2020 in the Rearview Mirror…

What will 2021 Offer For Dairy Prices?

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Director of Dairy Policy Analysis

U.S. Daily Infections Over Time
Markets Have Done a Remarkable Job of Moving Milk To Meet Consumer Demand

Historically, about half of cheese is consumed in out-of-home eating

◘ The vast majority of American processed cheese is served through food service
◘ Majority of pizza sales are take out anyway and those sales have surged
◘ Farm to Family Foodbox has had a large impact

Total cheese consumption up at retail and down at food service and institutional establishments. Total commercial use down about 0.4% but was expected to be down by much more.

Commercial Disappearance of Cheese

Daily Average Total Cheese Disappearance

“Safer at Home”

Millions of Pounds

27.5

30.0

32.5

35.0

37.5

40.0

Jan 2012
Jul 2012
Jan 2013
Jul 2013
Jan 2014
Jul 2014
Jan 2015
Jul 2015
Jan 2016
Jul 2016
Jan 2017
Jul 2017
Jan 2018
Jul 2018
Jan 2019
Jul 2019
Jan 2020
Jul 2020
The Markets are Moving Milk To Meet Consumer Demand

About two thirds of fluid milk is consumed in the home
- Fluid sales are up, reversing a long-standing trend
- Reports of empty store shelves were short-lived

The Markets are Moving Milk To Meet Consumer Demand

- More than half of butter is used in out-of-home eating
  - Food service and institutional uses are substantial
- Butter sales have been way up at retail through July but have slowed a bit since then—pandemic cooking is a real thing.
- Total butter commercial disappearance of butter about down 0.2% for the year.
The Big Concerns

Base-excess reductions in April-May were significant but short-lived. We are officially back at large production increases.

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Big Concerns

- Pandemic prices have not been as bad as expected, but I’m not sure how much production we can handle.
- Powders are clearing the market, but butter stocks, although being drawn down, are growing.
- Food boxes have really caused tightness in cheddar cheese markets, but those markets have swept out fresh inventory.
- $1 a pound cheese prices in April caused a surge of export sales and $3 a pound squashed those sales 6 weeks later.
- Tailspin into worldwide recession because of virus induced supply chain disruptions (not just dairy).
The Economy Was Strong, But...

Unemployment Rate

This was our “Great Recession”

Some Segments Have Been Hard Hit

Restaurant Performance Index

This was our “Great Recession”
Consumer Confidence in the Economy

This was our “Great Recession” Consumer Confidence Index

This is a Different Recession

- 2008-09 was about decline in asset values
  - Had a greater impact on the wealthy

- Pandemic recession is about job loss
  - Has a greater impact on people in service sector

- This will have an impact on dairy demand going forward if people remain out of work and don’t have extra unemployment benefits
A Consumption-Based Economy

International Comparison of Consumption as a Percent of GDP

Source: World Bank (Selected Countries)

<table>
<thead>
<tr>
<th>Country</th>
<th>Consumption as % of GDP</th>
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</thead>
<tbody>
<tr>
<td>US</td>
<td>71%</td>
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<tr>
<td>UK</td>
<td>66%</td>
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<tr>
<td>Japan</td>
<td>61%</td>
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<td>France</td>
<td>58%</td>
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<td>China</td>
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The Importance of Dairy Trade

Exports vs. US All Milk Price

- Exports
- US All Milk Price

2000 to 2020
Concern

![Cheese Stocks Graph]

Global Cheddar Cheese Prices

![Global Cheddar Cheese Prices Graph]
Global Skim Milk Powder Prices

U.S. NFDM

Oceania SMP

EU SMP

S Am SMP

World Milk Production is Bouncing Back

U.S.

Major Exporters
Percent Change in U.S. Milk Production

U.S. Number of Dairy Cows
Milk per Cow per Day

Regional Changes in Milk Production
Percent Change in First Three Quarters — 2020 vs 2019
Optimism, or Pessimism?
February 2021 CME Contract Prices Over Time

Forecast Factors
- We have optimism about:
  - 5th Foodbox program
  - Grocery store sales and a return to home cooking
  - Restaurant and schools re-opening
  - Back to work and some version of “normal”
  - Export opportunities
  - Effective COVID-19 vaccine, better testing & contact tracing
- But, real concerns about a widely administered vaccine and U.S. / Worldwide recession
- New Class III capacity— Michigan, I-29 corridor & Wisconsin
  - Could imply Class III clearing markets at world prices
**Price Forecasts**

Actual and Forecast Milk Prices

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<th>Month</th>
<th>Class III</th>
<th>Class IV</th>
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<td>$22.53</td>
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<td>Apr 2020</td>
<td>$22.58</td>
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<td>Jul 2020</td>
<td>$23.58</td>
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<td>Oct 2020</td>
<td>$23.85</td>
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**2020 Was Better Than We Thought**

Net Milk Income

| Year     | Class III | U.S. All Milk Price | CFAP
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<td>2020</td>
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Wisconsin Farm Loss is Slowing

Wisconsin Dairy Farm Attrition Rate

Dairy Margin Coverage

Actual and Forecast Dairy Margin

Updated 1/12/21
Dairy Margin Coverage

Have You Managed Your Risk?

- DMC is a no-brainer — sign up for all the Tier 1 you can at $9.50
  - Farms will be able to increase historic production up to 5 million pounds

- Watch for opportunities in futures markets
  - Price opinions may move around quite a bit.
  - Look for price floor opportunities with Dairy Revenue Protection a quarter or more out.
  - Look for price floor opportunities with options in the near quarter. Not seeing much now, but maybe in the future.
## PPDs

### Upper Midwest Order 30

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<th>Class II</th>
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**With no Depooling**

**With complete depooling**

**Actual PPD**

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**What will 2021 Offer For Dairy Prices?**

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