

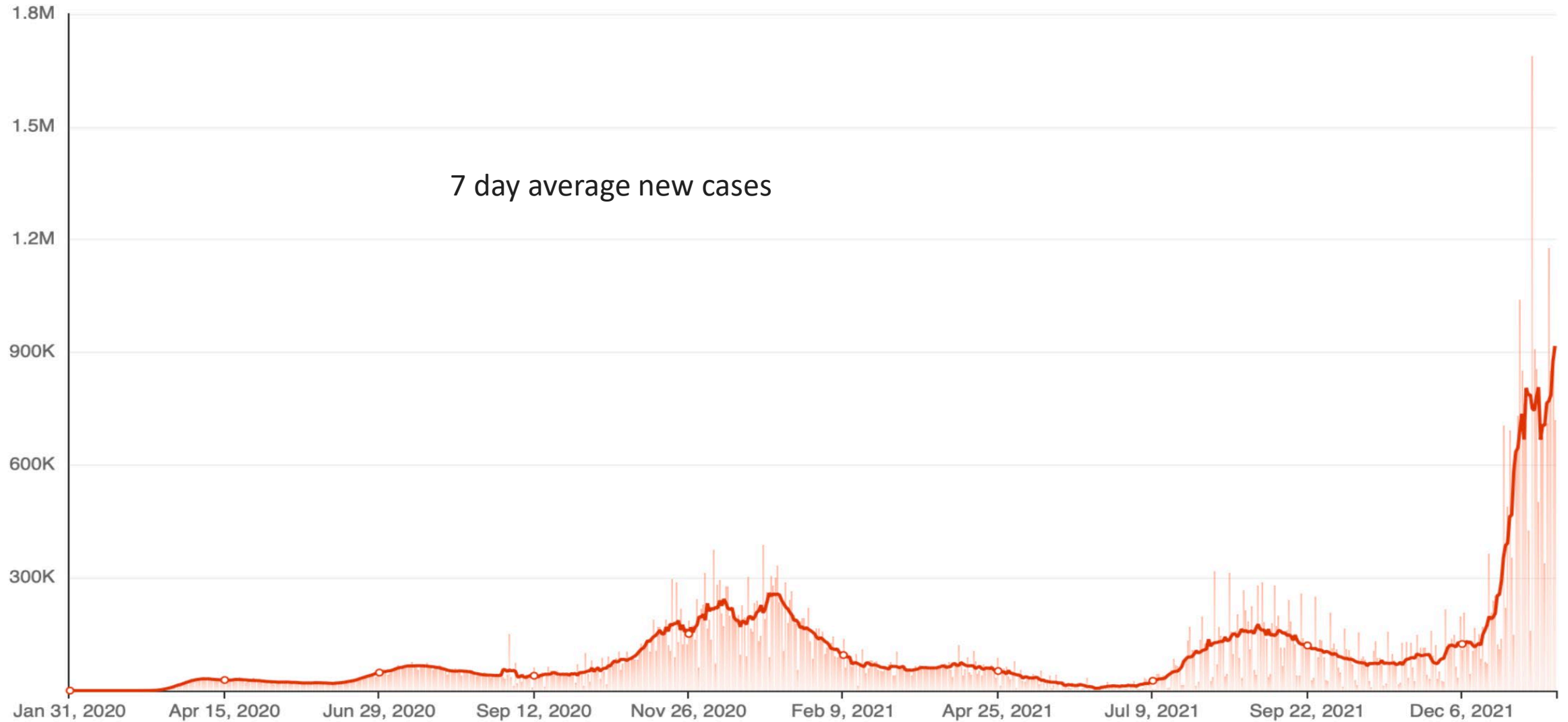
Outlook and Inflation in the Dairy Industry

2022 Agricultural and Food Business Outlook Conference

Mark Stephenson, Director of Dairy Policy Analysis, UW-Madison



COVID has had huge impacts.

