

OUTLOOK FOR THE U.S. DAIRY SECTOR IN 2021

Shayle D. Shagam
World Agricultural Outlook Board
U.S. Department of Agriculture

Presented at the 2021 USDA Outlook Forum
February 19, 2021



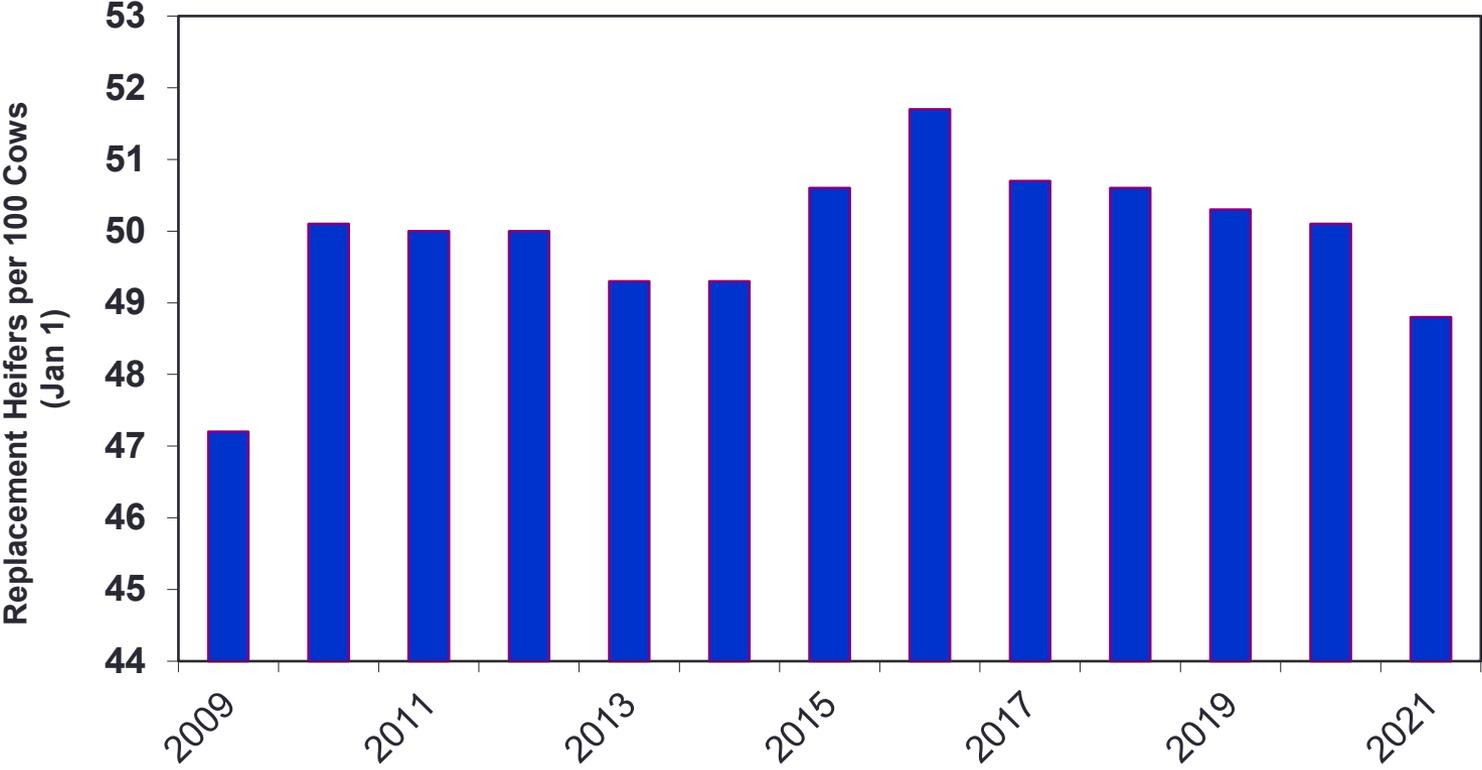
2020 Milk Production Higher...

- Despite sector uncertainties, factors were in play for expansion
 - Milk prices in 2019 and first quarter 2020 highest since 2014
 - Ration value lower than prior year in most of 2020
 - Replacement heifers readily available
- Production in 2020: 223.1 billion pounds
 - Slow increase in cows
 - More rapid than recent-year gains in milk per cow
 - Extra milking day due to leap year

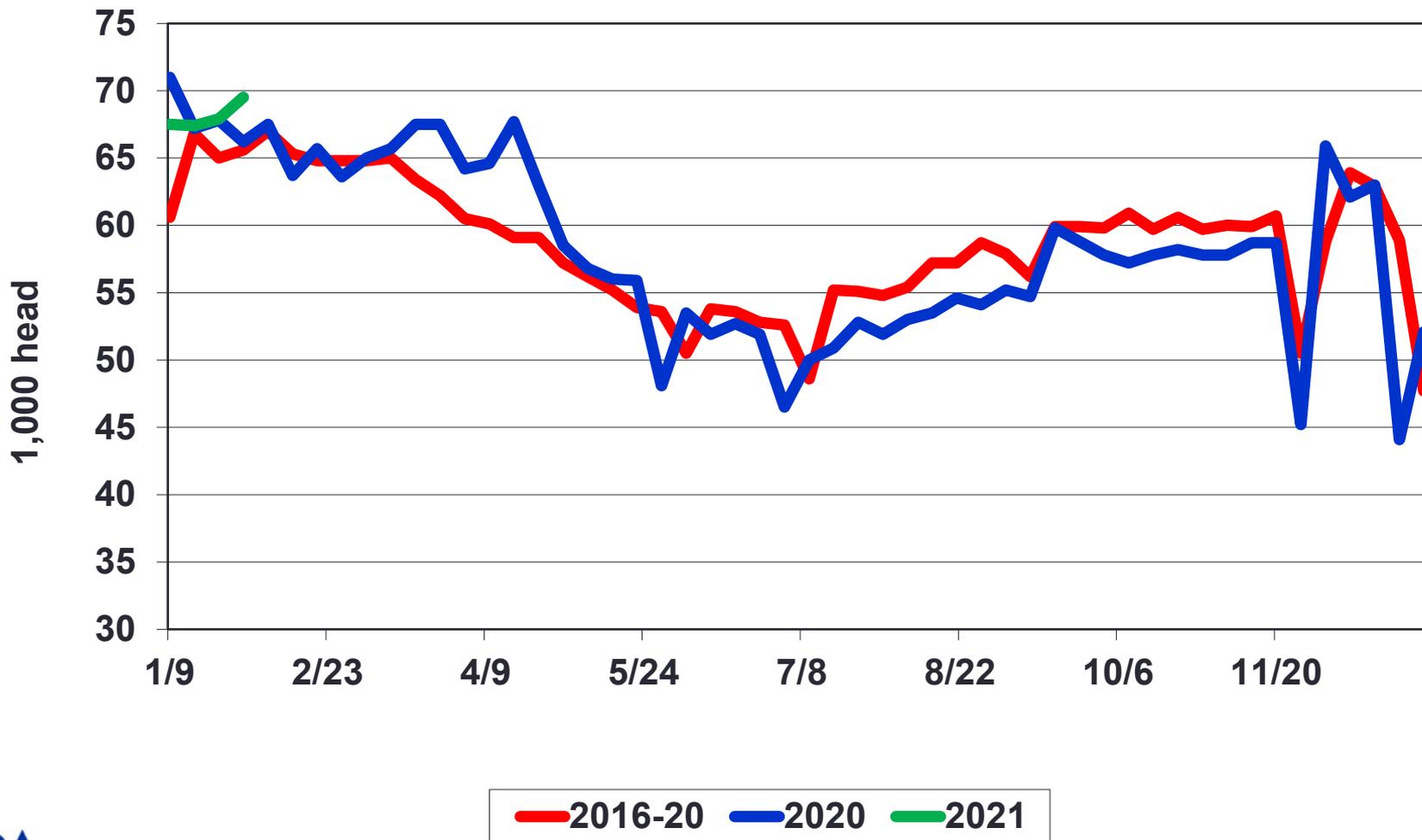
...But Pressure in 2021

- Returns have weakened since late 2020
 - Milk prices lower
 - Feed prices higher
 - Producers holding fewer heifers for addition to the cow herd and expect to have fewer heifers calve.
- Production in 2021: 227.4 billion pounds
 - More cows, but inventory will decline during the year
 - Slightly more per-day rapid growth in milk per cow than 2020

