

Shocks, Supply Chain Disruptions, and Food Prices

David L. Ortega

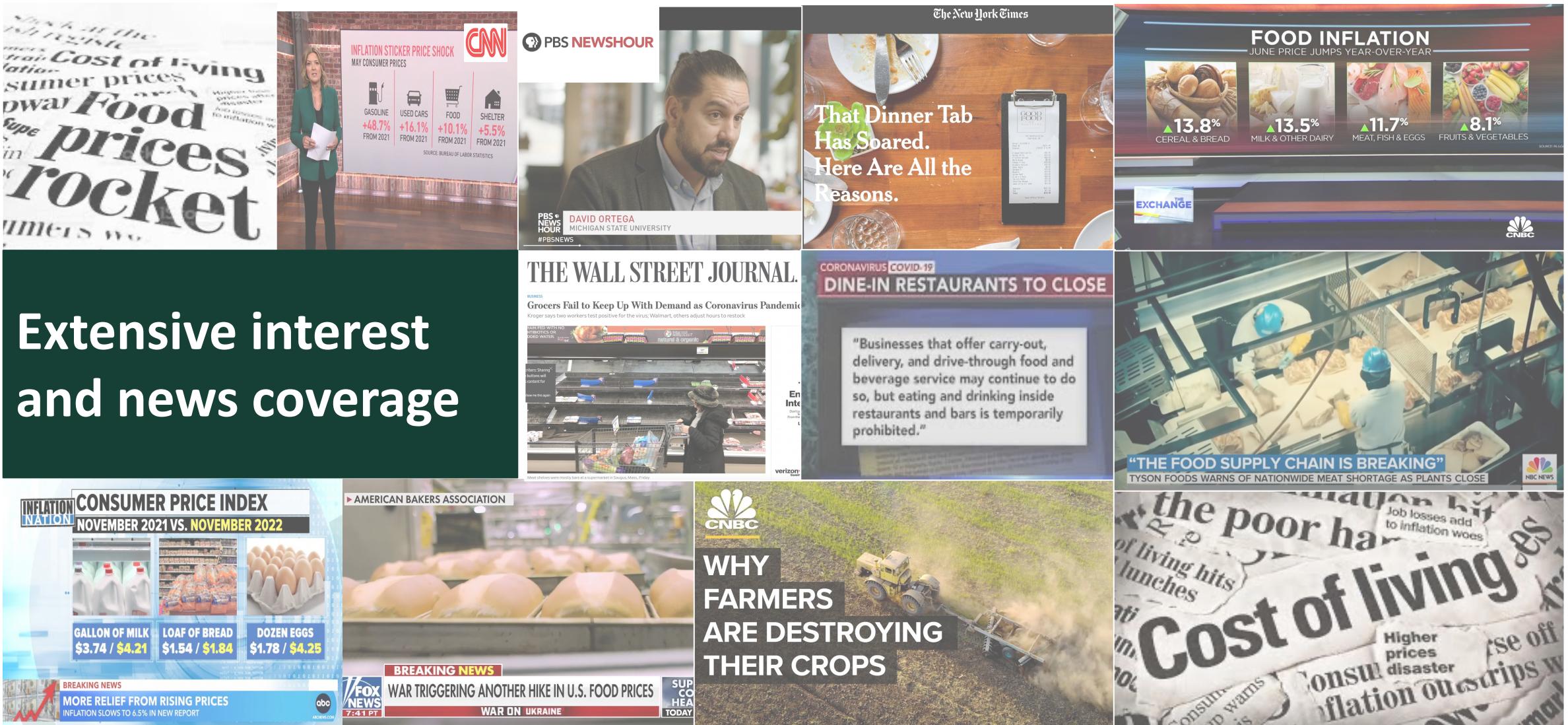
Professor

Noel W. Stuckman Chair in Food Economics & Policy

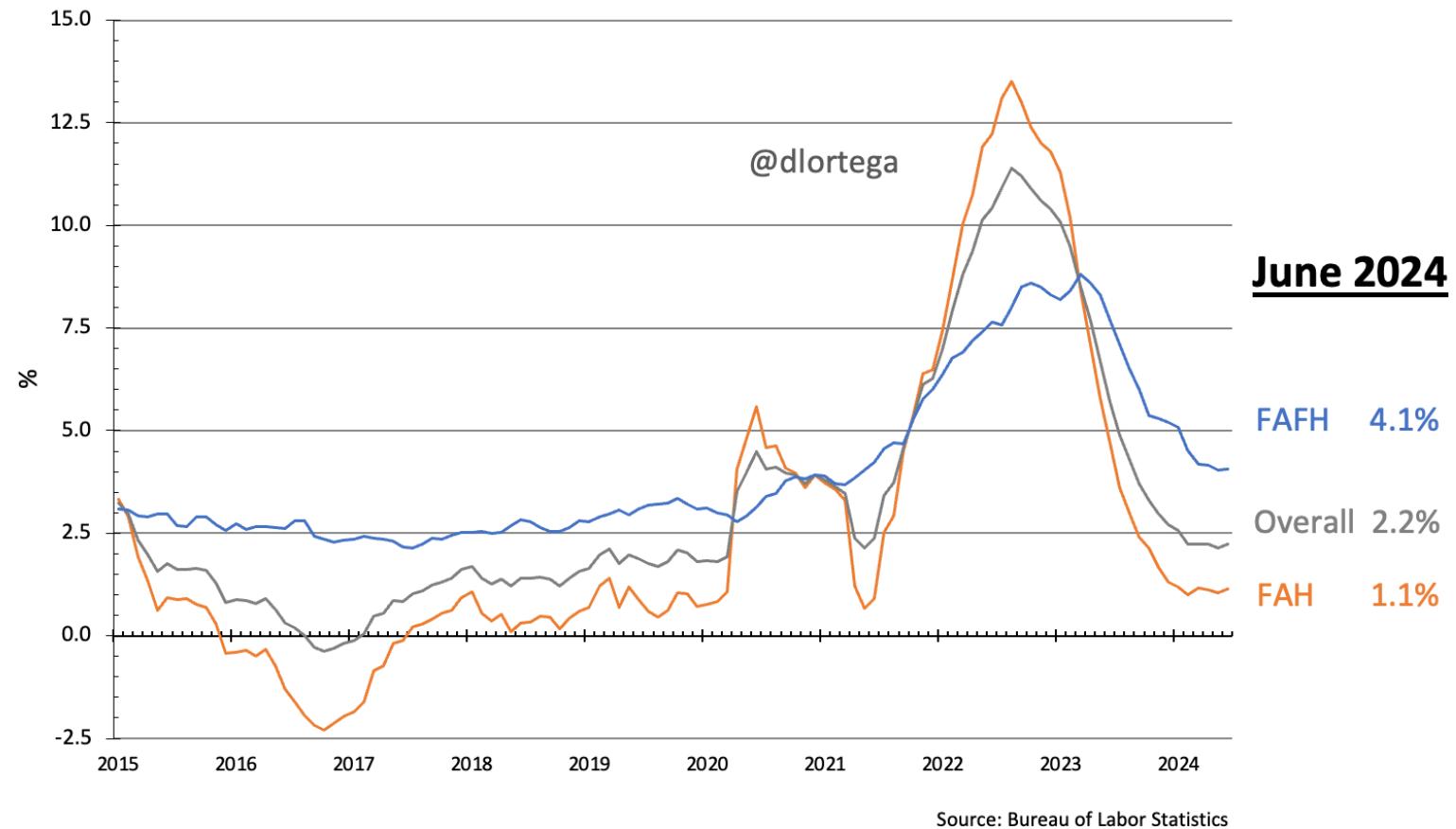