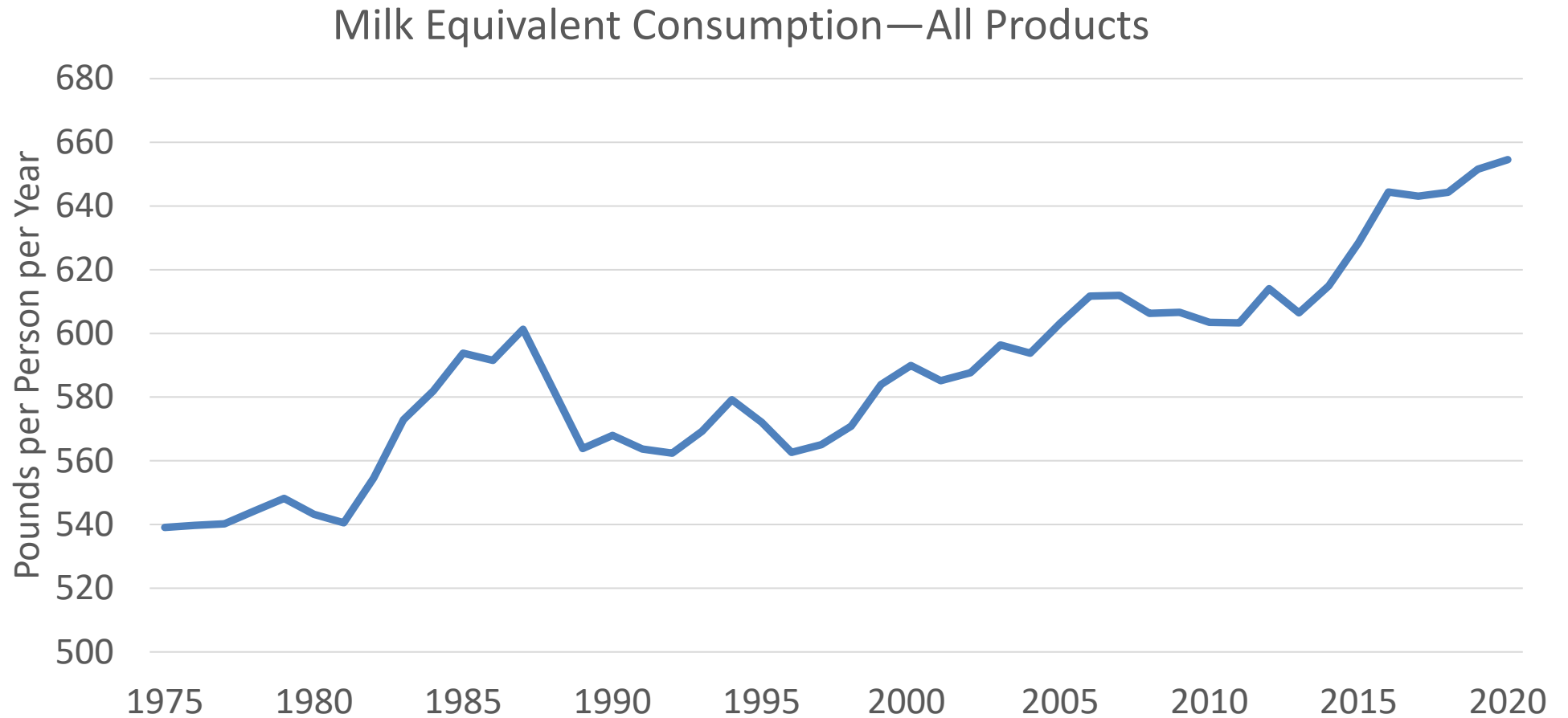


Factors impacting milk prices

- 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

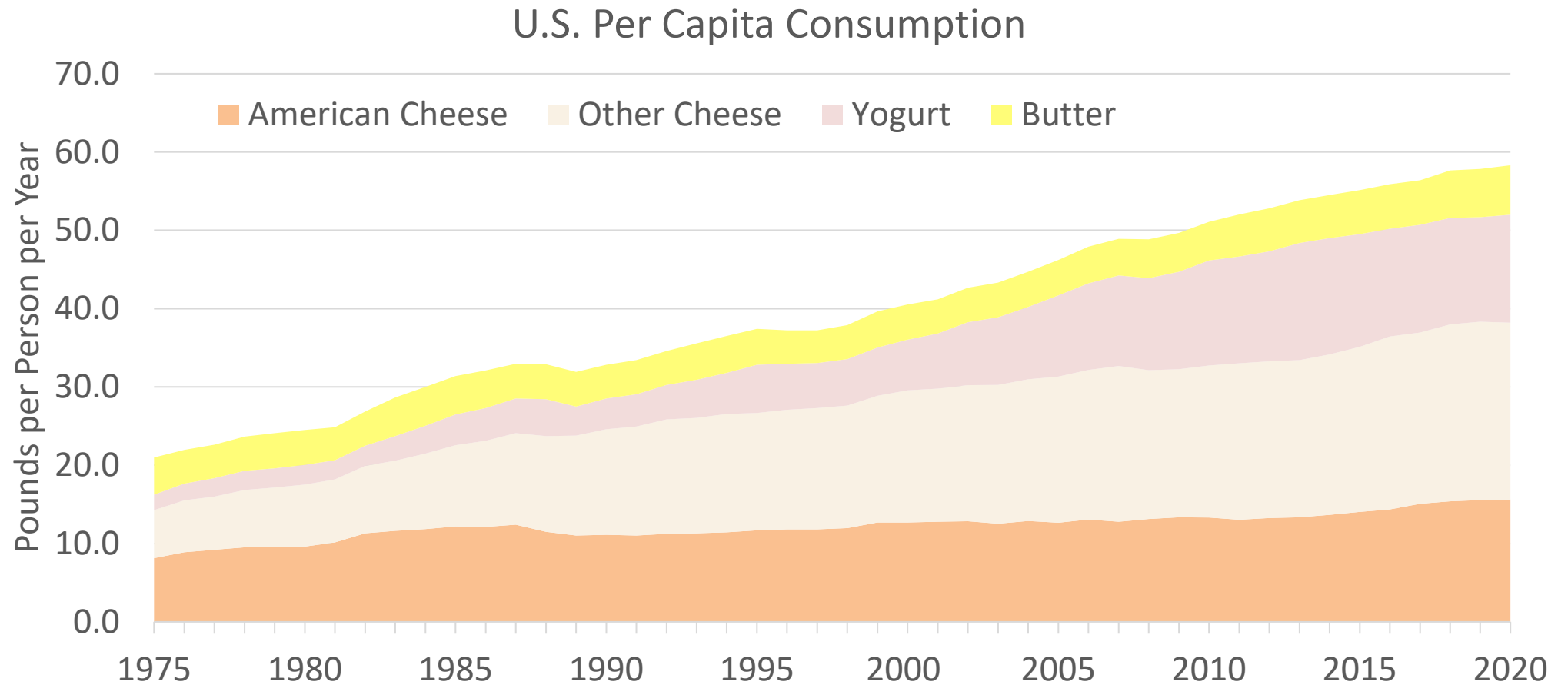


Domestic demand has been good.





