Outlook and Inflation in the Dairy Industry

2022 Agricultural and Food Business Outlook Conference

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COVID has had huge impacts.

7 day average new cases
Factors impacting milk prices

- Domestic Demand
  - Where are we consuming dairy products—in-home vs out-of-home eating
- Domestic Supply
  - Too much milk—>Not enough milk—>Too much milk—>Not enough milk
- Export Demand
  - Activity on all products
- Export Competition
  - EU and NZ produce less milk
- Export Friction
  - Port congestion & strength of dollar
- Inflation
Domestic demand has been good.
Cheese took a breather during 2020

U.S. Per Capita Consumption

- American Cheese
- Other Cheese
- Yogurt
- Butter

Domestic Demand
Fluid sales had a little flourish

U.S. Fluid Milk Sales: Rolling Daily Average

Domestic Demand
Dairy cow numbers retreated

Milk Supply

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<th>Year</th>
<th>Jan</th>
<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
<th>May</th>
<th>Jun</th>
<th>Jul</th>
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<th>Oct</th>
<th>Nov</th>
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<td>9,300</td>
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<td>2019</td>
<td>9,350</td>
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<td>2020</td>
<td>9,400</td>
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<td>2021</td>
<td>9,450</td>
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1000s of Cows

2018  2019  2020  2021

Milk Supply
So did milk per cow
Milk production is below year earlier levels

Percent Change in Milk Production
Production declines in West increases in the UMW

Annual Change in Milk Production, 2020-2021
Export demand larger than ever

12 Month Rolling Average Trade as a Percent of Solids Produced

- Exports
- Imports
Increasing product exports across the board
Increases to several customers

All Exports by Volume by Market, YTD - October
Competition for exports

Percent Change in Milk Production from Year Earlier

- US
- Other Major Exporters
Shipping costs have gone from about $3,000 per container to $20,000. Somewhat better now—about $12,000.
Dollar value is gaining strength

Graph showing the Nominal Advanced Foreign Economies U.S. Dollar Index from January 2006 to July 2021.
U.S. powder prices are competitive

Skim Milk Powder Prices

EU SMP  Oceania SMP  US NFDM  S Am SMP
U.S. cheese prices are competitive
U.S. butter prices are competitive
Structural causes of inflation

• 40 years ago, inflation was a cost-push from energy
  • OPEC was formed to short oil supplies and increase prices
    • Govt mandate to make cars more efficient
    • Govt incentives to insulate homes
  • Energy is at the base of all things we build and do

• Today, cost-push is coming from labor shortage
  • Pandemic inspired job changes
  • Dual income houses making the calculation to keep one person home with the kids
  • Baby boomers making retirement decisions earlier than in the past
  • These would have all happened without the pandemic, but they’ve happened sooner and all at the same time.
  • Labor wages are at the base of all things we build and do
Evaluate capital investments carefully

- Forecast return on investment... not return on asset value

- Since labor shortage is real and probably long-lasting, consider investment in labor saving capital investments
  - Automated milking, feed pushing, etc.
  - Tractors and field equipment are rushing to automate
My forecast

Actual and Forecast Milk Prices

- Class III
- Class IV
- All Milk Price

Forecast Milk Prices
In summary...

- **Domestic Demand**: some product shifting, but demand has been good *(little softer now, about 80% of meals prepared at home)*
- **Domestic Supply**: things are a little tight now, particularly in the west where a lot of powder and butter are made
- **Export Demand**: has been very strong across all product categories
- **Export Competition**: less milk from EU and NZ
- **Export Friction**: some, but port congestion is getting better and product prices are competitive. We should pick up market share.
- **Inflation**: big unknown. We’d better keep our eyes on investments.
- **Milk Prices**: pretty good year, but continue to look at risk management options and control variable costs.