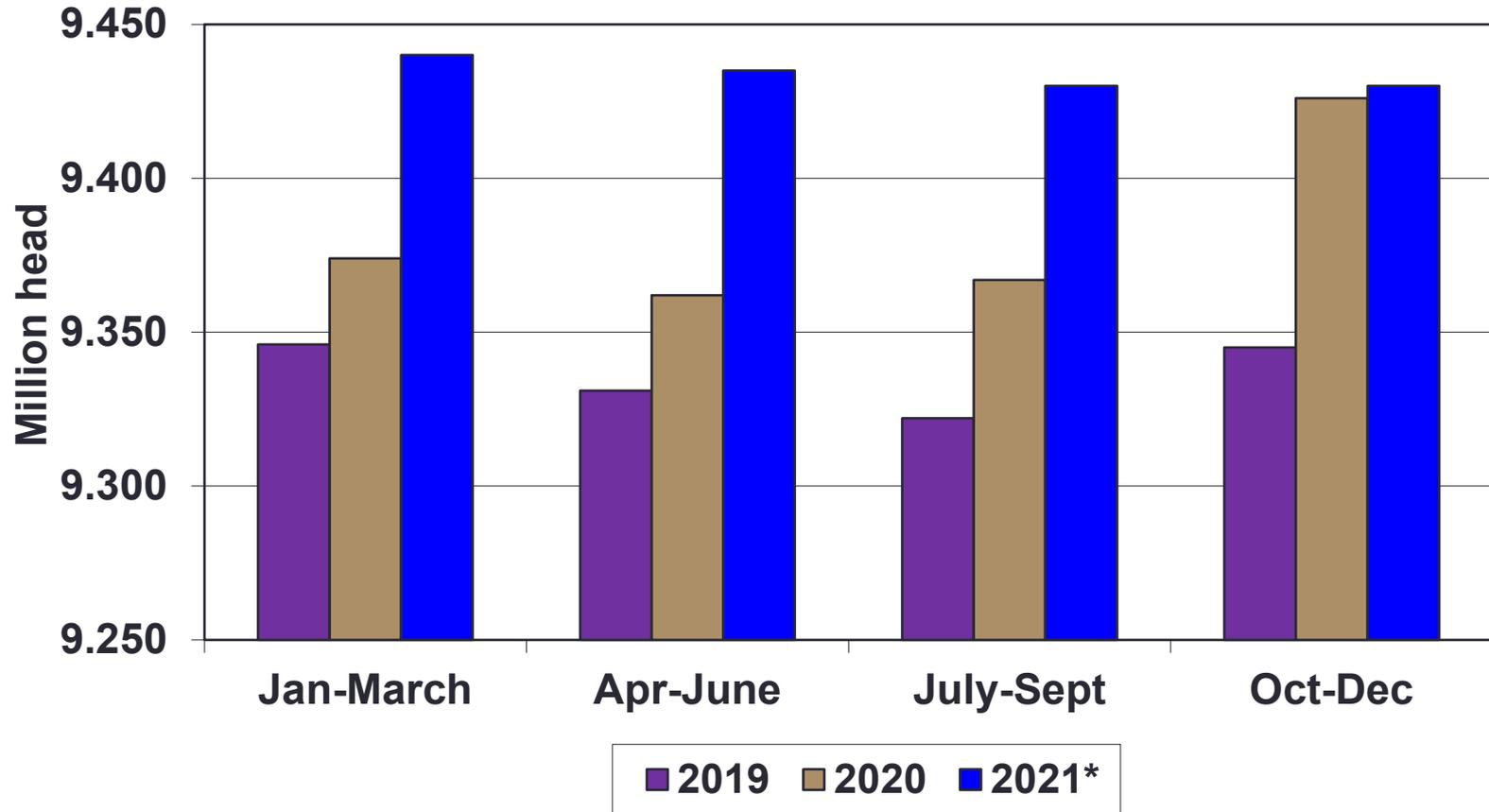
Producers Holding Fewer Heifers For Cow Replacement