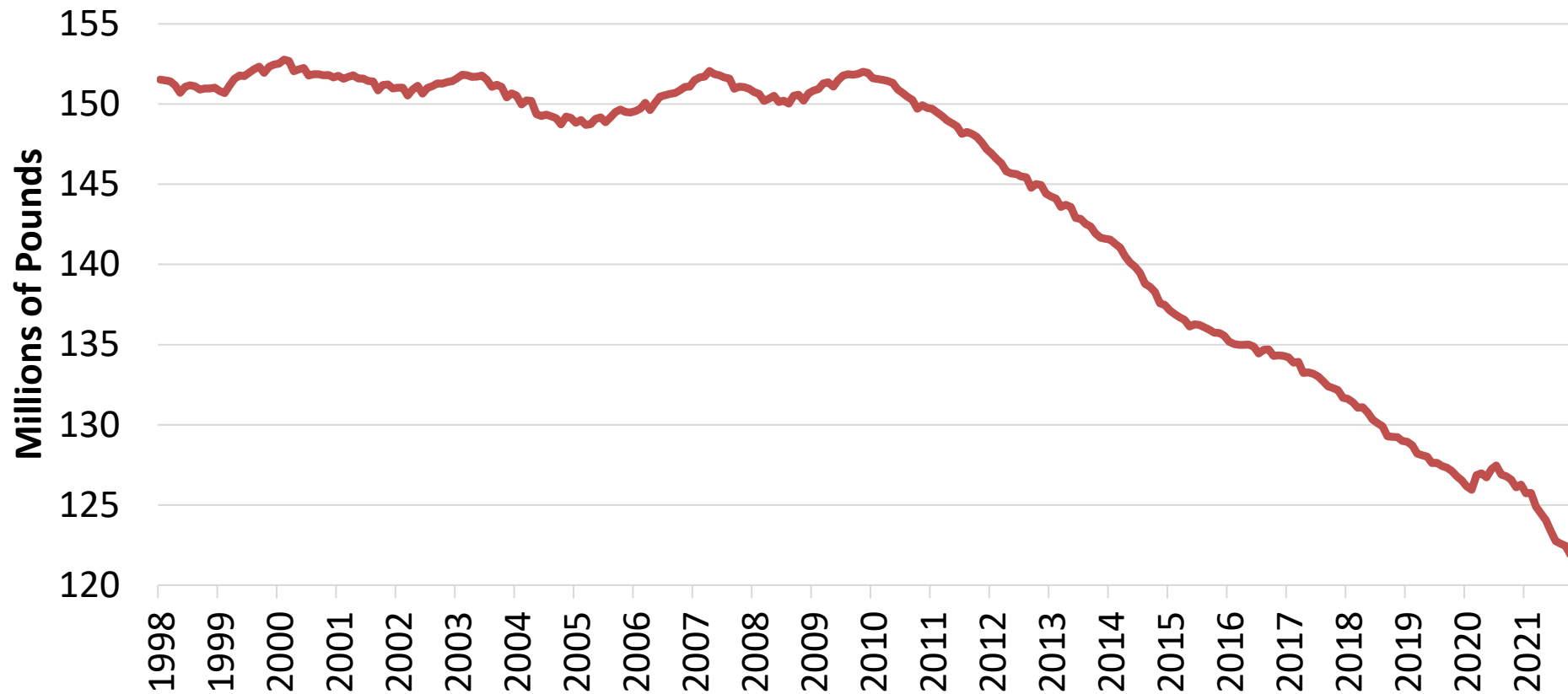
Cheese took a breather during 2020



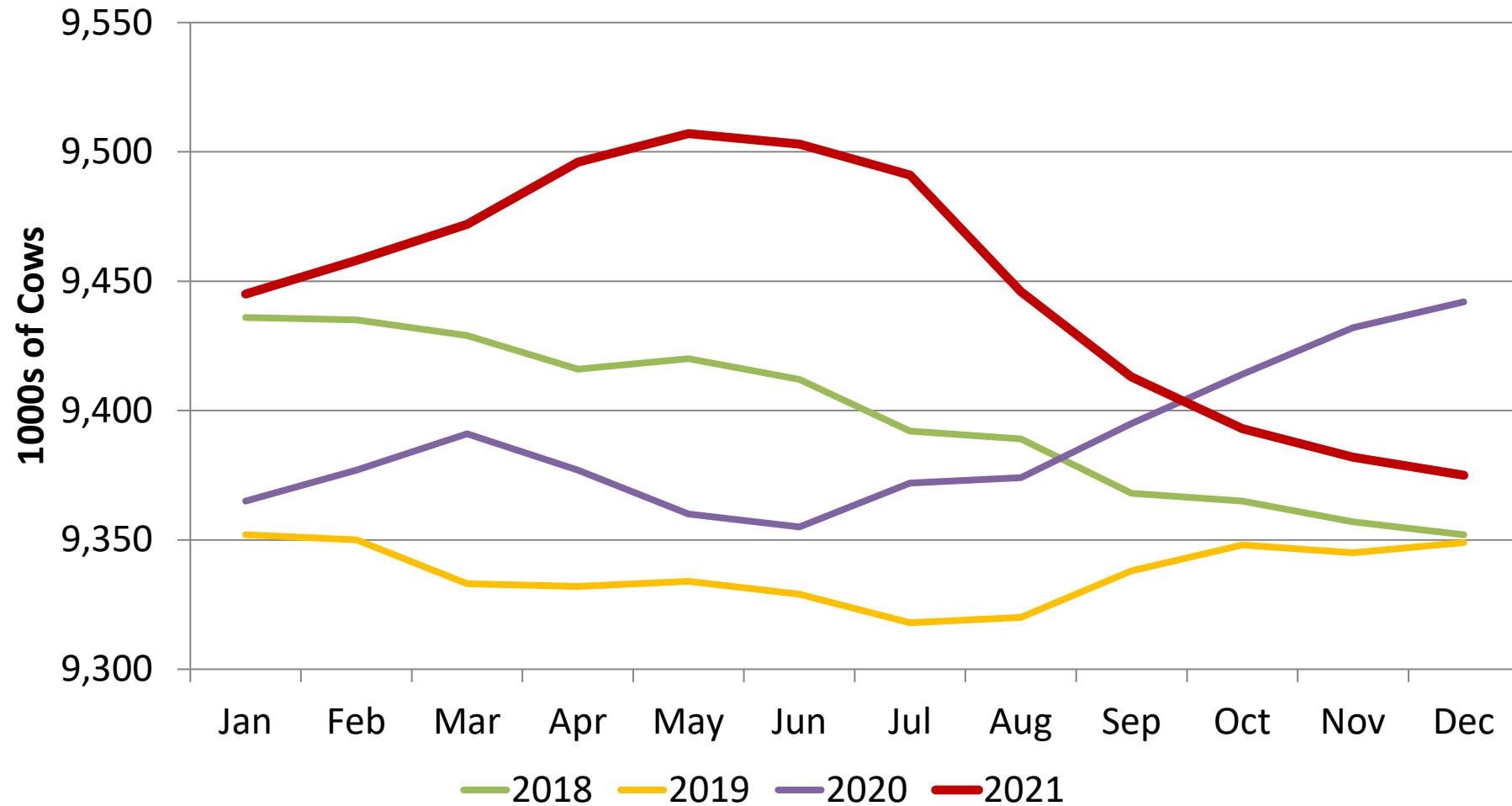


Fluid sales had a little flourish

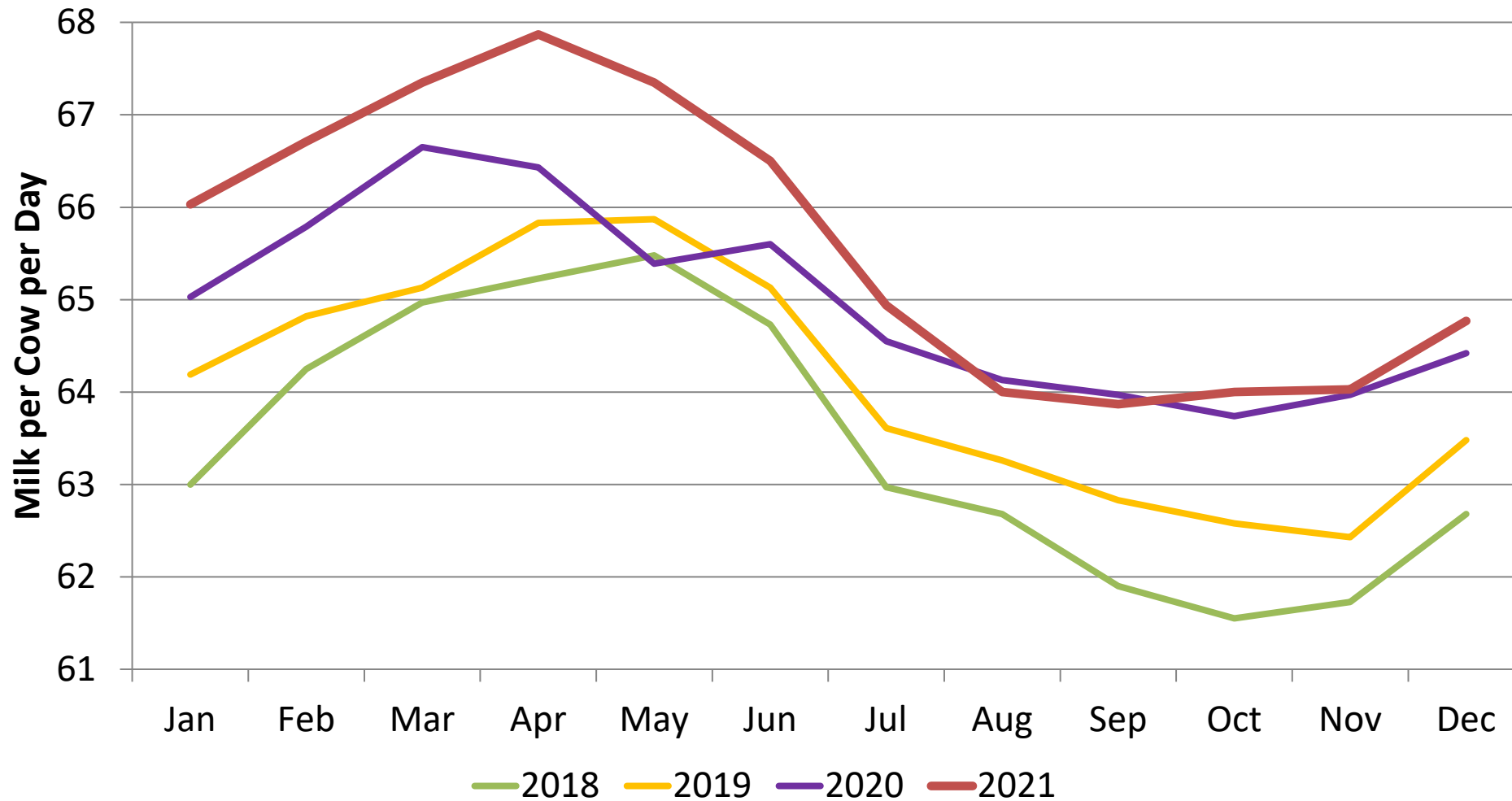
U.S. Fluid Milk Sales: Rolling Daily Average