MICHIGAN STATE
UNIVERSITY

July 31st, 2024

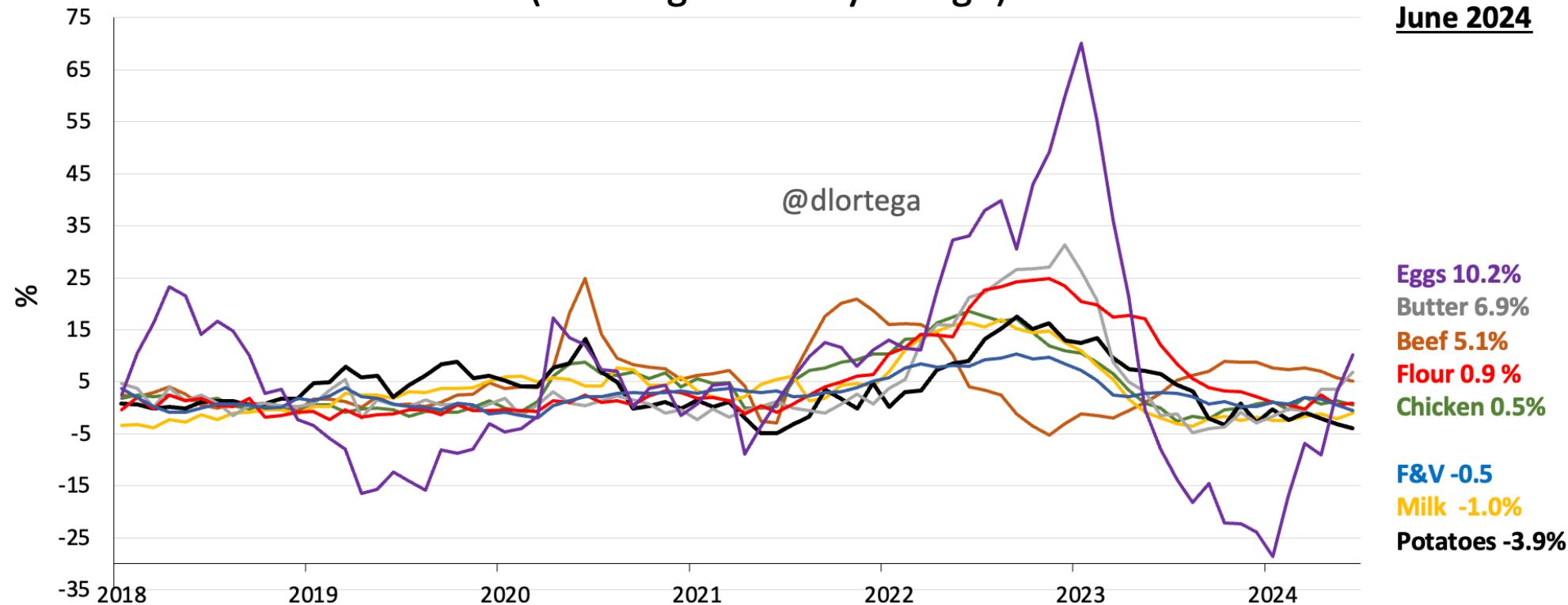


U.S. Food Price Increases: Groceries vs Restaurants (% change from one year ago)



U.S. Consumer Food Prices (% change from a year ago)