Weekly Dairy Cow Slaughter Near Last Year Levels

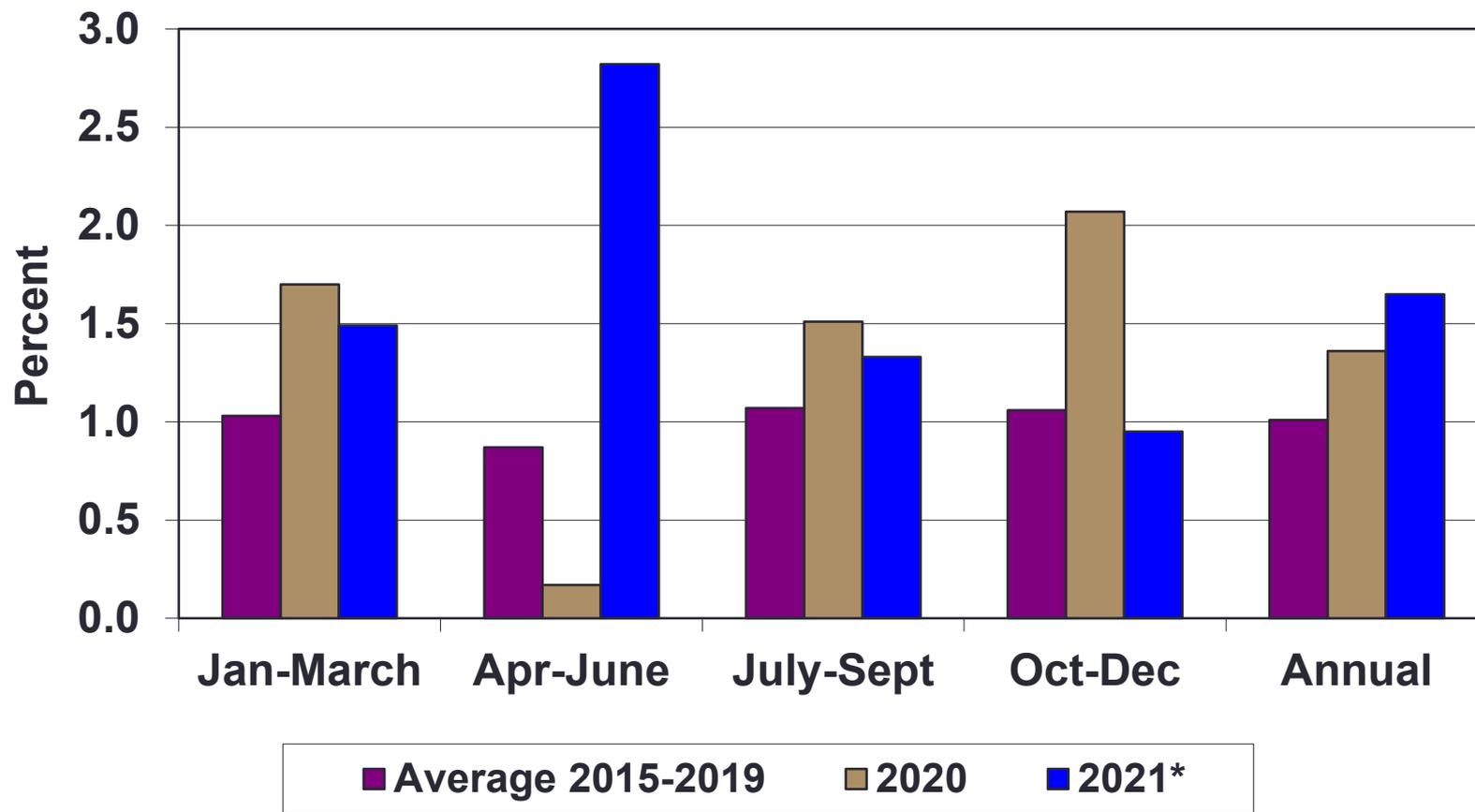


Quarterly Average U.S. Cow Herd



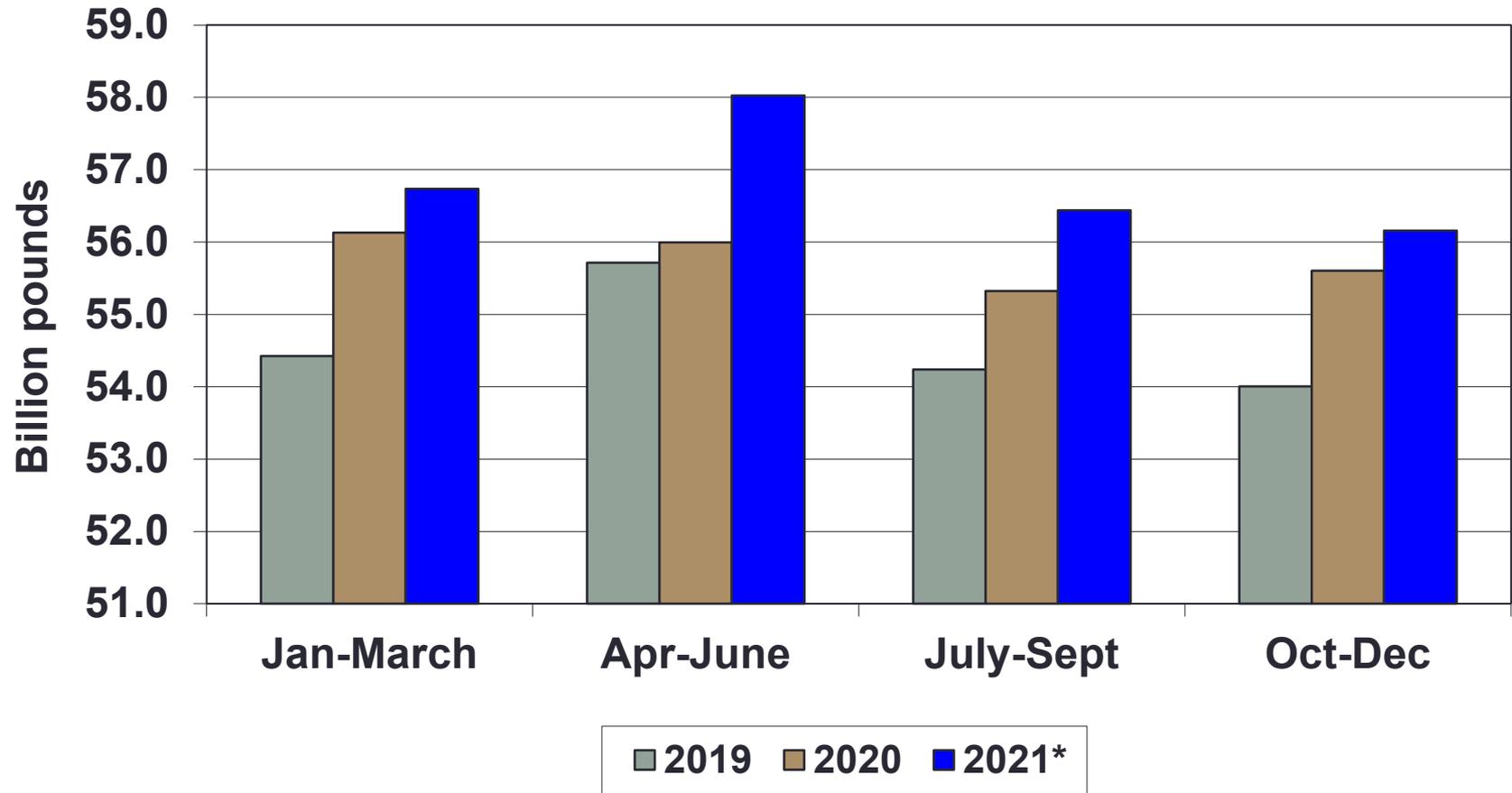
Milk per Cow Growth

Adjusted for Leap Year



*Forecast

Quarterly U.S. Milk Production

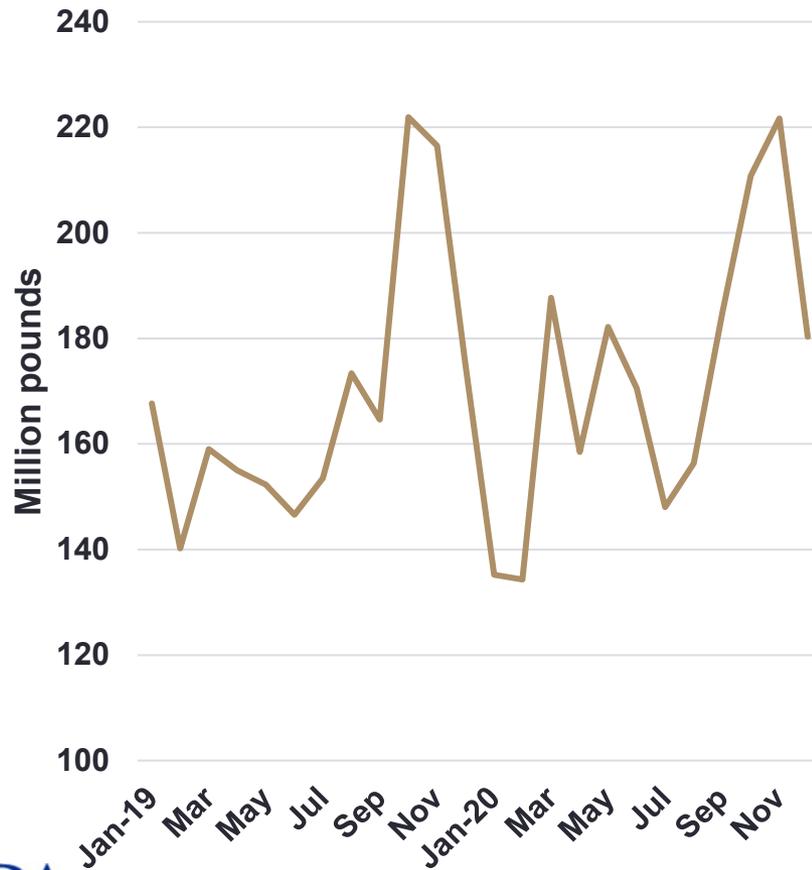


COVID-19 Caused Significant Shocks to Demand

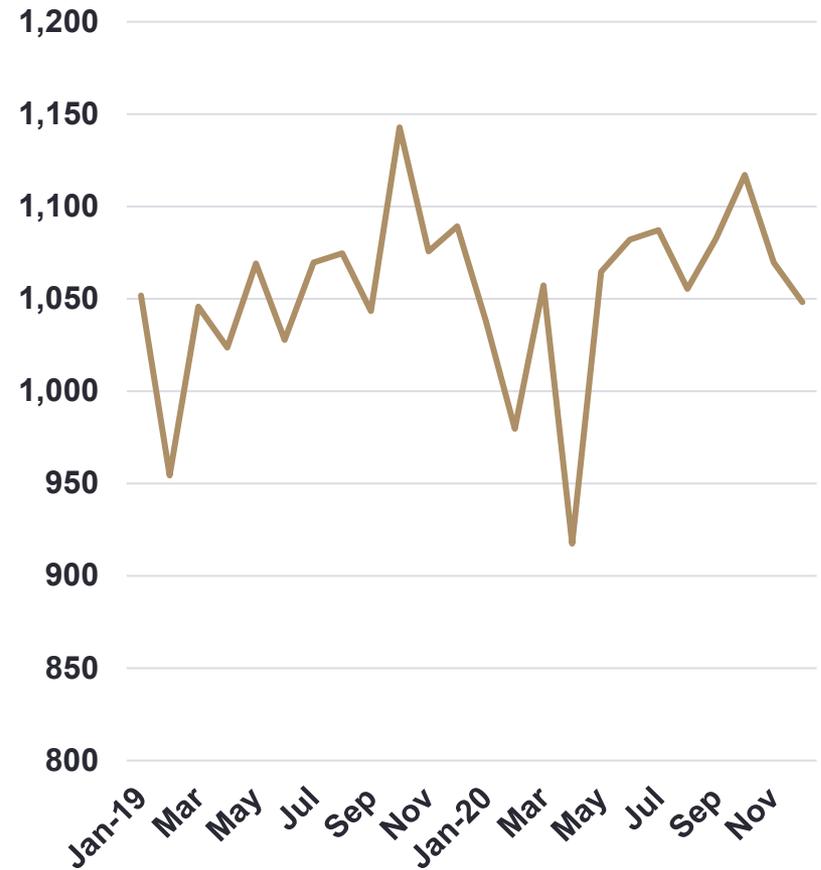
- Domestic commercial use declined with stay-at-home orders and production constraints
 - Fat basis commercial use fell sharply in QII but rebounded to average 1 percent higher for the year
 - Skim solids commercial use fell in QII and never fully recovered, averaging 1 percent lower for the year.
 - Prices were volatile.