Dairy cow numbers retreated



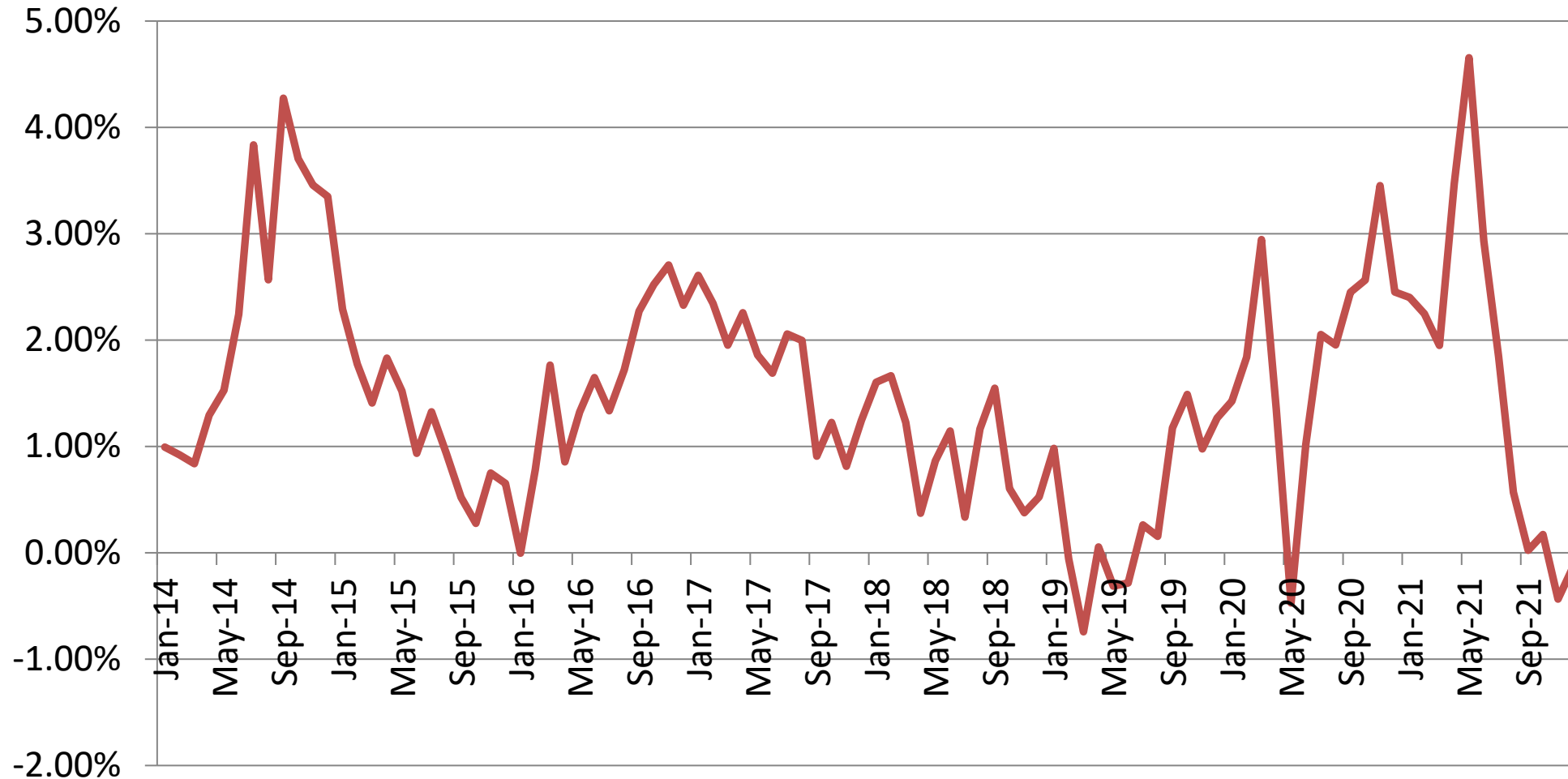
So did milk per cow





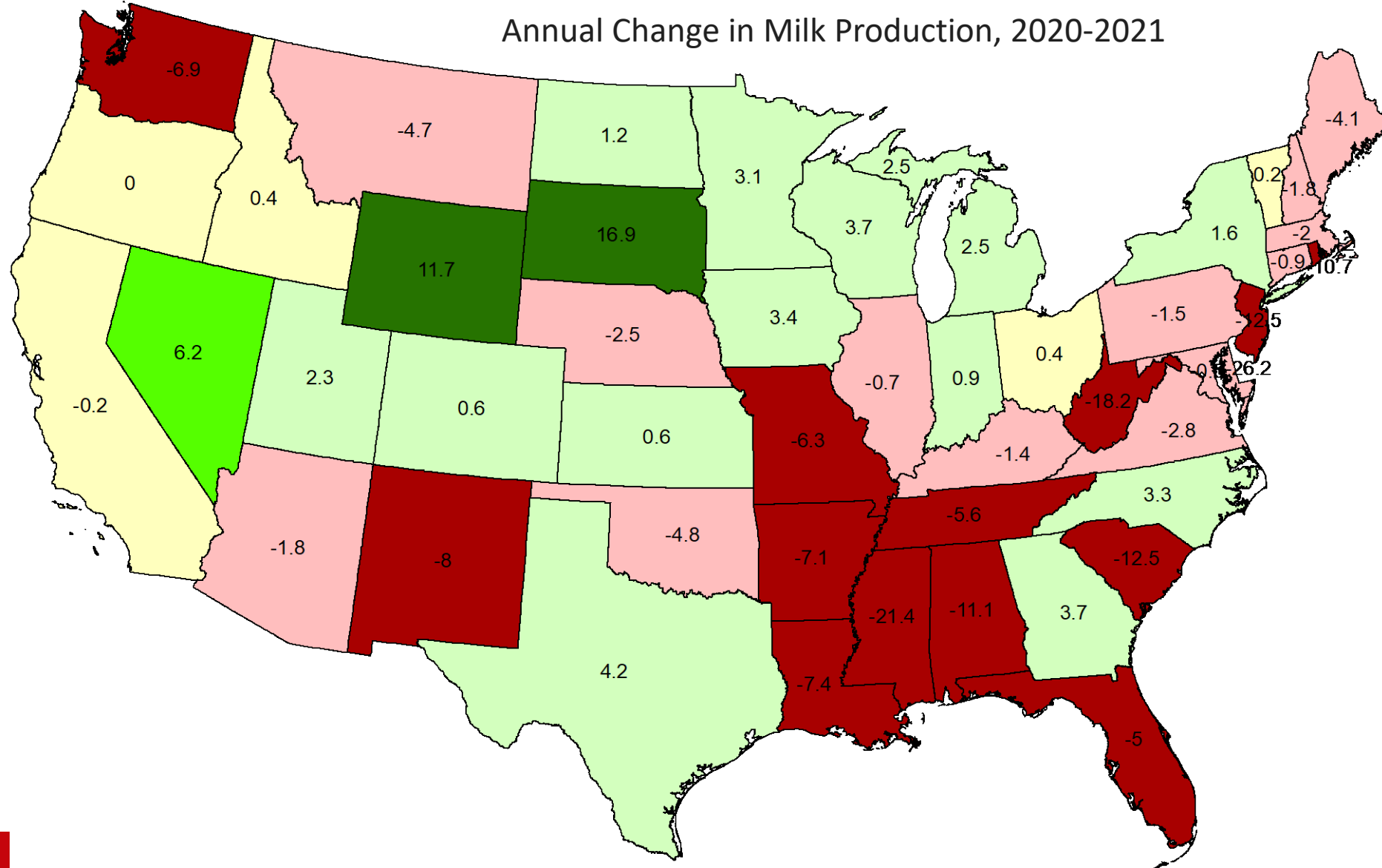
Milk production is below year earlier levels