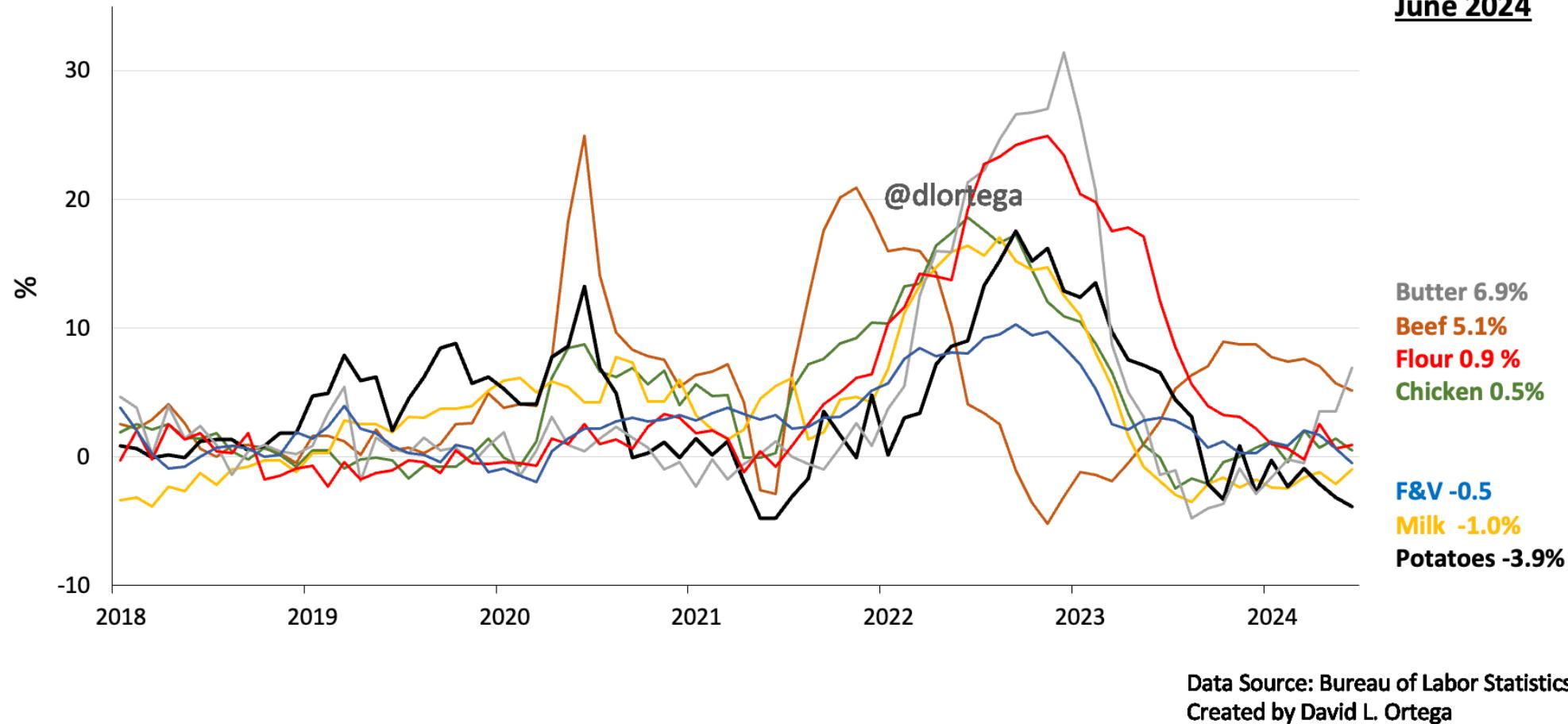
June 2024



Data Source: Bureau of Labor Statistics
Created by David L. Ortega

U.S. Consumer Food Prices (% change from a year ago)

June 2024

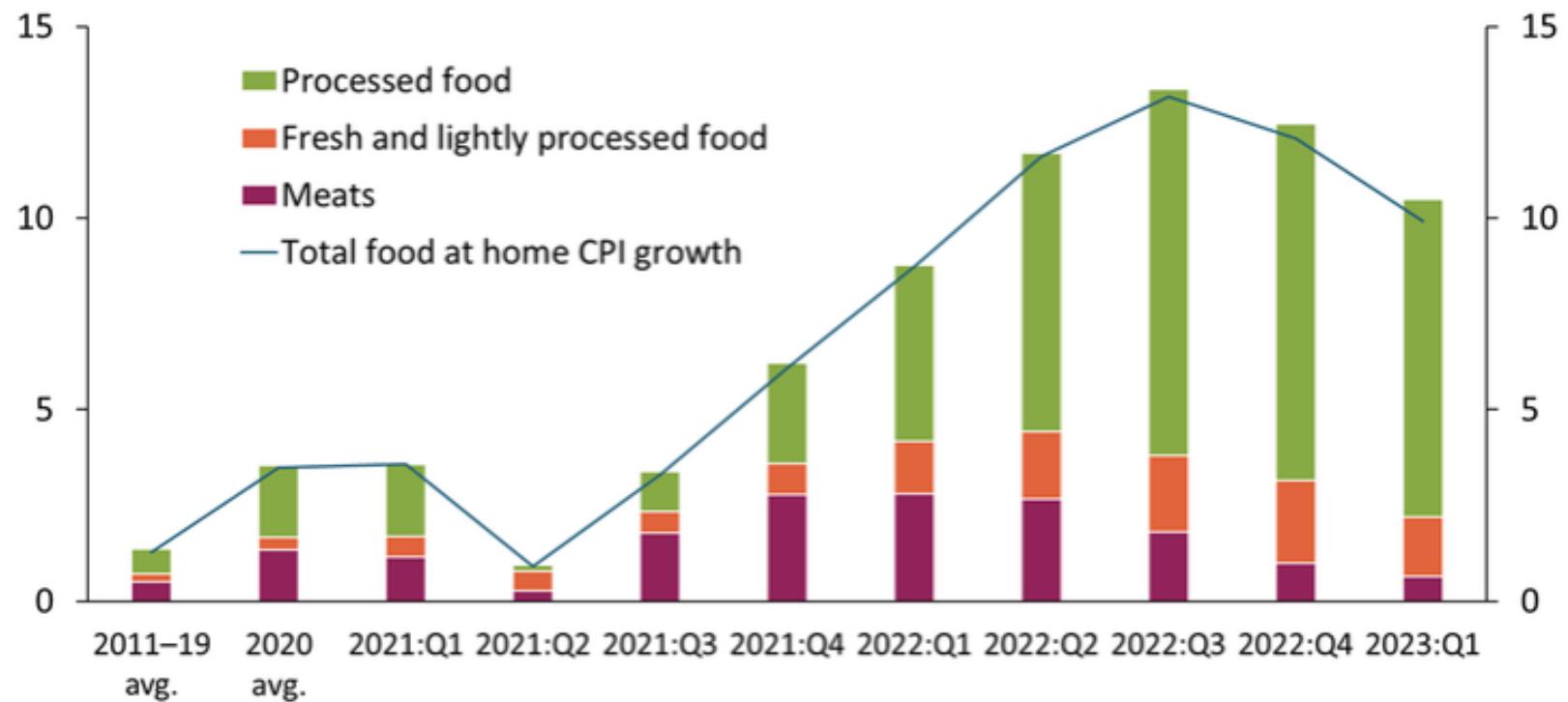




Source: USDA Economic Research Service

Chart 5: Growth in the price of processed food has driven inflation for food at home since 2022

