Occasionally someone lifts up the line out of Alice in Wonderland that—-if you don't know where you're going any road will get you there. I sometimes think that that observation describes future directions in dairy policy.

We clearly have two schools of thought out here in the milk industry.

One is the market oriented-safety net school. It believes that milk prices should be made in the marketplace most of the time. There should be a price support program, but it should only become visible for short periods of time when some abnormal situation is placing sharp downward pressures on the level of milk prices. A couple of years ago I participated in one of those safety net projects where we defined the milk price safety net as—"a long run price which over the course of 10 years or more should average below the long run market clearing price by 5-10 percent."

Yes—a support price should be there.

No—the support should not determine or influence the M-W except in short run situations.

The dairy title of the 1985 Farm Bill was a definite turn in the direction of the market oriented-safety net school. In fact, if you believe that the future is the next four years, AND if you believe that no new dairy legislation is going to emerge prior to late 1990, then you already know what the future

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1 Robert E. Jacobson, Professor, Agricultural Economics, The Ohio State University, for presentation at Cornell Conference on Dairy Supply Management, Syracuse, New York, November 13, 1986.
direction of dairy policy is. Most of us are familiar with the downward spiral intended for support prices.

<table>
<thead>
<tr>
<th>Year</th>
<th>Support Price (3.67% BF)</th>
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<tbody>
<tr>
<td>1986</td>
<td>$11.60 per cwt.</td>
</tr>
<tr>
<td>1987 (January-September)</td>
<td>11.35</td>
</tr>
<tr>
<td>1987 (October-December)</td>
<td>11.10</td>
</tr>
<tr>
<td>1988</td>
<td>10.60*</td>
</tr>
<tr>
<td>1989</td>
<td>10.10*</td>
</tr>
<tr>
<td>1990</td>
<td>$ 9.60*</td>
</tr>
</tbody>
</table>

*Assumes over 5 billion pounds m.e. CCC purchases for each calendar year 1988, 1989, and 1990. Support prices could be increased 50 cents in 1988, 1989, and 1990 if projected CCC purchases each January are less than 2.5 billion pounds m.e.

The $9.60 support price is $3.50 below (minus 27 percent) the $13.10 support price that prevailed in the 1981-1983 period. A dairy policy of market orientation for the next four years is clear on two scores: (1) the systematic descent in support prices, and (2) the supply-demand adjuster hooked on to the price support decisions for 1988-1990. Add to that the authority for a second dairy reduction program that may be established in 1988, 1989, and/or 1990, and it becomes clear that (1) prevention of surplus milk is fundamental, and (2) price is the flagship for achieving supply-demand balance. That is today's policy.

The market oriented school is in a bit of euphoria at the moment because the October M-W was announced at $11.69, 38 cents above the support price. The Chicago butter price is running 14 cents a pound over the CCC purchase price, and 40 pound blocks of cheddar cheese are trading at 5 1/2 cents a pound over the CCC purchase price of $1.25. In the autumn of 1986, the market is working—with a big boost from the whole herd buyout program. The market oriented school, for the most part, does not believe that producer milk prices will
follow the downturn in support prices, but instead will reach equilibrium levels well above the support price.

The second school is the supply management school. Just because you're participating in this conference today doesn't mean you're a student of the supply management school.

Supply management has various gradations, from voluntary approaches with incentives through mandatory approaches with penalties. Even today, the National Milk Producers Federation is discussing at least four different versions of supply-management. We have proved as an industry and as a matter of public policy that some forms of voluntary supply management are acceptable implementations of dairy policy. The 50 cent rebate program in late 1983, the diversion program in 1984-85, and the whole herd buyout program in 1986-87 are manifestations of the fact that voluntary supply management programs implemented as short term bandaids may be useful. More importantly, these fairly modest supply management actions have been breakthroughs in the historic "don't tread on me" attitude of the milk industry toward production controls.

In a sense, the diversion program and the whole herd buyout program have only whetted the appetite of the supply management school. In the fall of 1984, the M-W jumped by 60 cents per cwt. because 39,000 milk producers had contracted to cut production. This fall, the M-W has already jumped 70 cents because 14,000 milk producers contracted to quit production.

Milk production dropped 3 percent in 1984 because there was supply management. Milk production jumped 7 percent in 1985 because there was no supply management.

Even today, many of us are looking for a rapid build-up in milk production in the second half of 1987 and in 1988 as the Dairy Termination Program fades
behind us. Why shouldn't we think that way—look what happened after the
diversion program. History has some lessons.