Percent Change in Milk Production

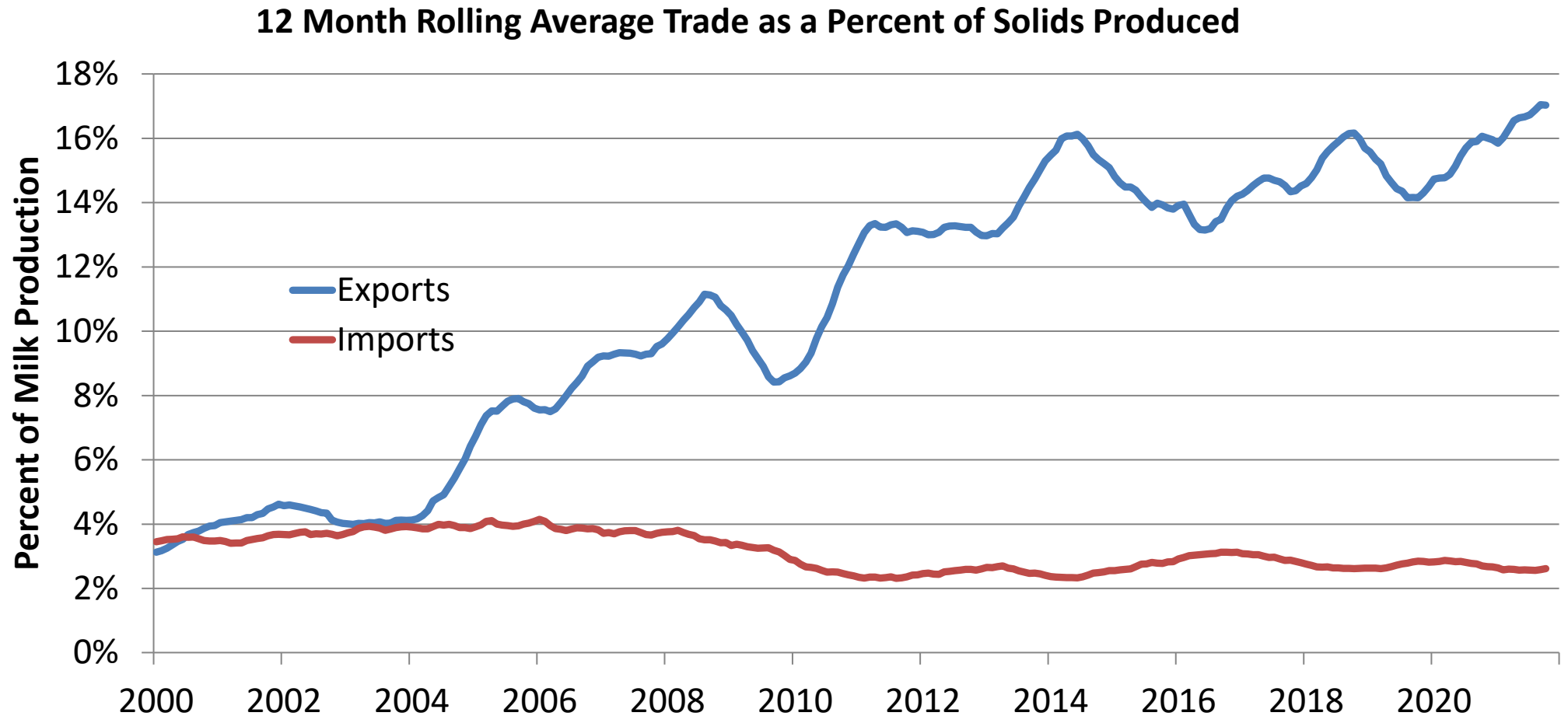


Production declines in West increases in the UMW

Annual Change in Milk Production, 2020-2021



Export demand larger than ever



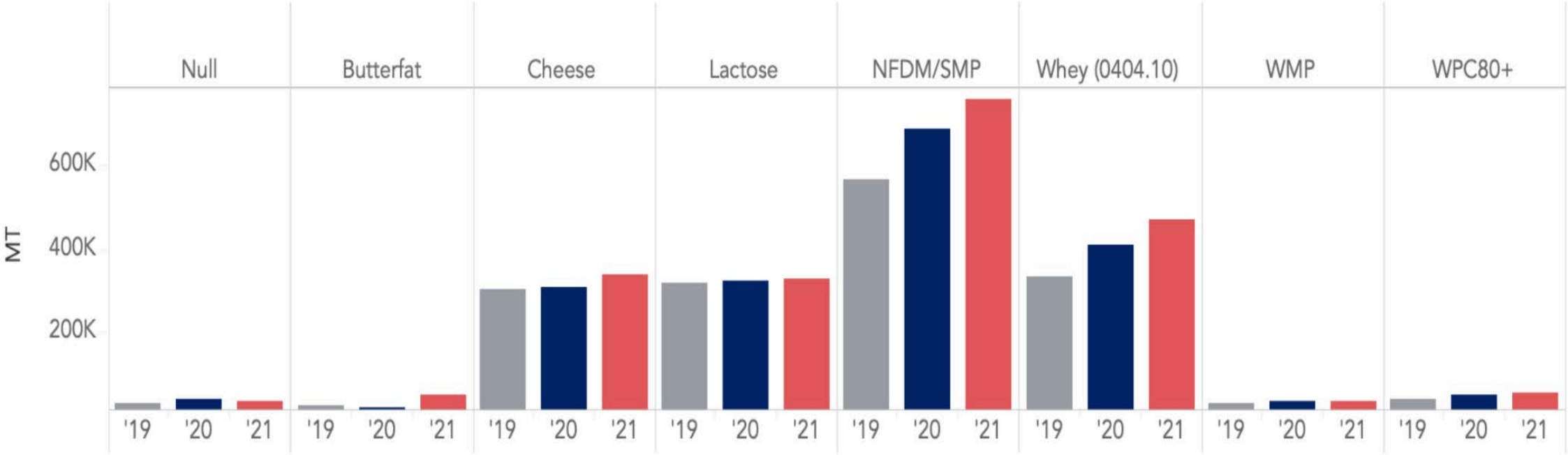


Increasing product exports across the board

US Exports

Show:

YTD

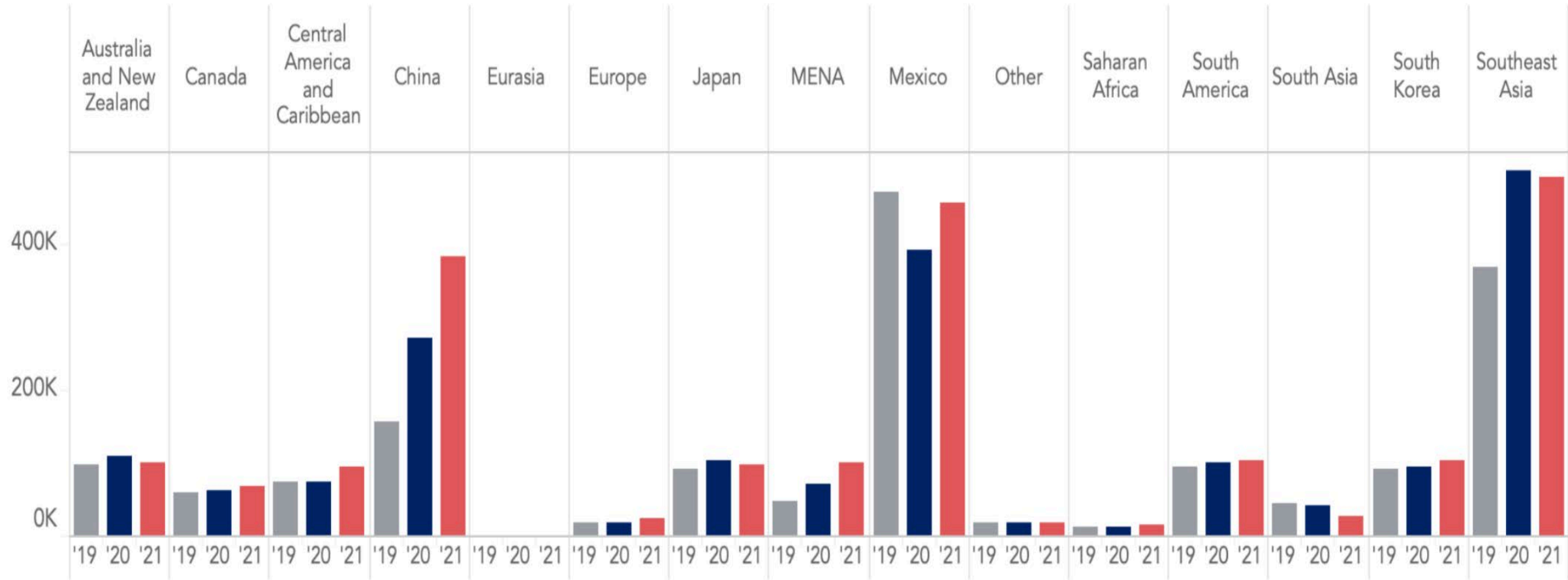




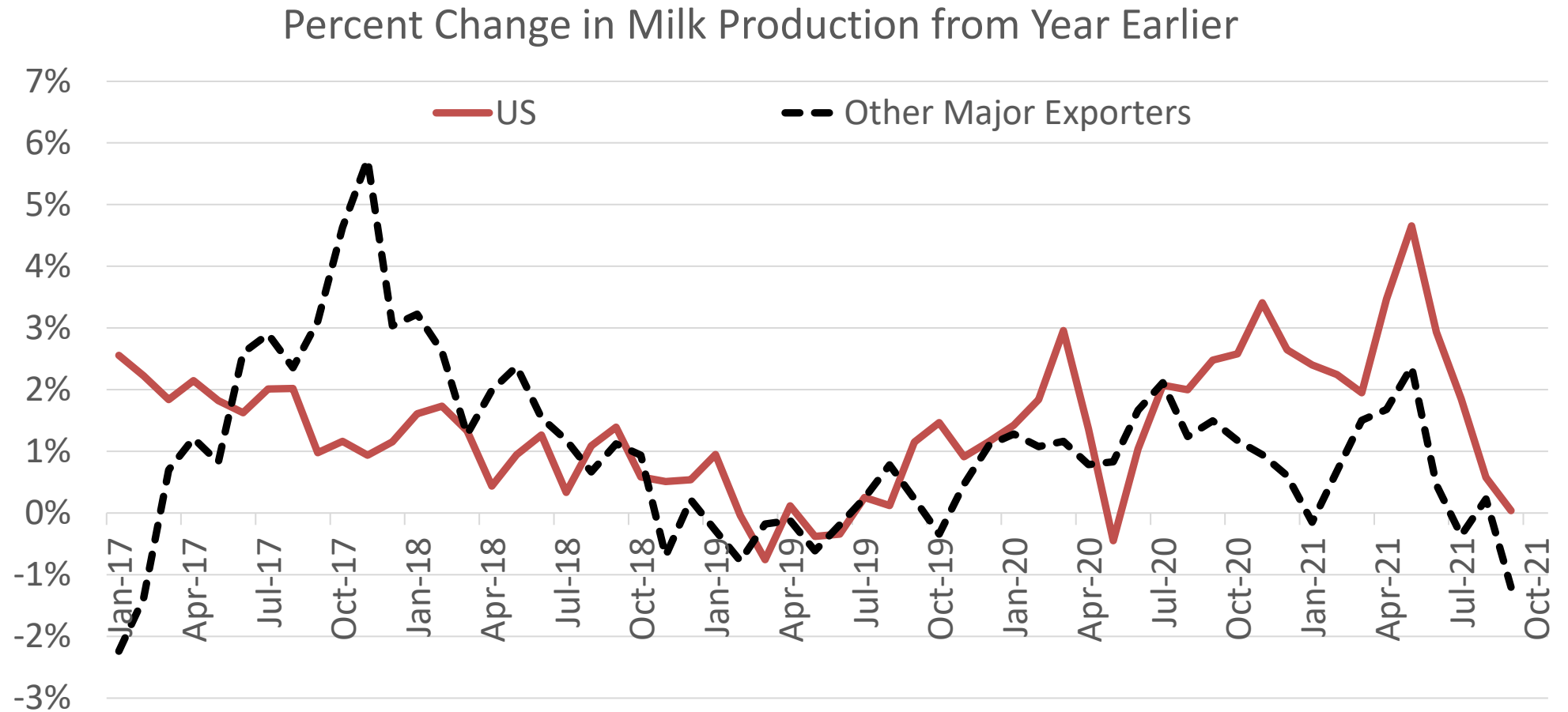
Increases to several customers



All Exports by Volume by Market, YTD - October



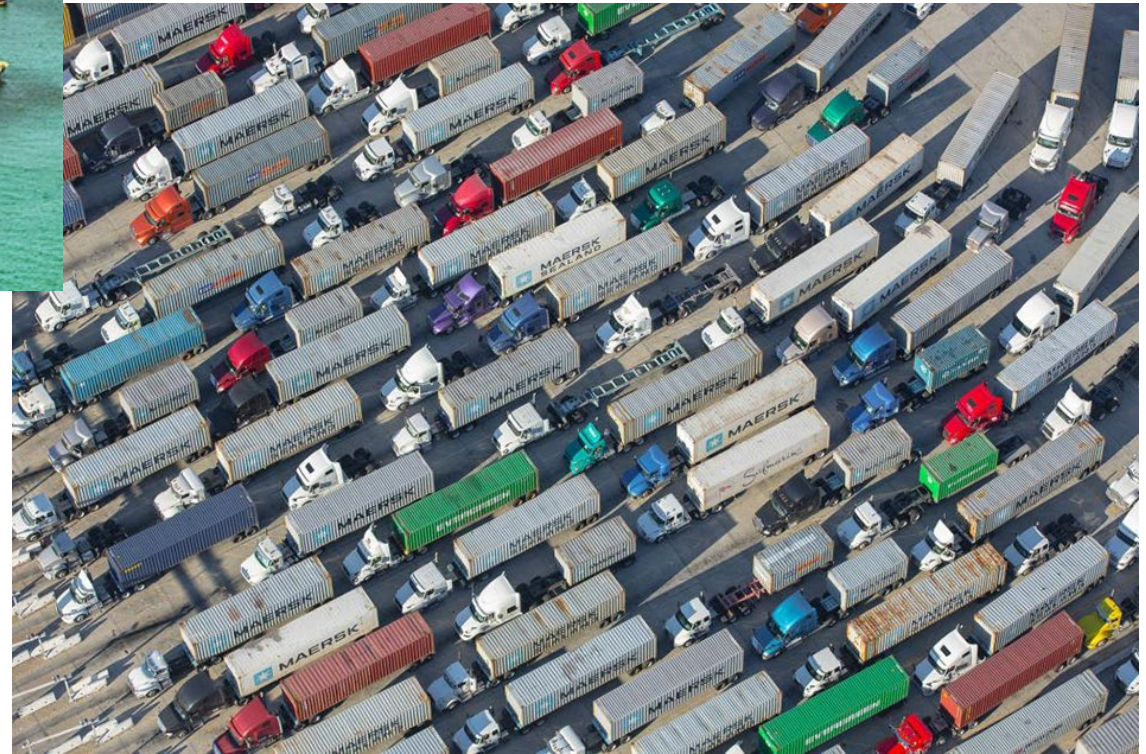
Competition for exports



Port congestion



Shipping costs have gone from about \$3,000 per container to \$20,000. Somewhat better now—about \$12,000.