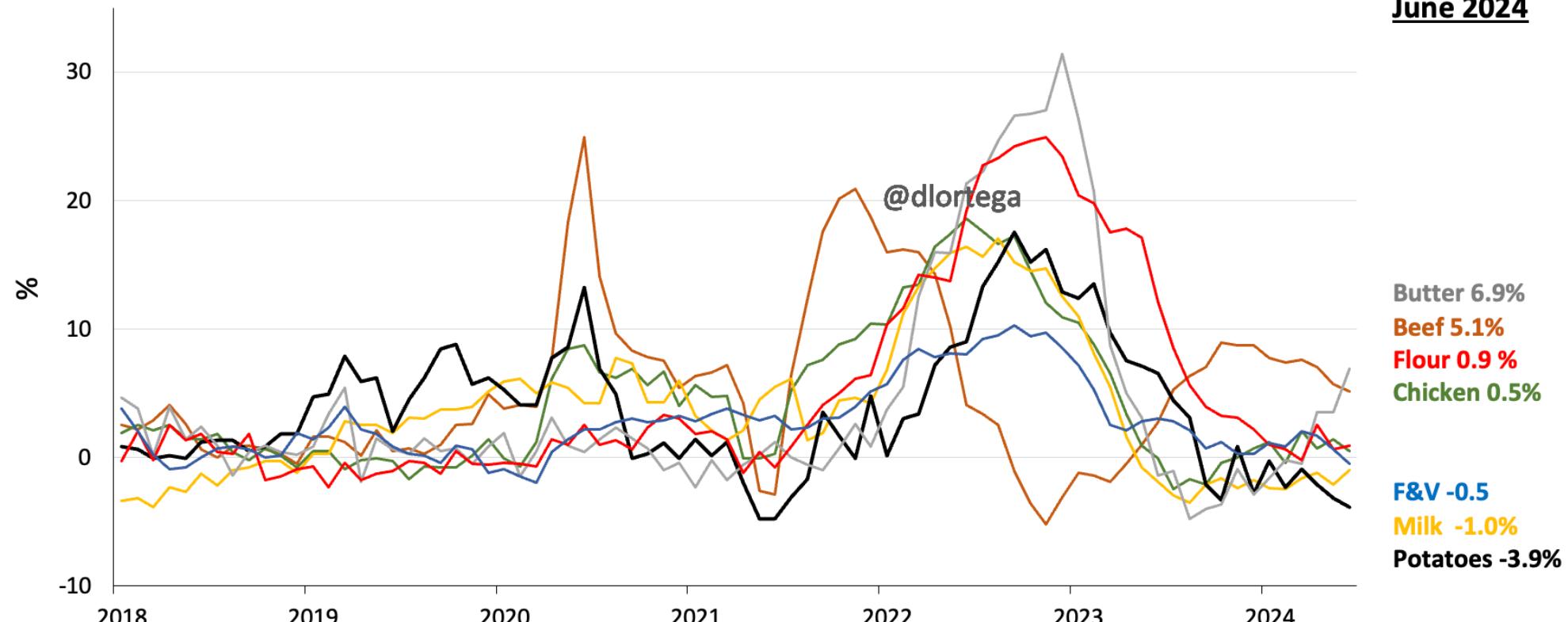
Year-over-year percent change, seasonally adjusted



Source: Federal Reserve Bank of Kansas City

U.S. Consumer Food Prices (% change from a year ago)