Domestic Commercial Use of Cheese and Butter Declined, but Then Rebounded

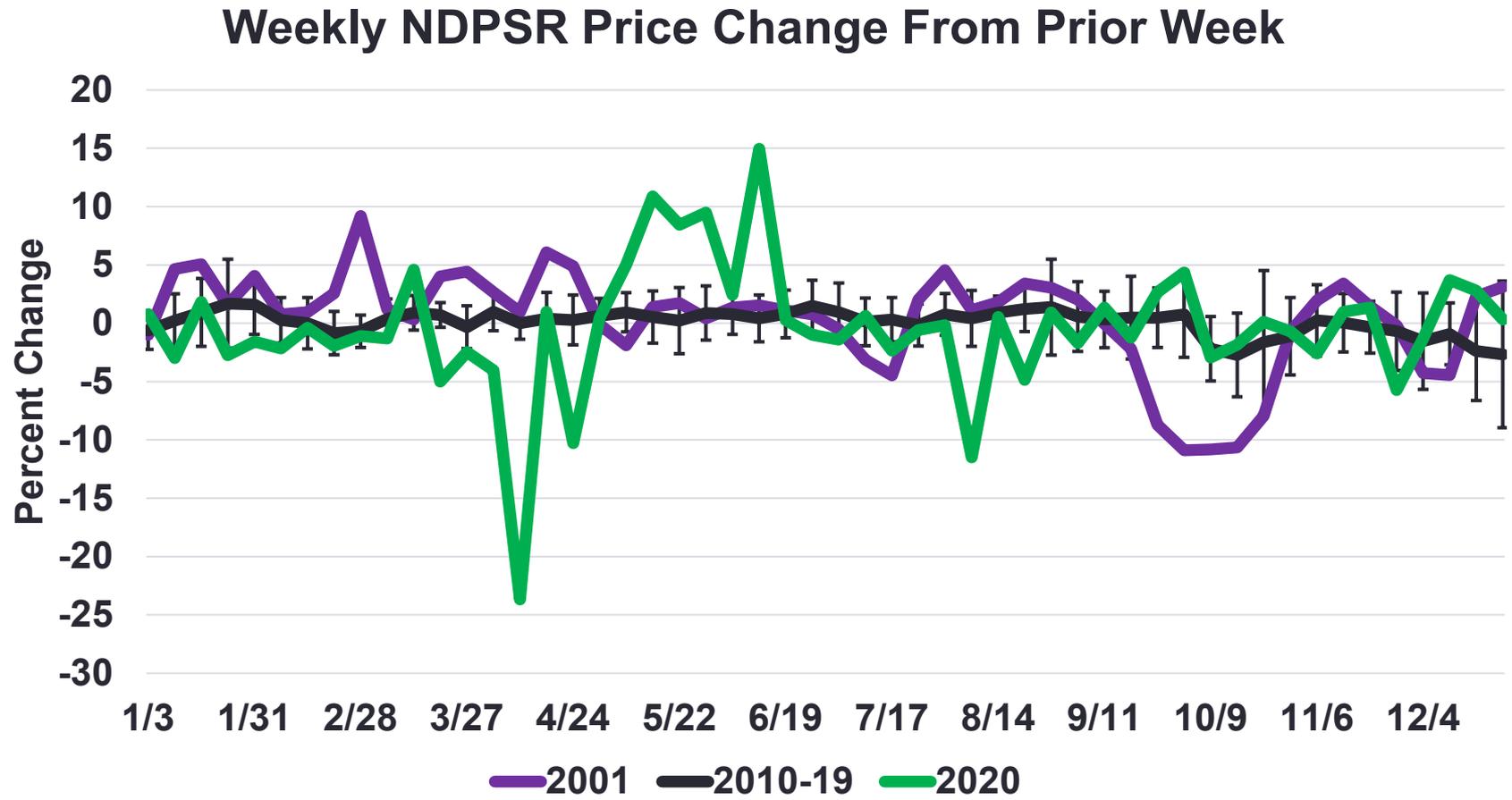
Butter



Cheese

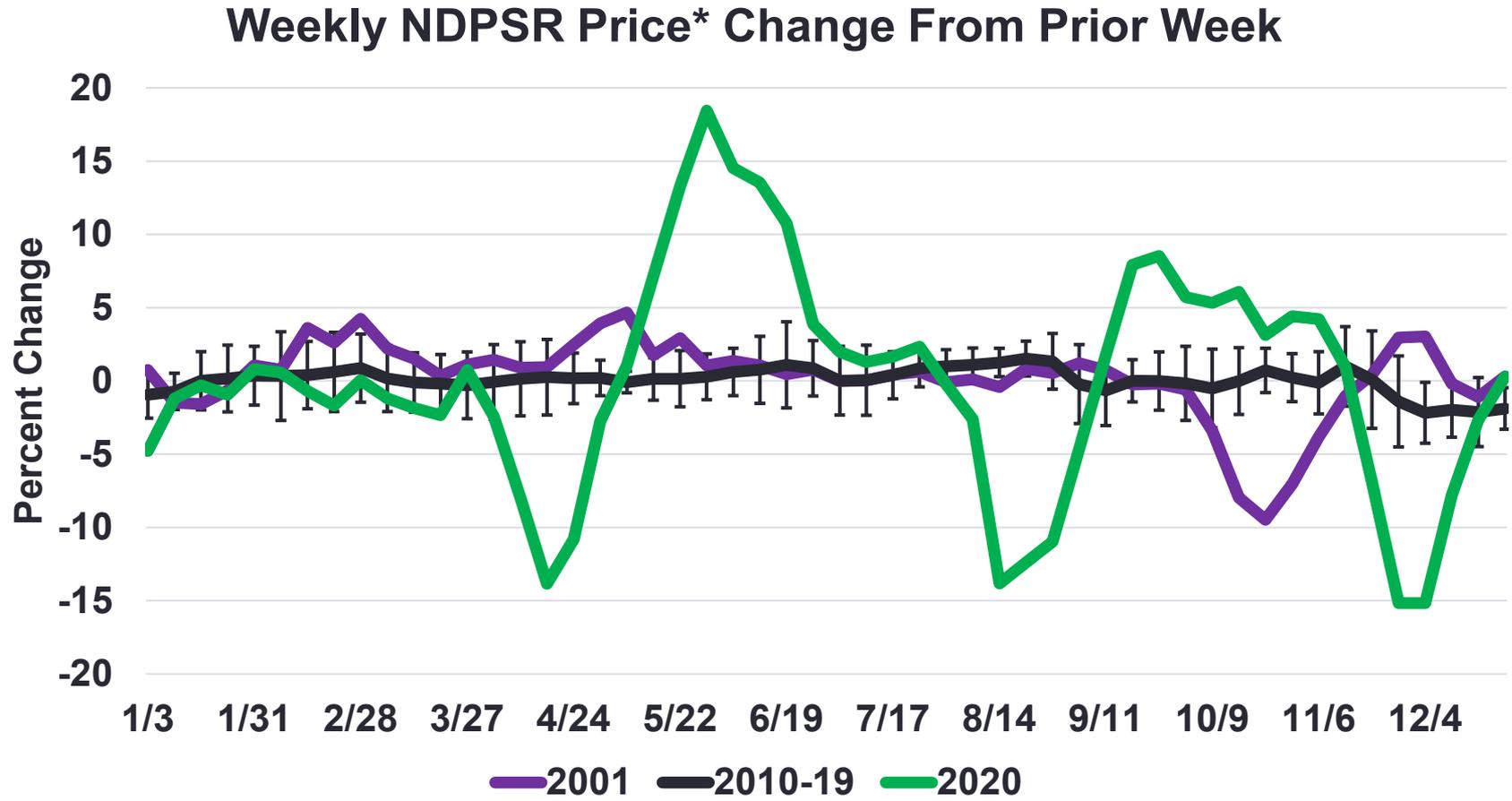


Butter Price Movement Exceeded Post-9/11/2001 Volatility



Error bars equal 1 standard deviation from the 2010-19 average

Cheese Prices Exhibited Extended Volatility

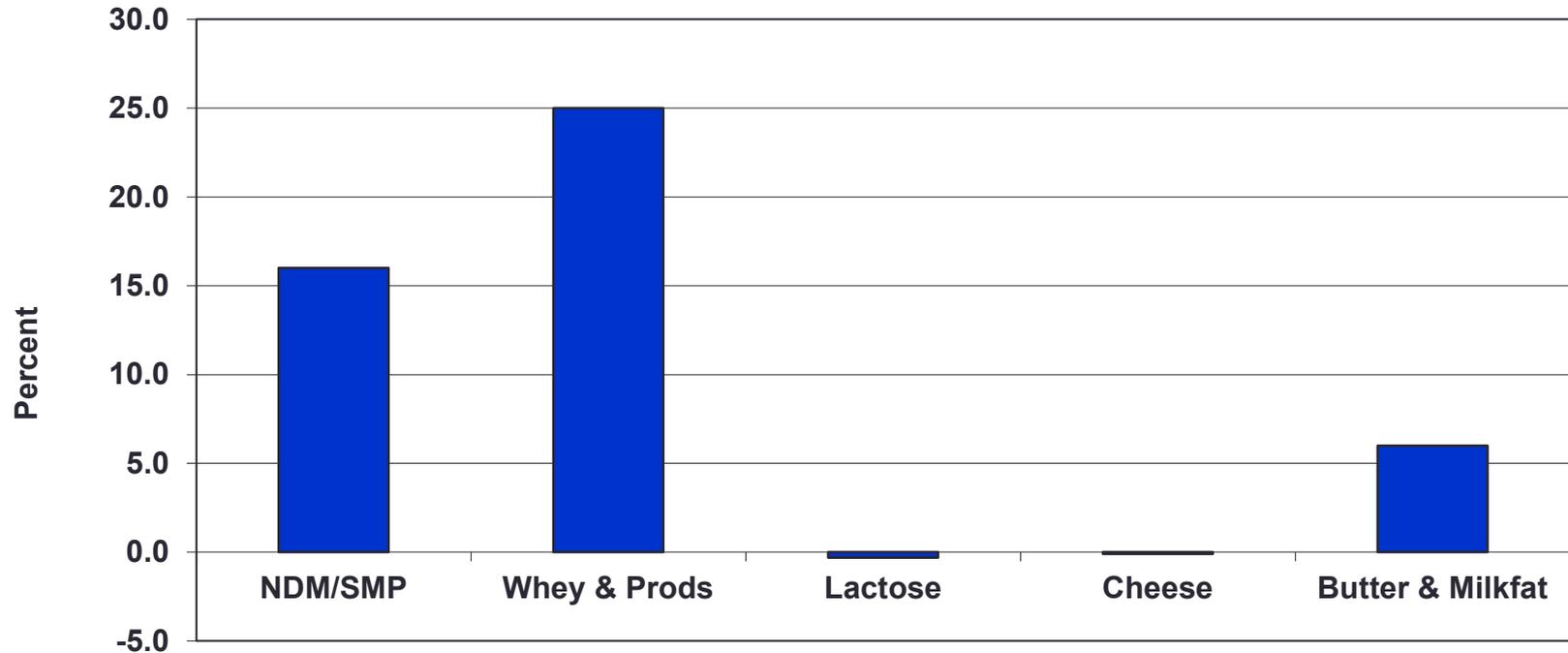


*Weighted Average, Blocks and Barrels
Error bars equal 1 standard deviation from the 2010-19 average