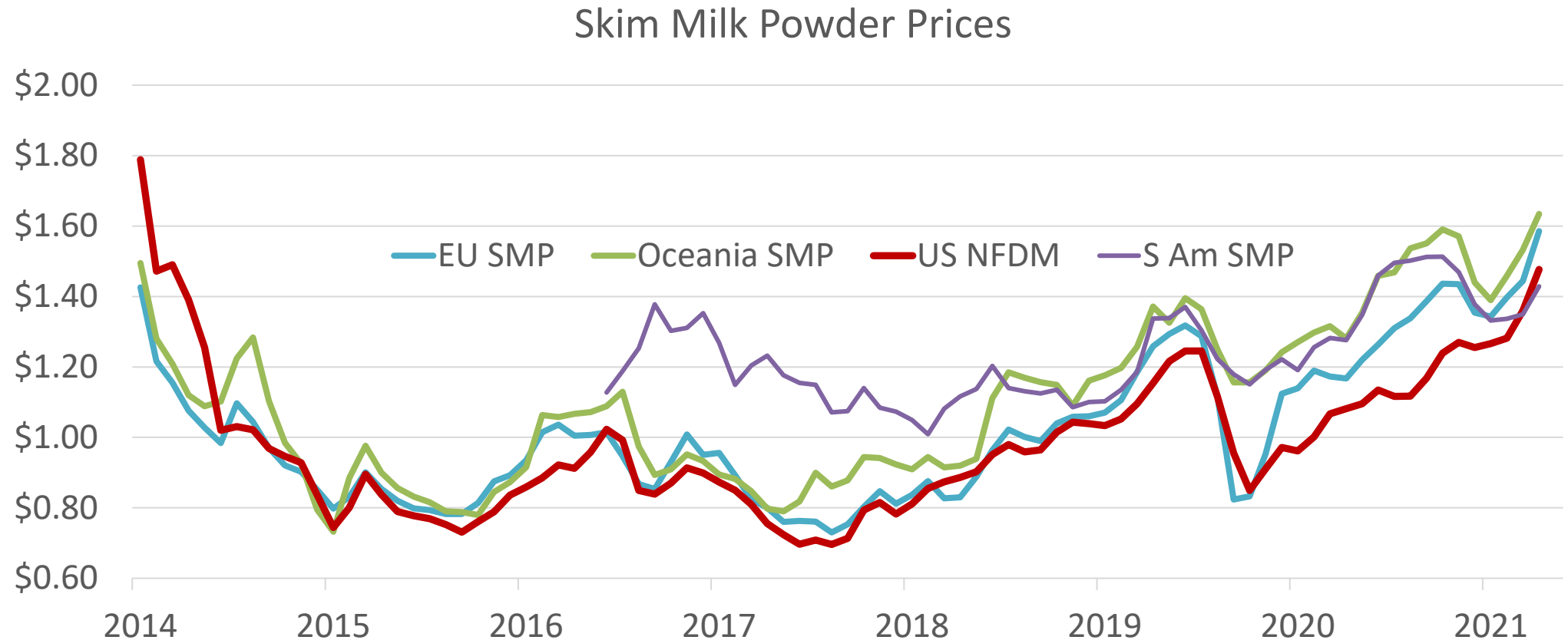


Dollar value is gaining strength

FRED  — Nominal Advanced Foreign Economies U.S. Dollar Index

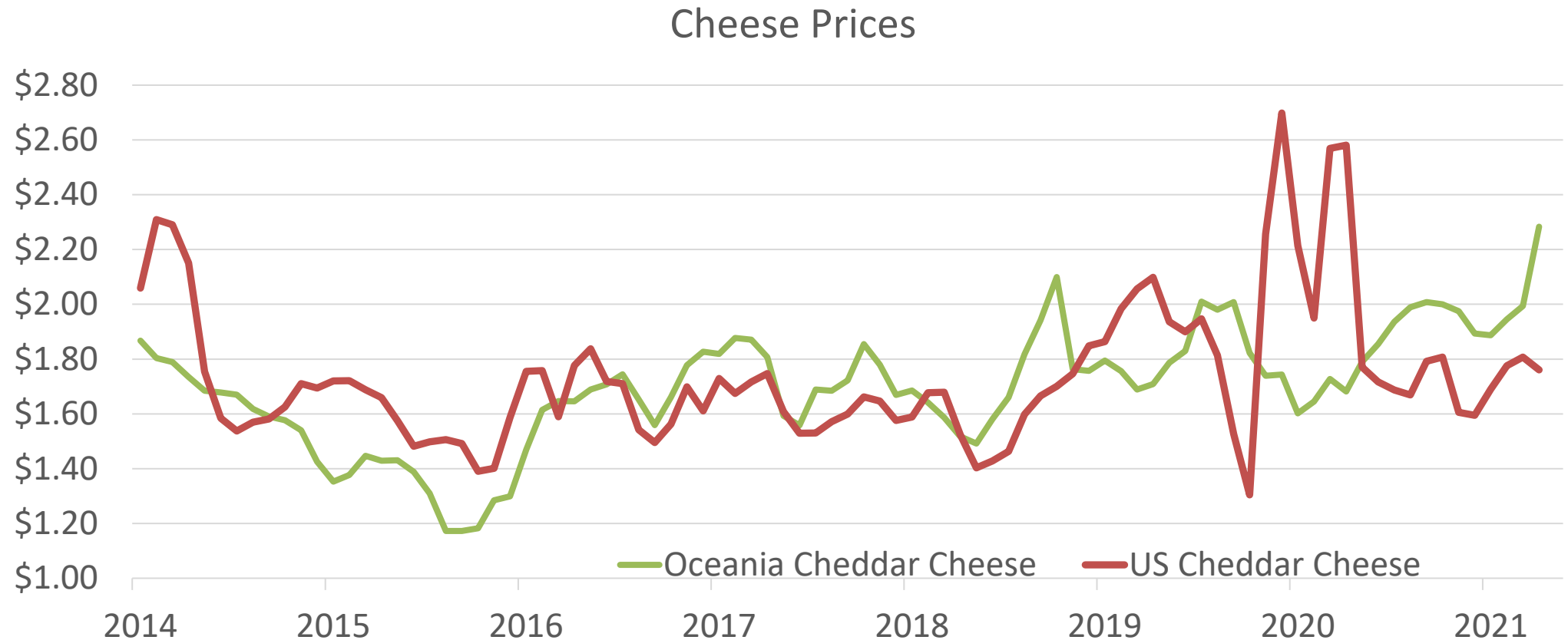


U.S. powder prices are competitive

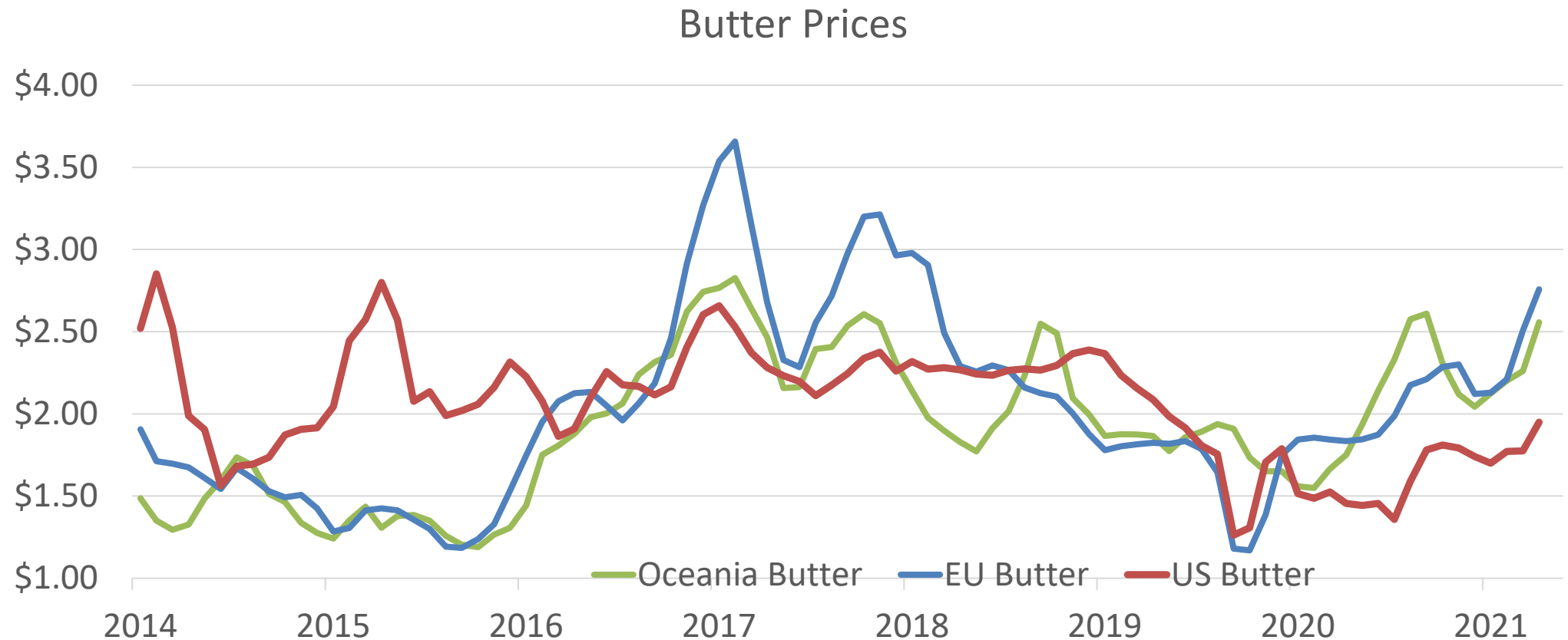




U.S. cheese prices are competitive



U.S. butter prices are competitive



Structural causes of inflation

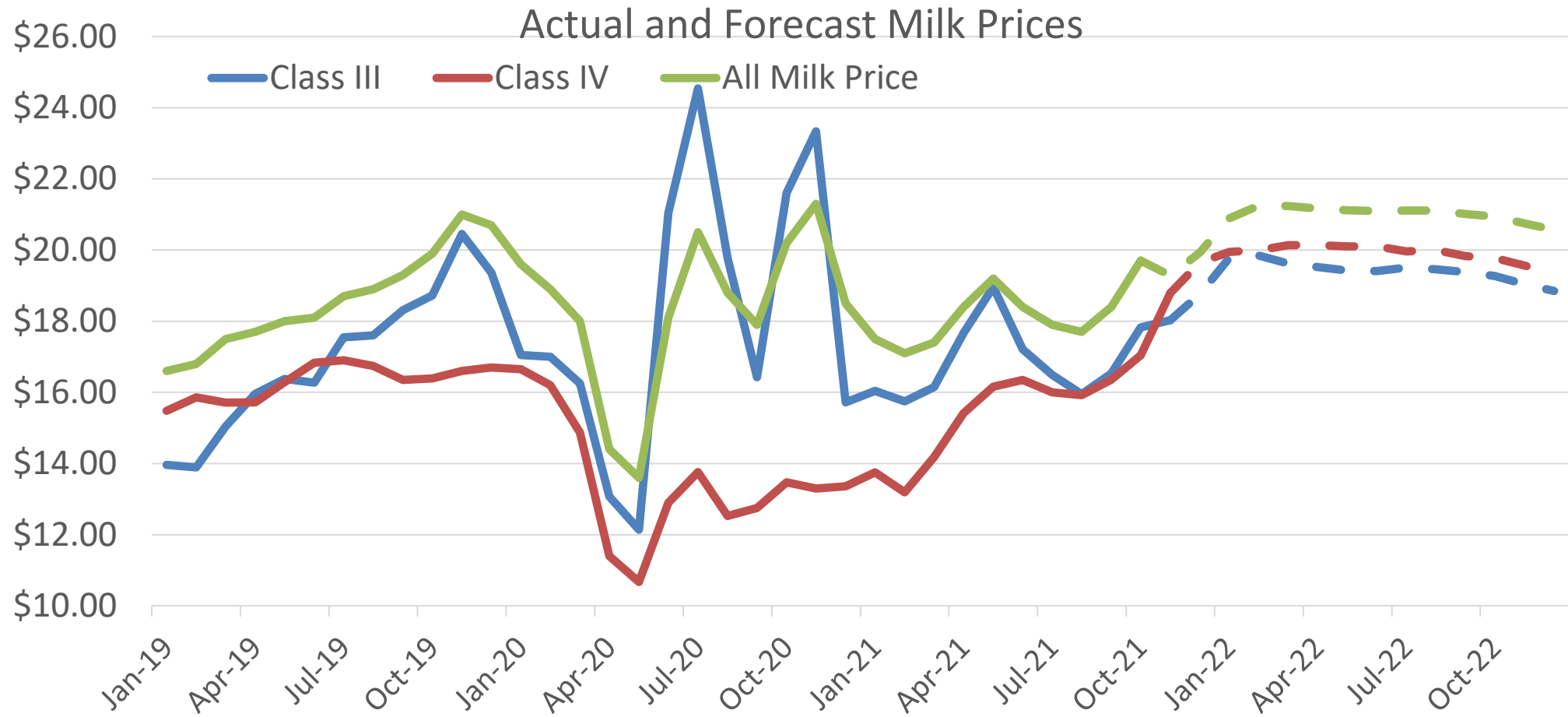
- 40 years ago, inflation was a cost-push from energy
 - OPEC was formed to short oil supplies and increase prices
 - Govt mandate to make cars more efficient
 - Govt incentives to insulate homes
 - Energy is at the base of all things we build and do
- Today, cost-push is coming from labor shortage
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



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.