June 2024



Data Source: Bureau of Labor Statistics
Created by David L. Ortega

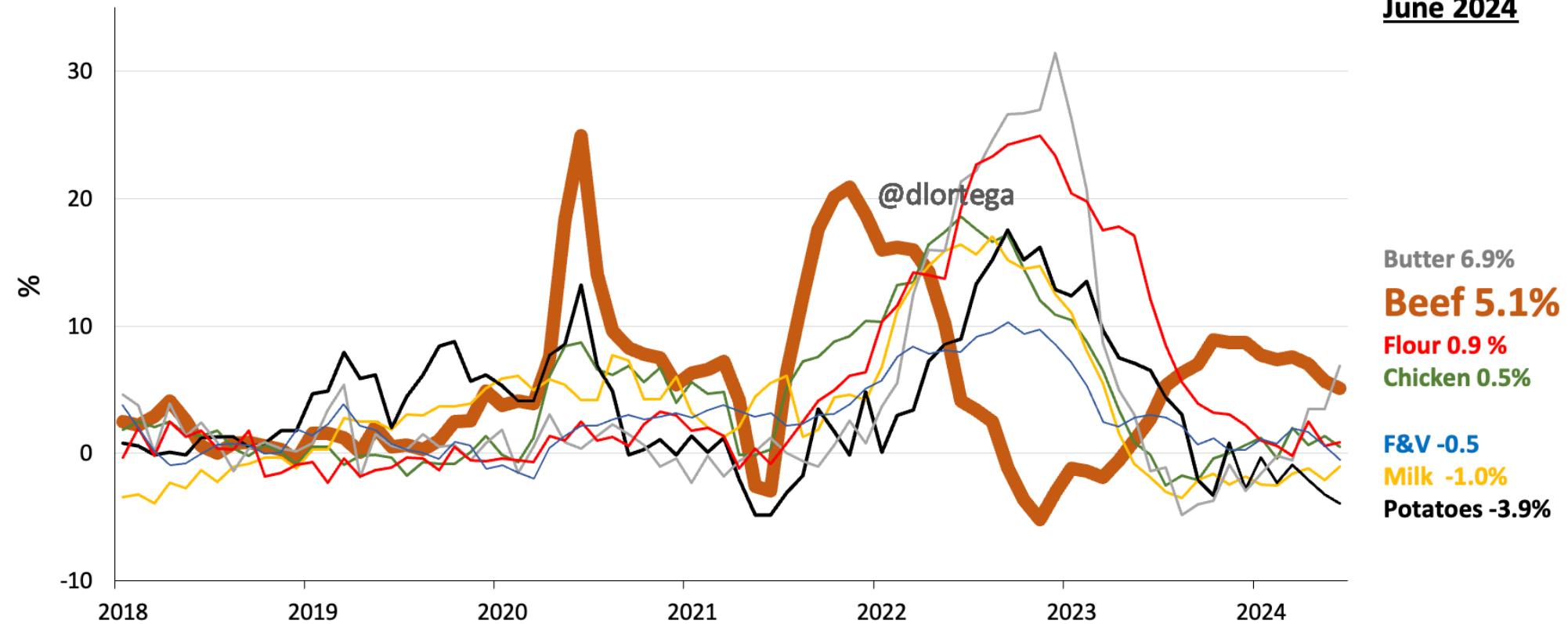
COVID-19

- Changes in consumer behavior
- Labor shortages and bottlenecks
- Transportation issues
- Supply chain disruptions
- Increased costs



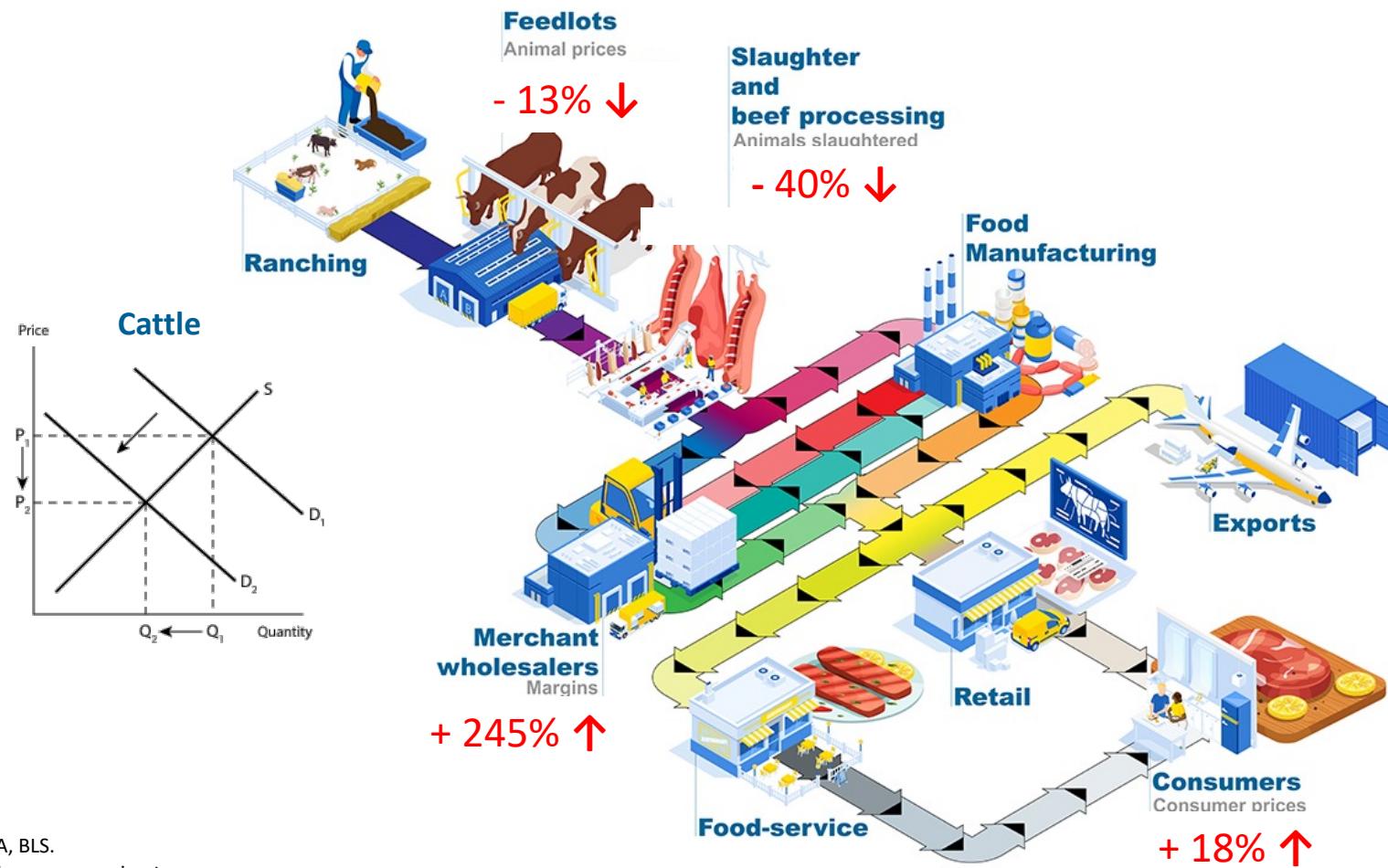
U.S. Consumer Beef Prices (% change from a year ago)

June 2024



Data Source: Bureau of Labor Statistics
Created by David L. Ortega

May 2020 vs 2019

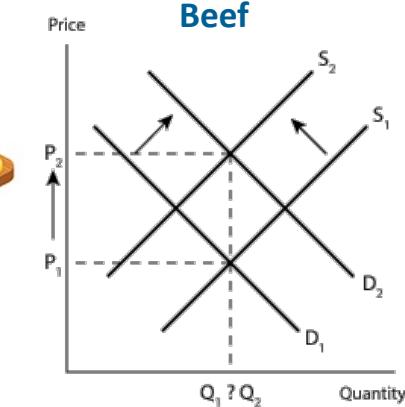


Source: USDA, BLS.