Regardless of the school you're in, all of us are agreed that dairy price
policy is going to have to do a better job of achieving supply-demand balance
than has been the case in recent years. The 16.8 billion pound milk equivalent
surplus in 1983 was a disaster, and we've seen too many surpluses in the 10, 12,
and 14 billion pound range in the 1980's. At current support levels, one
billion pounds m.e. of CCC purchases costs the government about $150 million.
The 5 billion pound maximum surplus implied in the present dairy program
suggests that the government is willing to spend up to $750 million a year for
dairy products. That may not sound like supply-demand balance, but it's a lot
closer to it than anything we've seen in recent years.

The supply management school argues that price will not achieve supply-
demand balance in the next four or five years, or even ten years. These
disciples are convinced that the technology of milk production is coming on so
strong that we will continue to see more milk at lower costs, almost
irregardless of price level. Milk production per cow in the U.S. was at a
record 13,031 pounds in 1985, an increase of 525 pounds per cow over 1984. It
will be up almost another 400 pounds in 1986. We all hear constantly about the
isoacids, the bovine growth hormone, the embryo transplants, further genetic
engineering, computerized feeding, three times a day milking, and what DHIA is
going to mean in the future.

The recent analyses conducted by the Office of Technology Assessment give
the supply management school a huge supply of fuel. Listen to their words—"The
most dramatic impacts [of emerging technologies] will be felt first in the dairy
industry.... New technologies adopted by the dairy industry will increase milk
production (per cow) far beyond the 2.6 percent annual growth rate of the past 20 years. Under OTA's most likely conditions, milk production per cow is expected to increase from current levels to at least 24,000 pounds by the year 2000, an annual growth rate of 3.9 percent.2

While I personally am very skeptical about the OTA projections, the point is that in the case of dairy, it is the fear of a yet to be implemented technology that is the banner in front of the supply management school. This is different from the feed grains, for example, where the stress of currently low prices is the rallying point for changes in the farm program.

Let me do a little more stage-setting for the supply management school. In the latest issue of Choices, John Schnitker, former Deputy Secretary of Agriculture, had these things to say about dairy:3

- Dairy excess capacity is in the neighborhood of 8-10 percent of milk production. Worst of all, it seems likely to increase over time because of declining feed costs and rising productivity.

With that premise, Schnitther gets political and makes the following points--

"The most compelling political scenario for revision of the farm support system in 1987 would develop--

- if Democrats gain four seats in the U.S. Senate.
- if grain stocks are forecast to increase in 1987 and again in 1988....
- if the whole herd heard dairy buyout reduces milk production temporarily but only by 3-5 percent after 8.5 percent of milk production was bought out

- if realistic expectations are for a new surge of dairy surpluses in 1988
- AND, if the cost of [all] price support programs is around $25 billion, instead of the officially endorsed $17-18 billion

"In that climate, the constant urge to re-write the farm bill would become even stronger."

Somehow, it seems to me that almost all of these conditions are in the process of being met. We all saw the election results nine days ago.

At the present time, it requires a net reduction of 107,000 milk cows in the United States to offset every 1 percent increase in production per cow as we determine total output. A reduction of 107,000 milk cows, assuming an average dairy herd of 63 cows in the U.S. at present, means the required exit of 1,700 dairy farms. When OTA talks about a 3.9 percent increase each year in production per cow, one can see how quickly the pressure on survival of the family dairy farm multiplies.

Of course, the question for future dairy policy is whether society will accept the re-structuring of the dairy industry and the losses of the family dairy farm that new technology in conjunction with a market oriented dairy policy are likely to bring about.

At the present time, the dairy sector comes closer to reflecting a family farm structure than any other agricultural enterprise. In the Federal milk order program nationally (approximately 70 percent of all milk, 80 percent of Grade A milk, and 115,000 dairy farms), the average herd size is 63 milk cows. Approximately three-fourths of the dairy farms shipping to Federal order markets have herds that average smaller than 63 cows.

In the studies that the Office of Technology Assessment have reported, the conclusions point to the fact that price support policies that reflect the
schedule of the 1985 Farm Act would work against survival of the family dairy farm. Note the following points:

- A 52 cow dairy farm in Minnesota has only a 74 percent probability of survival through the 1983-1992 period with present policies.
- The average net worth of the Minnesota dairy farm would drop from $417,000 to $240,000 through that period.
- Cash income and net income would be negative figures (~$7,000 and ~$22,000).
- For large dairy farms (up to 1,436 cow herds in Florida and California), current policy would mean high probability of survival, increasing net worth, and positive income levels.
- With supply management (mandatory production controls), survival probability for the 52 cow dairy farms would increase from 74 percent to 92 percent. Net worth and income would still erode, but not by such large proportions.
- Large dairy farms would perform similarly on survival probability, net worth, and income under either present policies or supply management.

Since three-fourths of the dairy farms in the United States fit the 52 cow herd size model pretty well, it's not difficult to perceive the increasing attraction that supply management holds.