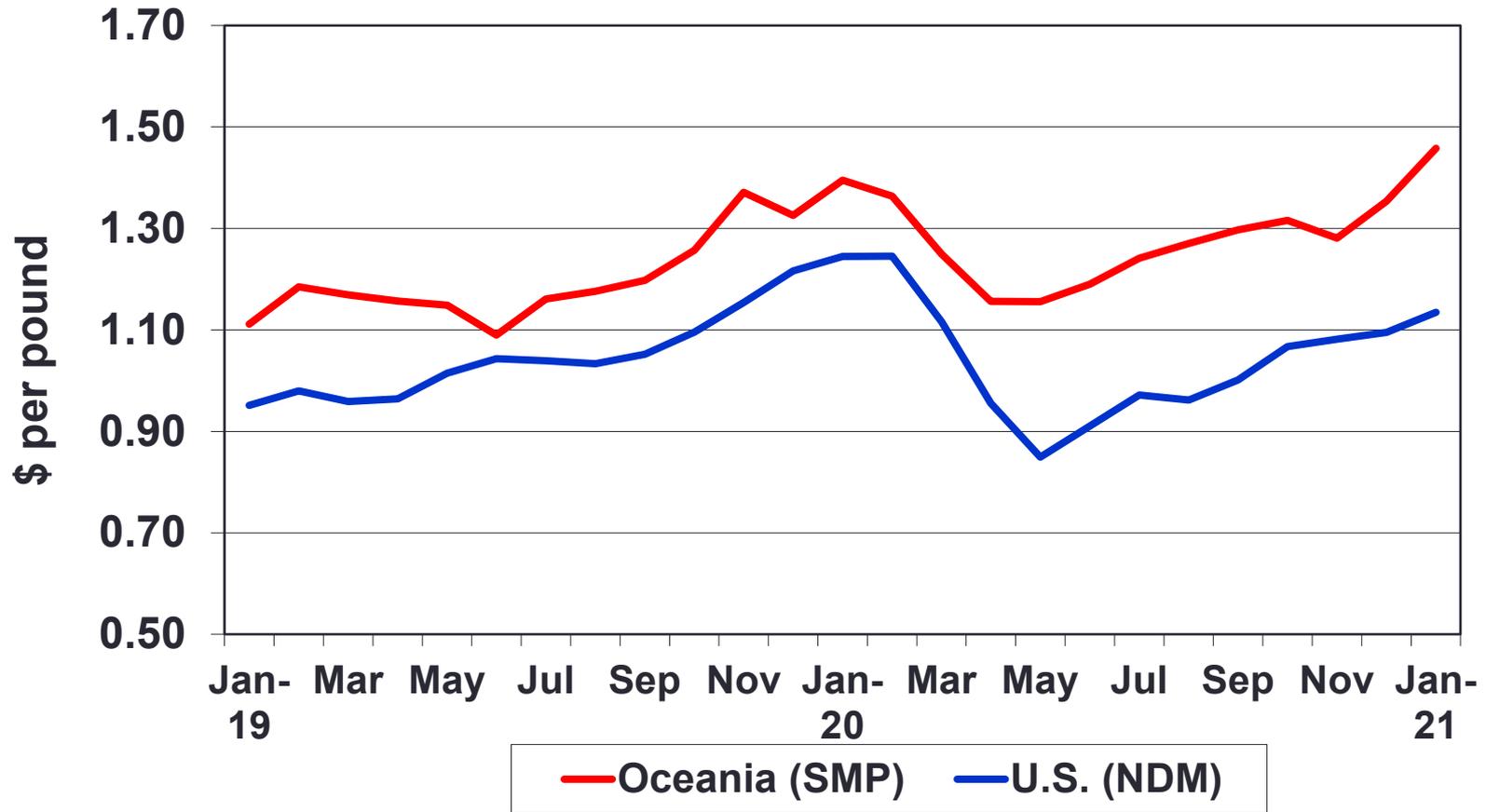
COVID-19 Caused Significant Shocks to Demand

- Domestic commercial use declined with stay-at-home orders and production constraints
 - Fat basis commercial use fell sharply in QII but rebounded to average 1 percent higher for the year
 - Skim solids commercial use fell in QII and never fully recovered, averaging 1 percent lower for the year.
 - Prices were volatile
- Exports responded differently
 - Fat basis exports remained strong in QII and were 2 percent higher in 2020
 - Skim-solids exports remained strong in QII and were 14 percent higher in 2020
 - Price competitiveness helped some product sales