Note: Statistics are approximate.

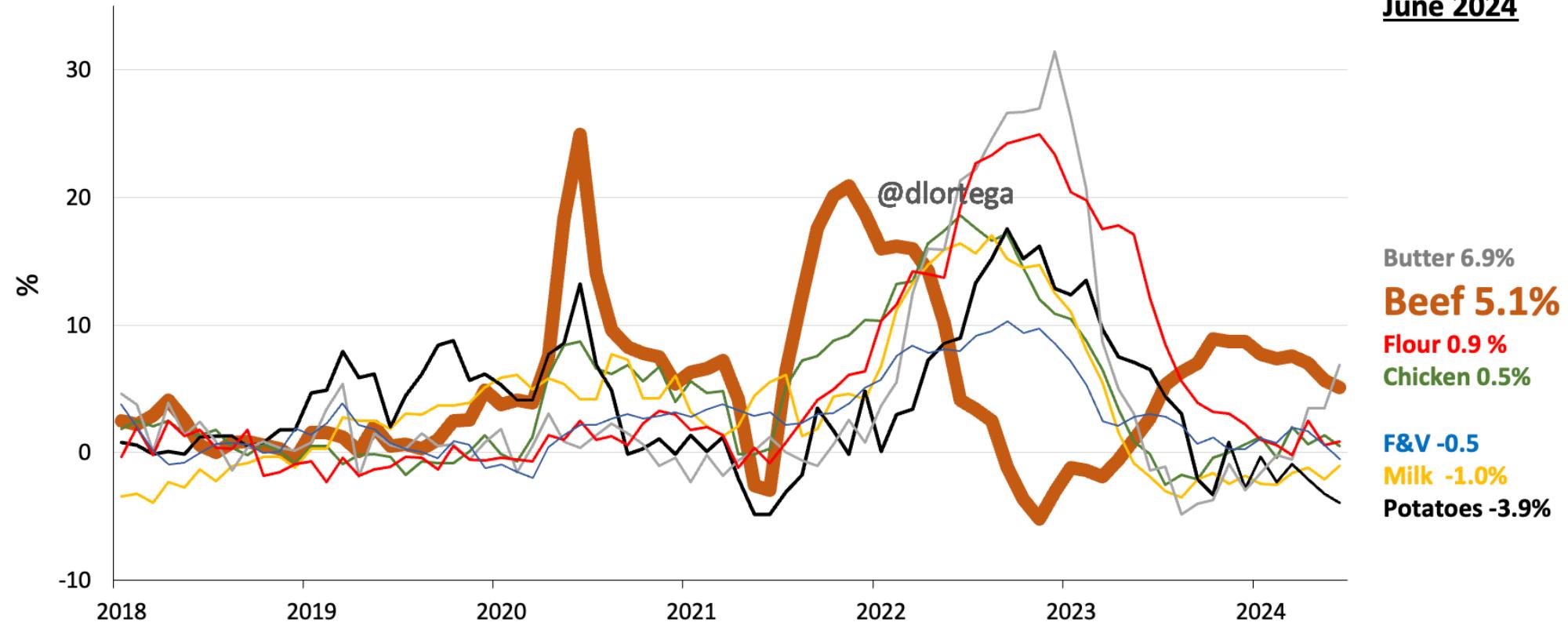
Graphic adapted from Statistics Canada

Created by David L. Ortega



U.S. Consumer Beef Prices (% change from a year ago)

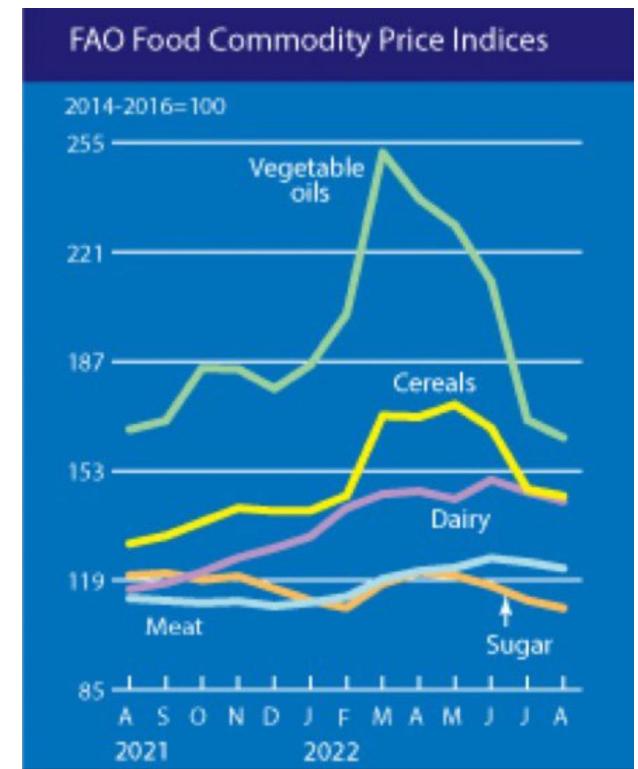
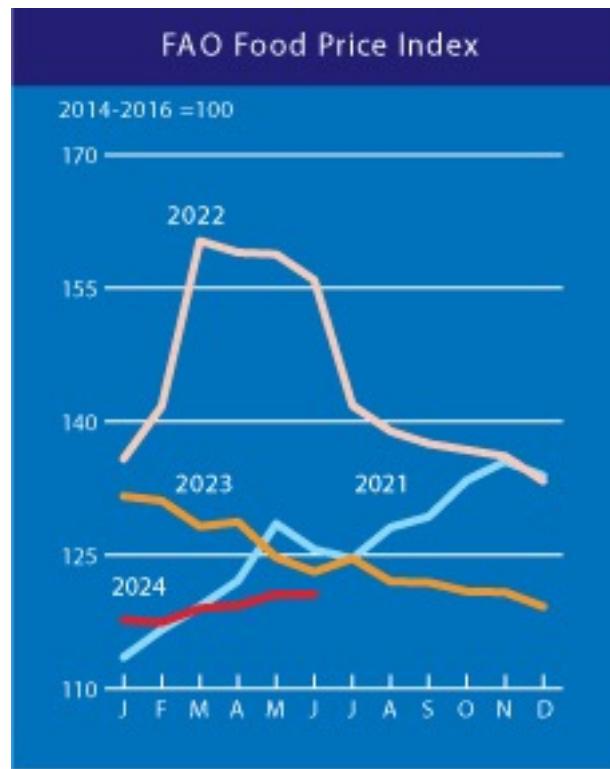
June 2024