An implicit objective of supply management is to somehow hang on to the structure of dairy farming as we now know it. We know that supply management may not save the family dairy—Canada's version has hastened concentration. But base transfer rules can be made that will solidify current structure.

But that may not be what we want either. The point is this—what should be the OBJECTIVE of dairy price support policy in the future? You might ask, and
fairly so, what has been the objective of dairy policy in the past? We hear a lot of fat words on objectives. The 1949 Act states "adequate supply" as an objective, but trying to give that any definition has been useless, at least in the past ten years.

On the one side, we hear parity, or dairy parity, or cost of production, or family farm. On the other side, we hear market oriented or safety net or facilitate adjustment or encourage demand. One would think we would have to make a choice; historically we have chosen BOTH. That's partly why we are in the fix we have been in in the 1980's--surpluses even while producer milk prices run at 53 percent of parity.

Supply management, by definition, means we are choosing an objective of price enhancement--of establishing producer milk prices significantly higher than long run market clearing prices. If this were not the case, then we would not have to concern ourselves with production controls.

Are we ready to make that choice? I doubt it. Our objectives will continue to be, simultaneously, (1) help preserve the family dairy farm, and (2) permit market forces to establish price levels in the milk industry. These two objectives are in conflict, so we'll continue to stumble along, searching for various short run measures, such as a whole herd buyout program, that will get us past the current crisis.

Demand also has something to tell us about future dairy policy--but we can't be sure what it tells us. We've all become aware of the remarkable increases in aggregate commercial demand in the past 4 or 5 years.

<table>
<thead>
<tr>
<th>Year</th>
<th>Commercial Demand</th>
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<tr>
<td>1980</td>
<td>119.5 bil. lbs. m.e.</td>
</tr>
<tr>
<td>1981</td>
<td>121.0</td>
</tr>
<tr>
<td>1982</td>
<td>122.5</td>
</tr>
<tr>
<td>1983</td>
<td>122.5</td>
</tr>
<tr>
<td>1984</td>
<td>126.9</td>
</tr>
<tr>
<td>1985</td>
<td>131.1</td>
</tr>
<tr>
<td>1986</td>
<td>135.0</td>
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The rates of increase in the past couple of years have exceeded 3 percent. These increases cannot be explained conventionally. The National Dairy Promotion Board and the UDIA can take their bows. And we know that price has been a factor. Currently, on the Consumer Price Index (1967=100), the general price level is up 3.3 times, retail milk and dairy product prices are up only 2.6 times, and producer milk prices are up even less: 2.4 times. The market oriented school can say, "Look, we told you so--price is doing the job--we can achieve supply-demand balance at reasonable prices."

The supply management school can look at the same numbers and say, "These demand increases have been phenomenal but they absolutely cannot be maintained. If we hadn't had them, look what the surplus situation would have been. We had better get on top of supply control now, because the demand increases are not going to be here much longer."

I find myself more persuaded by the supply management school on the demand issue. We should expect to get about 1 percent annual increases in dairy demand over the long run--far short of projected increases in supply.

I wonder, if we had held this meeting back in 1950, and know what we know today, if we would have pursued dairy policies similar to what we have utilized. In 1950, there were 3,648,000 farms in the United States with milk cows; today there are 270,000 farms with milk cows. In 1950, there were 405,000 commercial dairy farms in this country; currently we estimate that number at 165,000. In 1950, per capita consumption on a milk equivalent basis was 740 pounds; currently we are at 550 pounds per capita consumption (commercial sources). In 1950, production per cow in the U.S. averaged 5,314 pounds; this year we will hit the 13,400 pound mark.
My point is that we have been through as much change in this past generation in the dairy sector as we are likely to see in this next generation. We have paid lip service to saving the family dairy farm, but they have disappeared by the hundreds of thousands. Market forces essentially have prevailed, and I doubt that we would find very many people that would have regrets about the policies we have used or the changes that have occurred.

Is 1986 any different from 1950? Is 1986 a year we would lock ourselves into? Possibly—mostly because of a concern with on-coming technology that bruises some of our traditional values. But is that concern big enough to push us into supply management?

I suspect that our future directions for dairy policy will be more of the same. That means establishing support prices at some level and then seeing how the market reacts to that price. If milk supplies are short, the support price will be hiked to catch the higher market price. If, as seems to be more likely, surplus milk will be facing us, the support price will be dropped modestly and we'll have another round of a 15 month or 18 month milk reduction program.

I don't know if that sounds like policy or not, but I do believe that it reflects what we're going to see in the dairy program in this next decade. Why not something stronger, i.e., mandatory supply management? Because the majority of milk producers in the United State are not ready to bite the bullet on that one yet.