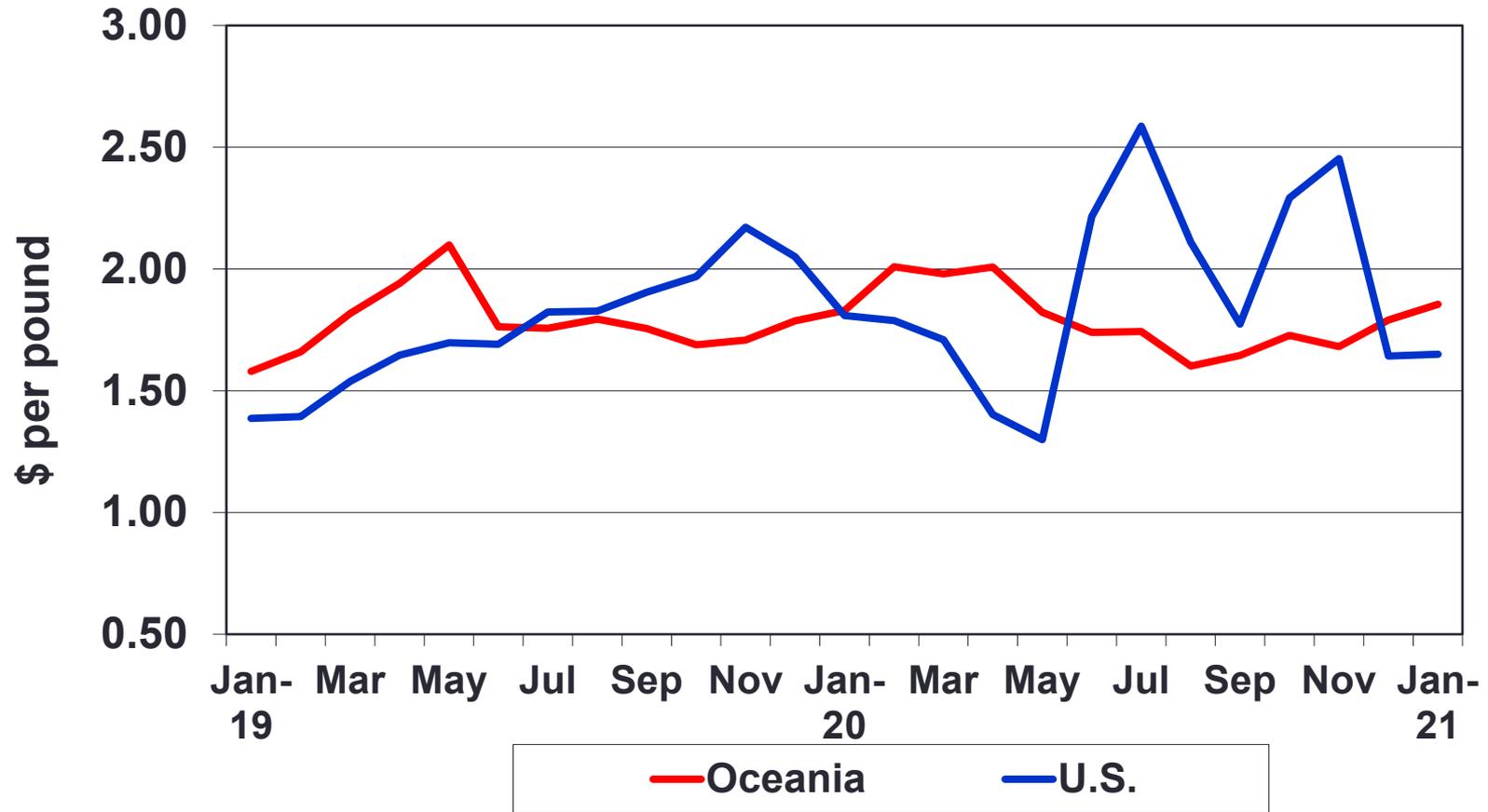
Growth in 2020 Major Product Exports



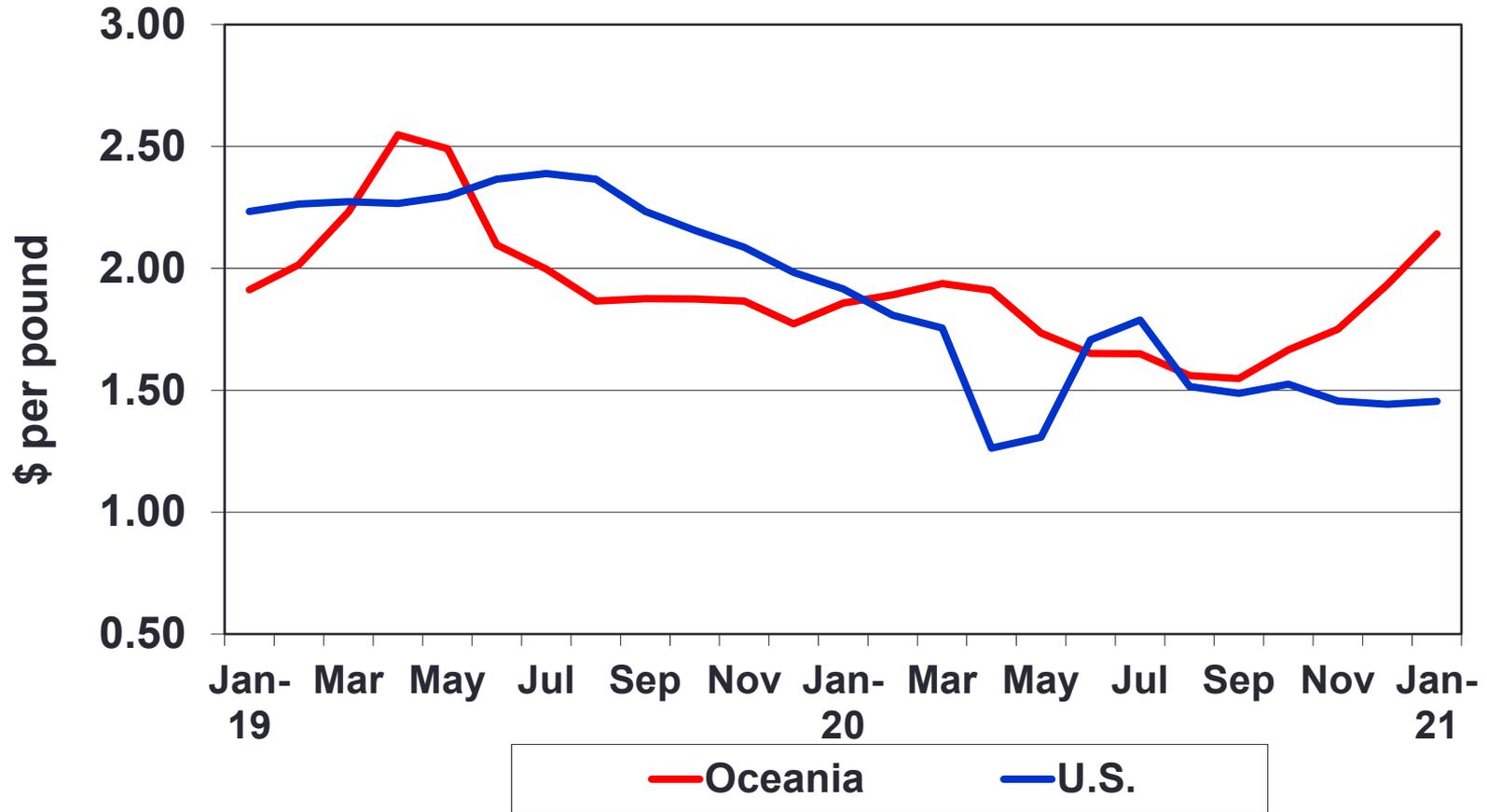
Nonfat/Skim Milk Prices



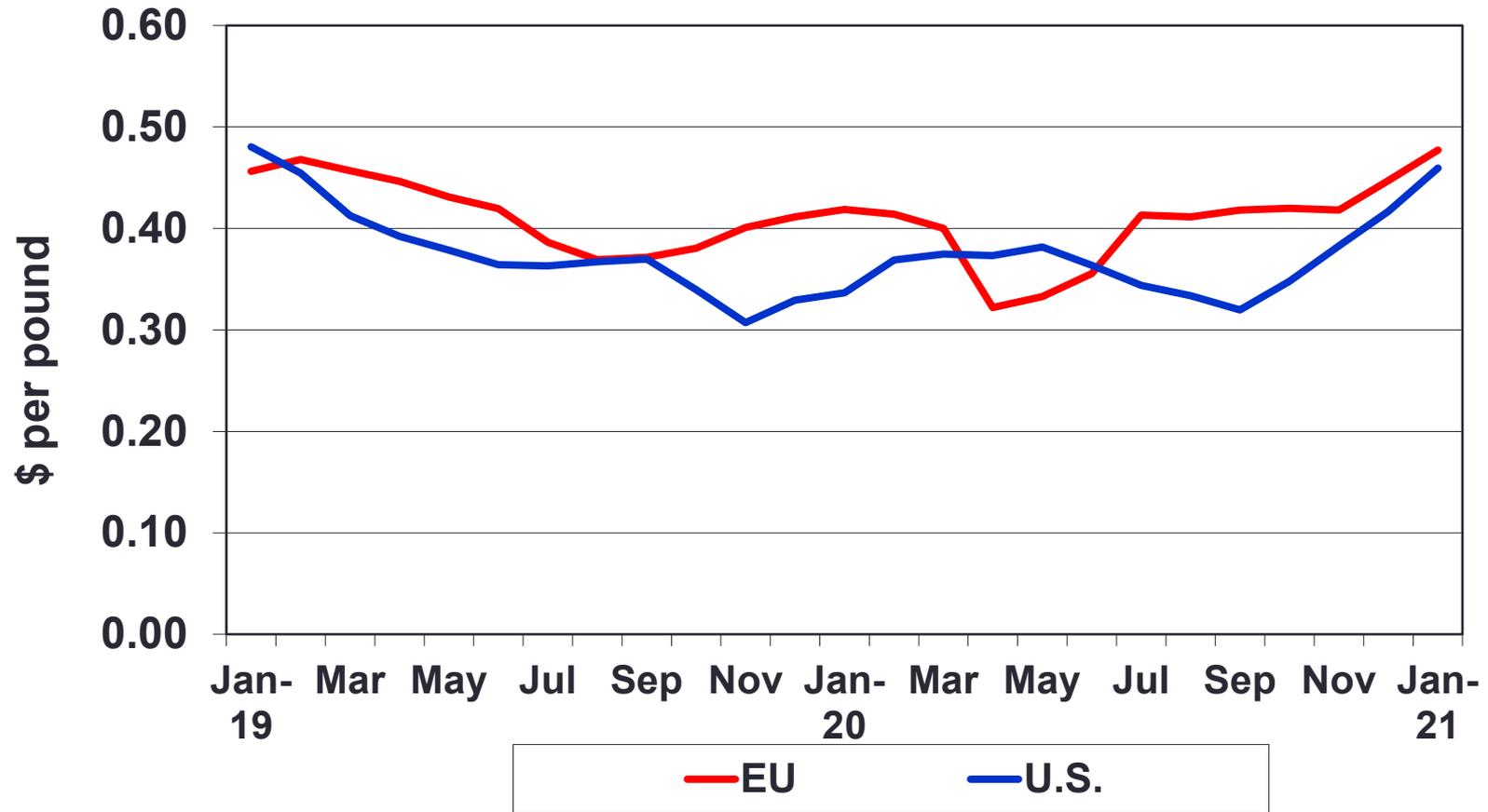
Cheddar Cheese Prices



Butter Prices



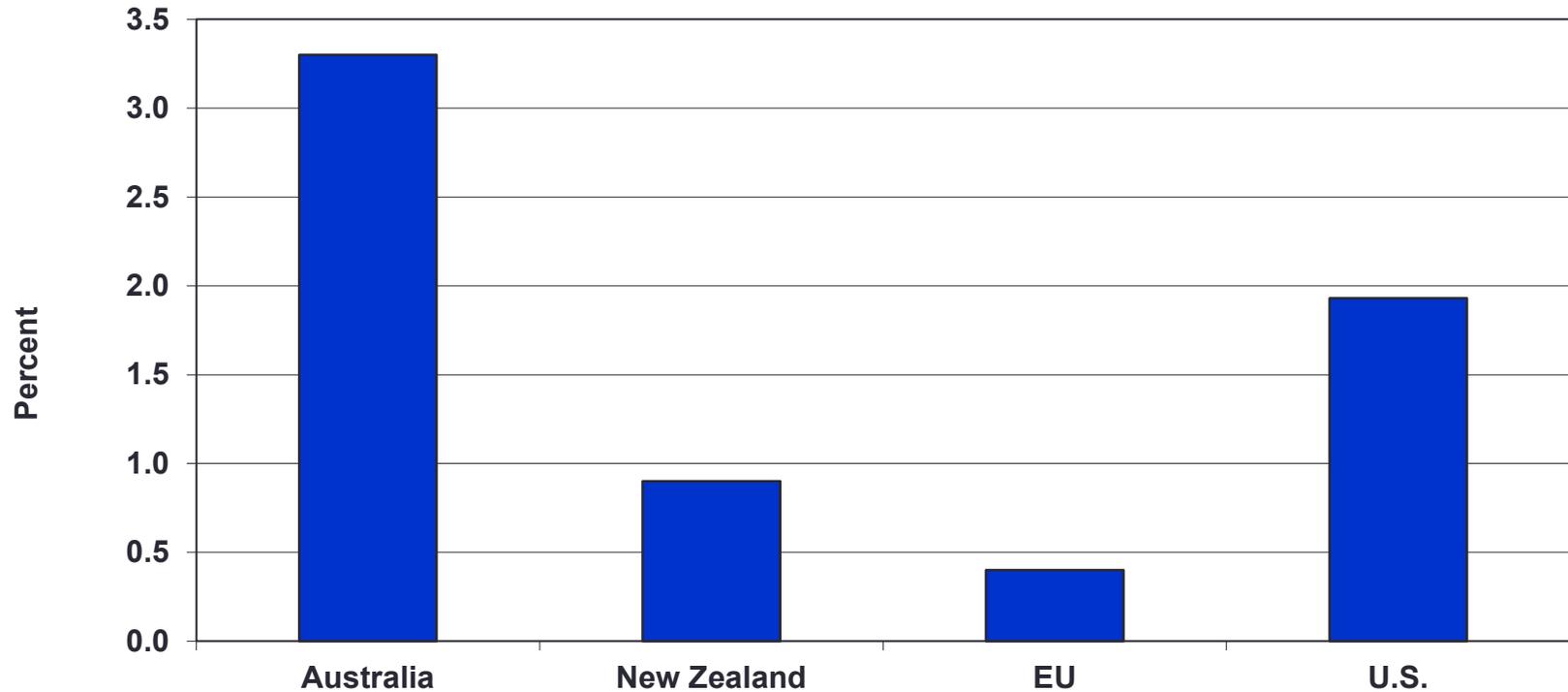
Dried Whey Prices



Growth in Both Domestic Demand and Exports in 2021

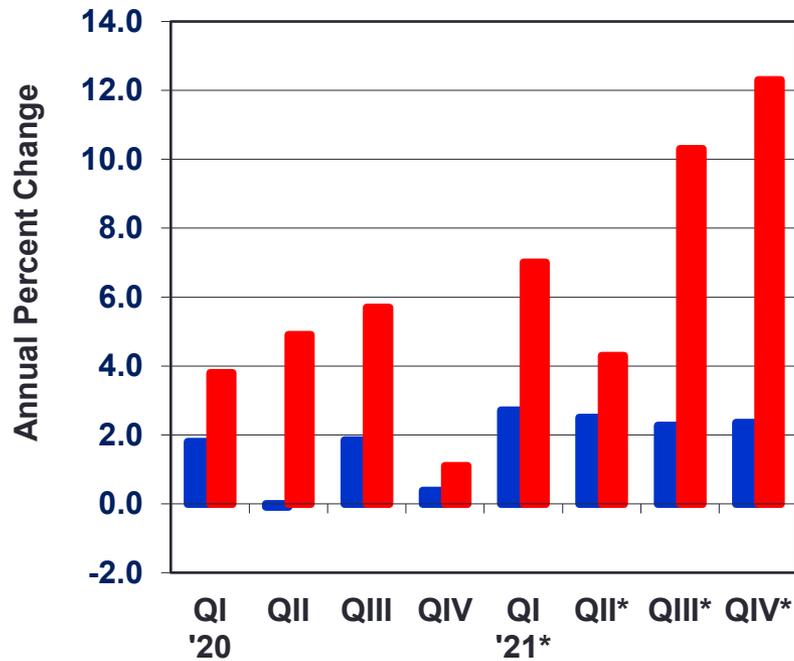
- Domestic use will increase through the year
 - Growth in the economy and declining unemployment
 - Reduction in current level of COVID-19 related restrictions
 - Lower prices for cheese and butter
- Exports will increase in 2021
 - Improving global economy
 - Increased price competitiveness
 - Modest growth in milk production for most competing exporters
 - Logistical constraints may affect competition