Data Source: Bureau of Labor Statistics
Created by David L. Ortega

Russia-Ukraine War

- Oil/gas prices
 - Impacts on transportation, fertilizer
- Decreased supply of grain and edible oils
- Protectionist measures
 - Fertilizer (CN), Palm Oil (ID)
- World Food Crisis
- Uncertainty

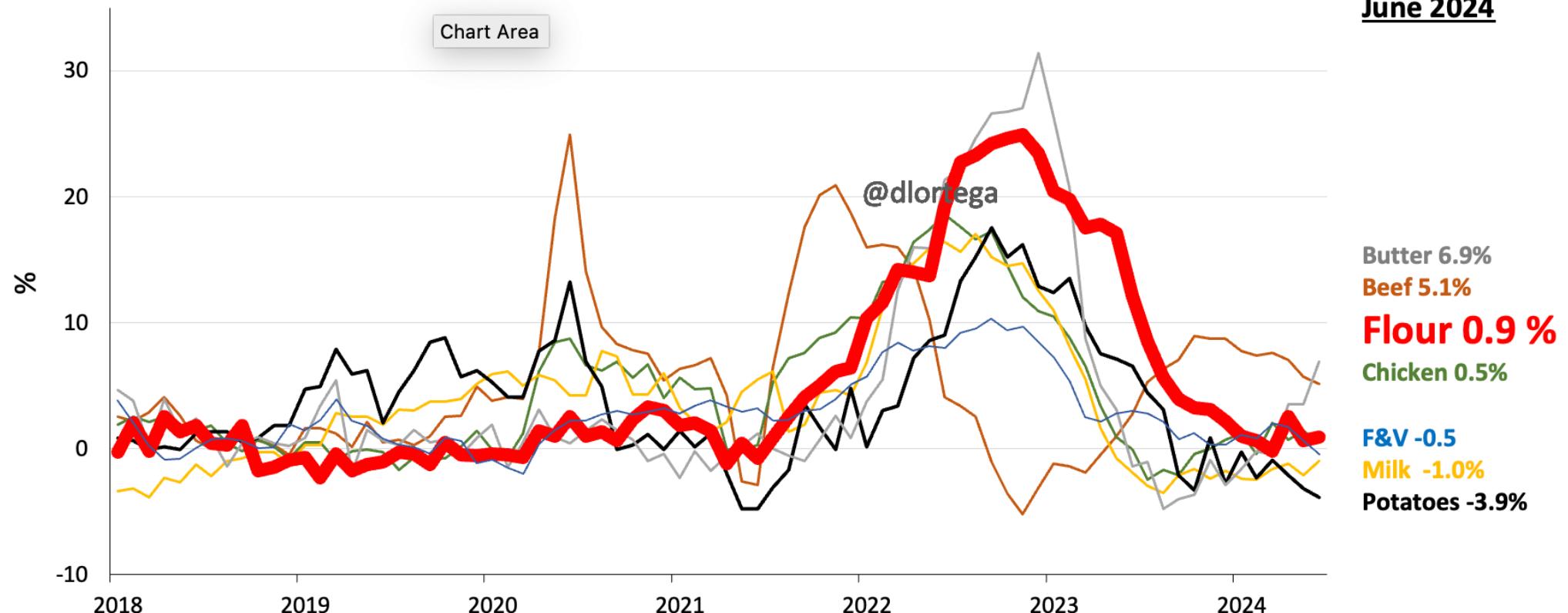


