in other applied settings.

This is not to say that nothing good has been done in dairy marketing lately. Unfortunately, much of the good work that is done is depreciated by poor delivery and dissemination. Many academic researchers, particularly those who work in an environment that does not encourage extension, are poor at communicating with those who are in a position to effect changes.

The extension record on the production side or at the firm level is good, although we probably should consider changes in our methods there also. The record at the policy level is definitely weaker. It is not uncommon to hear agricultural economists chided for failing to sound the alarms about the misdirection of price support policy at an earlier date and for perhaps contributing to that misdirection. Although it may be true that some economists do fall in the latter group, it is also true that others saw the early signs and did bell the cat. Apparently the bells were too small or were sounded in the wrong place, because not only were the early warnings not heard by policymakers, they were generally not heard by agricultural economists in general. The problem is deeper or more complex than the oft-cited fact that we publish in journals and politicians or their staffs don't read our journals. If we are to influence policy, policymakers must be contacted directly or through high-level staff, and spoken contact with a very short amount of documentation is far more effective than our more typical written contact.

Even if done well, this type of contact can be frustrating and should be accompanied by a long range, continuous educational program. This brings us back to the topic of extension, particularly in its more traditional form. Marketing and policy extension seems to follow the model used by production economists. Farmers and agribusinessmen are viewed as the principal clients, and short newsletters or papers and small meetings are the typical delivery mechanisms. This approach has clearly been successful for farm management in the past, but it may not be a good or complete model for situations where policy decisions are made far from the farm yard.

If specialization and development of expertise in dairy policy and dairy markets can improve research they can also improve extension. In either case, it raises the question of whether each land grant university can afford to have specialists in all of the various commodity and other applied areas. Agricultural economics departments have been answering that question for years by moving to more and more generalization of responsibilities. While it may be great fun to be a generalist, we may be kidding ourselves if we think we can be very productive in that mode of operation. It runs counter to the economic principles we preach. If staff are limited and combining job responsibilities in fewer faculty members subtracts from our productivity, then we should consider alternative strategies. Perhaps we need to promote more limited and specialized research and extension roles for individuals and their departments and, concurrently, more regional or national cooperation among departments. Many departments, particularly in states having a small agricultural base, have been forced to cut staff and/or program areas. Even the largest departments cannot have viable and strong programs in every area.

The step toward inter-university cooperation seems particularly hard to make. Although opportunities for regional cooperation in research and extension exist, our efforts to date are hardly models of high productivity and generally miss the theme of specialization. Regional committees typically bring together professionals of like interest and responsibility, they do not necessarily promote or foster centralization and specialization.

In envisioning this kind of inter-university structure, fears may be kindled that big departments will dominate and attract resources away from smaller departments and that small departments will not be viable as their academic base is narrowed and eroded. Strong undergraduate and graduate teaching programs require a broad base of support in theory and methods, but they do not require research and extension expertise in a multitude of applied or industry areas. Conversely, specialization in a topical or commodity area need not imply a narrowing of the theoretical or methodological tools brought to bear on applied problems. Neither small nor large departments should worry that some specialization in research or extension will necessarily limit academic quality.

How would one go about designing a more cooperative and productive inter-university

structure for research and extension? On the research side it may require little more than assigning research funds and support at each institution in a fashion compatible with the regional goals. The extension system may require more effort, although not necessarily more structure. In either case, the impetus must come from the ground up, from a collection of professionals, not from administrators.

An important key for extension is communications systems. Traveling around one state, much less around a broader region, is demanding for many of us, but we probably rely on personal contact too much in the first place. Within the Northeast, which after all is no bigger than one or two western states, it is not hard to imagine an extension system in which an extension agent felt just as comfortable soliciting information from faculty at Rutgers as from New Hampshire. Rapidly evolving electronic communications technology now makes it just as easy to deliver information out-of-state as in-state.

In extension, whether the audience is farmers in the local county or policymakers in Washington, we also need to reevaluate what we are trying to communicate. In the dairy area, extension for some has come to mean little more than a news bulletin on the latest policy development or a rehashing of a USDA statistical bulletin. Some of that is inevitable and perhaps useful, but it is a rather modest goal for which to strive. Like research programs, extension programs in a particular area should be continuous, focus on the long run, and strive to educate and improve the analytical abilities of its recipients. Some research and extension activities related to short-term exigencies are necessary and useful, but university research and extension should reflect a longer range outlook. It is in this area that academe's comparative advantage lies.

In the latest round of policy negotiations, the initiative was taken by Congress rather than dairy industry representatives, because industry resisted efforts to compromise. The academic community has been on the fringe of policy development for years because academic contributions have been only marginally helpful. The record of events and policy responses in the dairy industry suggest some of the problems (and it is doubtful that the dairy policy record is unique). We should either make the changes necessary to enhance and improve our role or decide to move on to other areas. Choosing the latter course would do a major disservice to our professional heritage, and the current course of action runs counter to our economic principles. If we are willing to face this problem and try some innovative approaches, we can surely add considerably to the development of national policy.

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