Forecast Growth in 2021 Major Exporter Milk Production

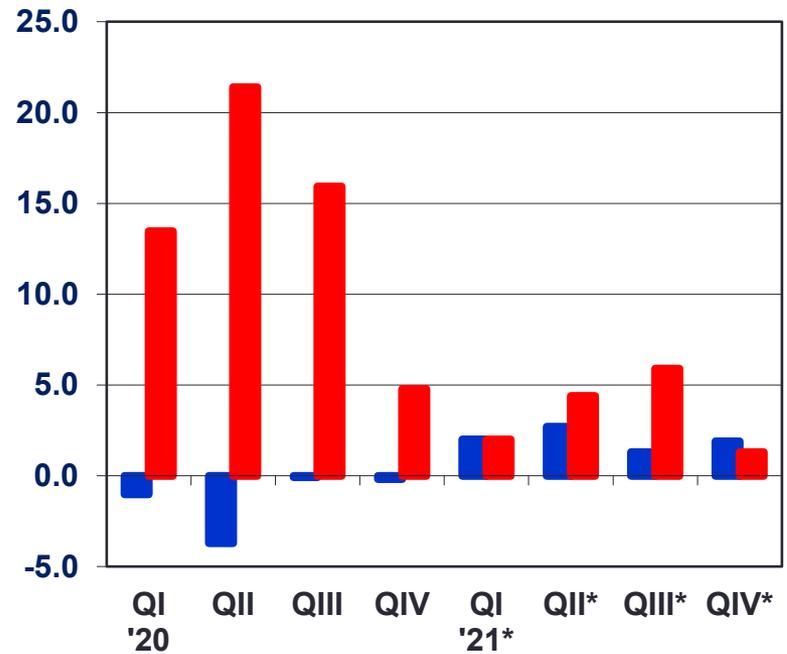


Growth in Domestic Demand and Exports

Fat Basis



Skim Solids Basis



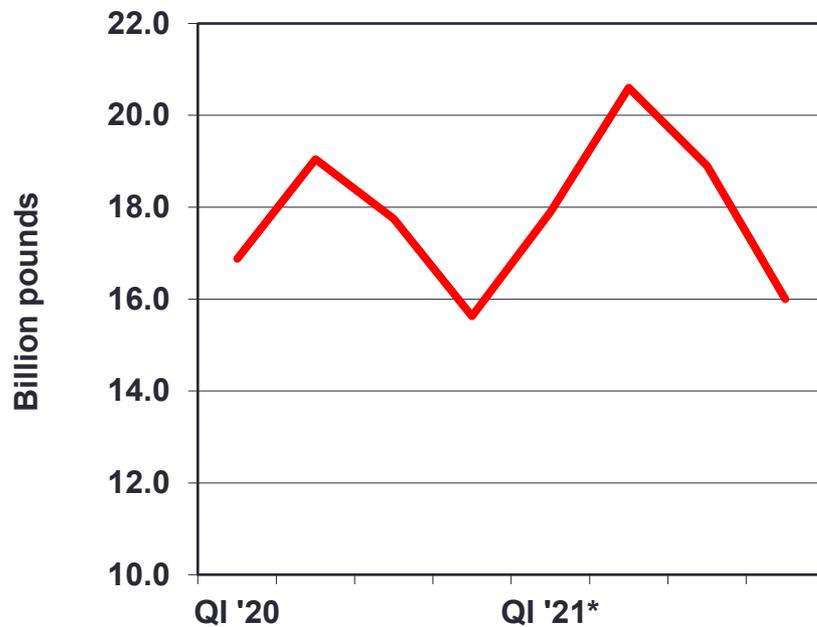
■ Domestic Use ■ Exports



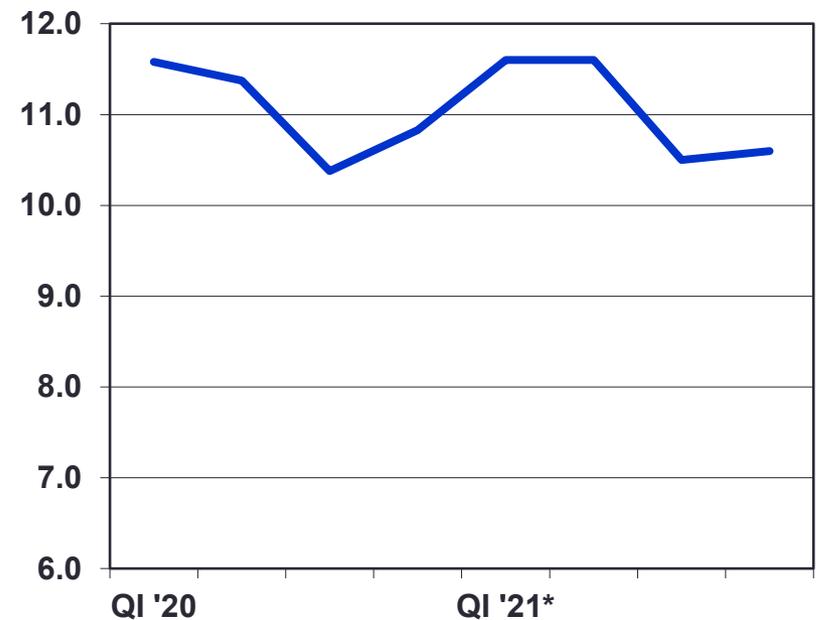
*Forecast

...But Large Stocks Will Overhang the Market For Much of 2021

Fat Basis



Skim Solids Basis

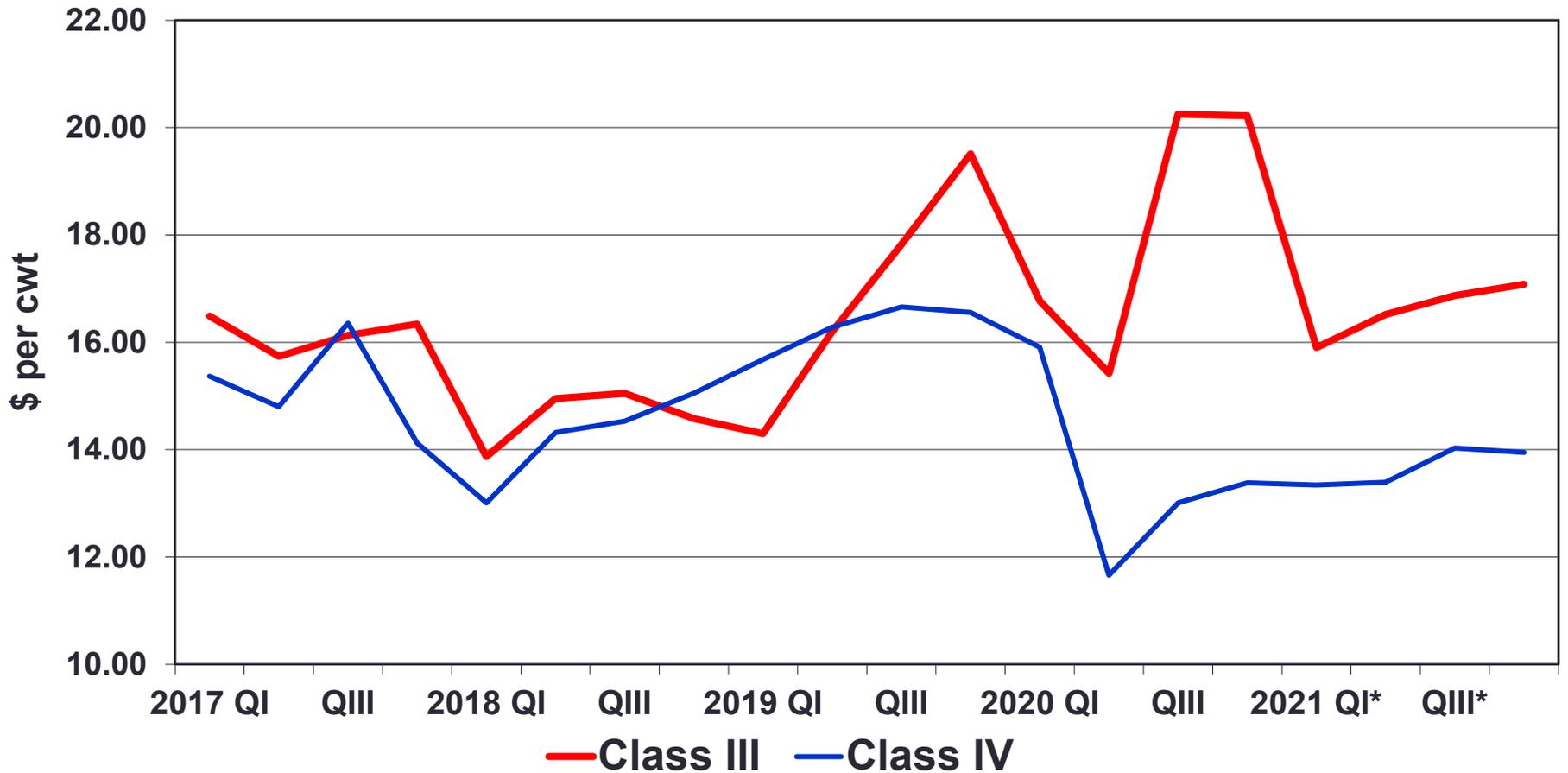


*Forecast

2021 Dairy Prices Will Balance Larger Supplies vs Improving Demand

- Class III price to average \$16.60 per cwt
 - Cheese price weaker: \$1.695 per pound
 - Whey price higher: \$0.480 per pound
- Class IV price to average \$13.70 per cwt
 - Butter price lower: \$1.455 per pound
 - Nonfat dry milk price higher: \$1.125 per pound
- All milk price to average \$17.15 per cwt

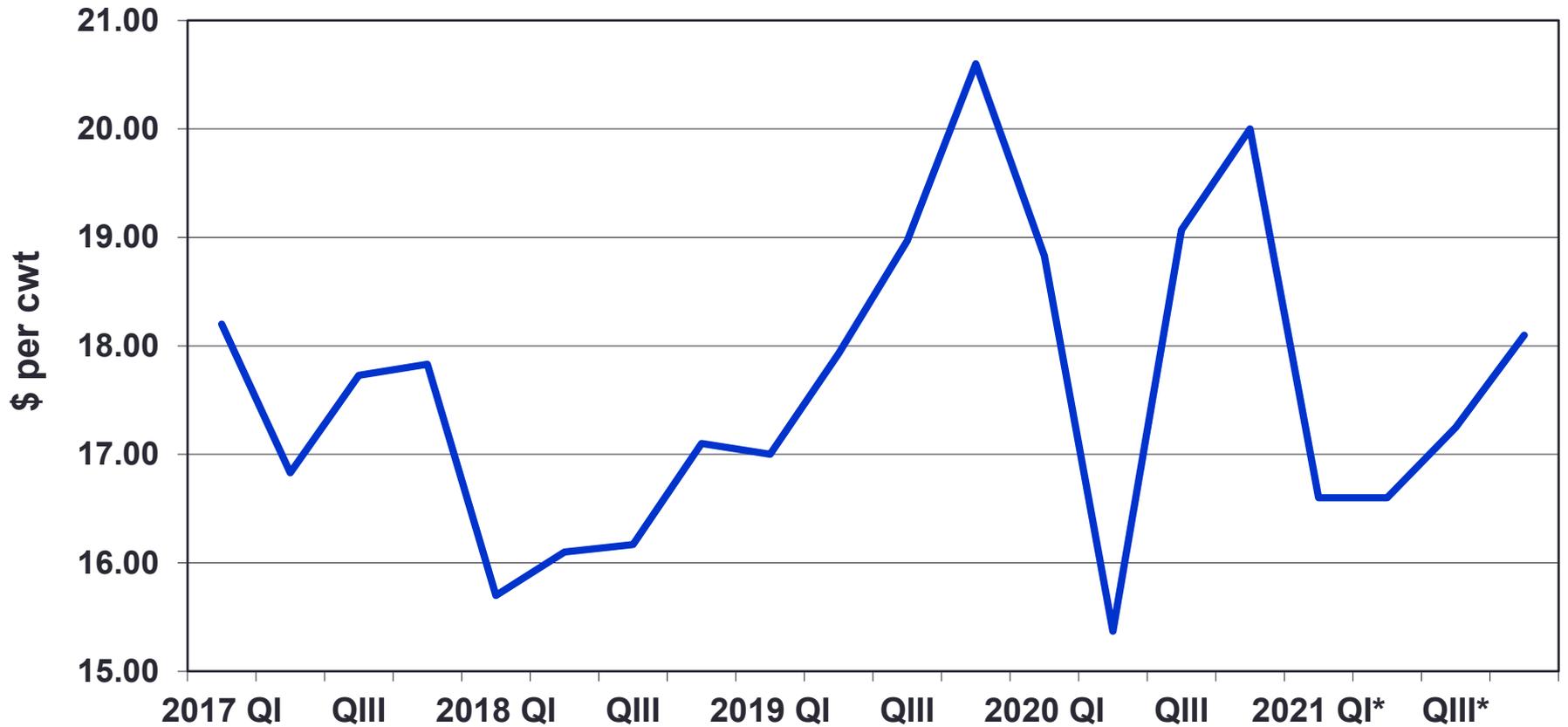
Quarterly Class Prices



*Forecast



Quarterly Average All Milk Prices



*Forecast

Additional Information on the Outlook for 2021 is Available on the Following Websites:

- World Agricultural Supply and Demand Estimates
 - <http://www.usda.gov/oce/commodity/wasde/index.htm>
- Livestock, Dairy, and Poultry Situation and Outlook
 - <https://usda.library.cornell.edu/concern/publications/g445cd121?locale=en>
- Dairy: World Markets and Trade
 - <http://www.fas.usda.gov/data/dairy-world-markets-and-trade>