Source: United Nations FAO

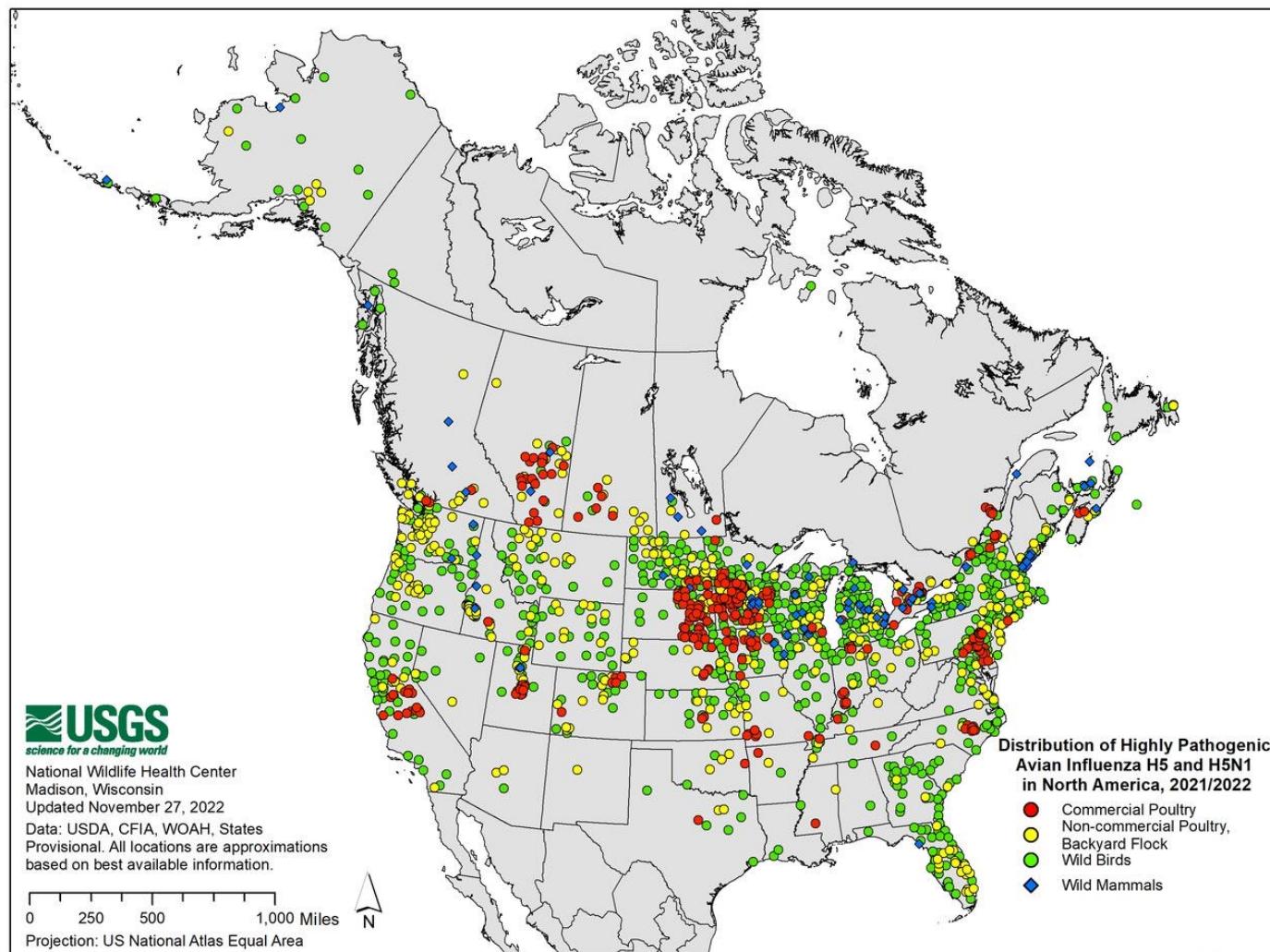
U.S. Consumer Flour Prices

(% change from a year ago)

June 2024



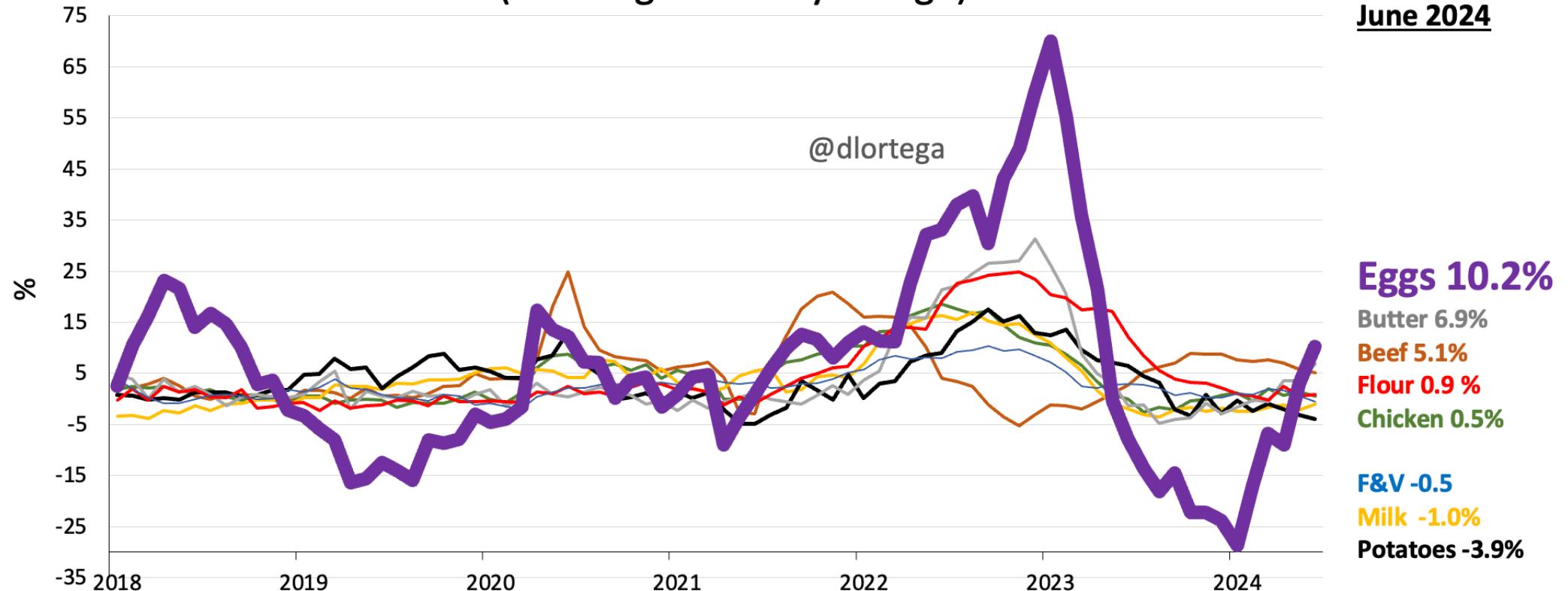
Data Source: Bureau of Labor Statistics
Created by David L. Ortega



U.S. Consumer Egg Prices

(% change from a year ago)

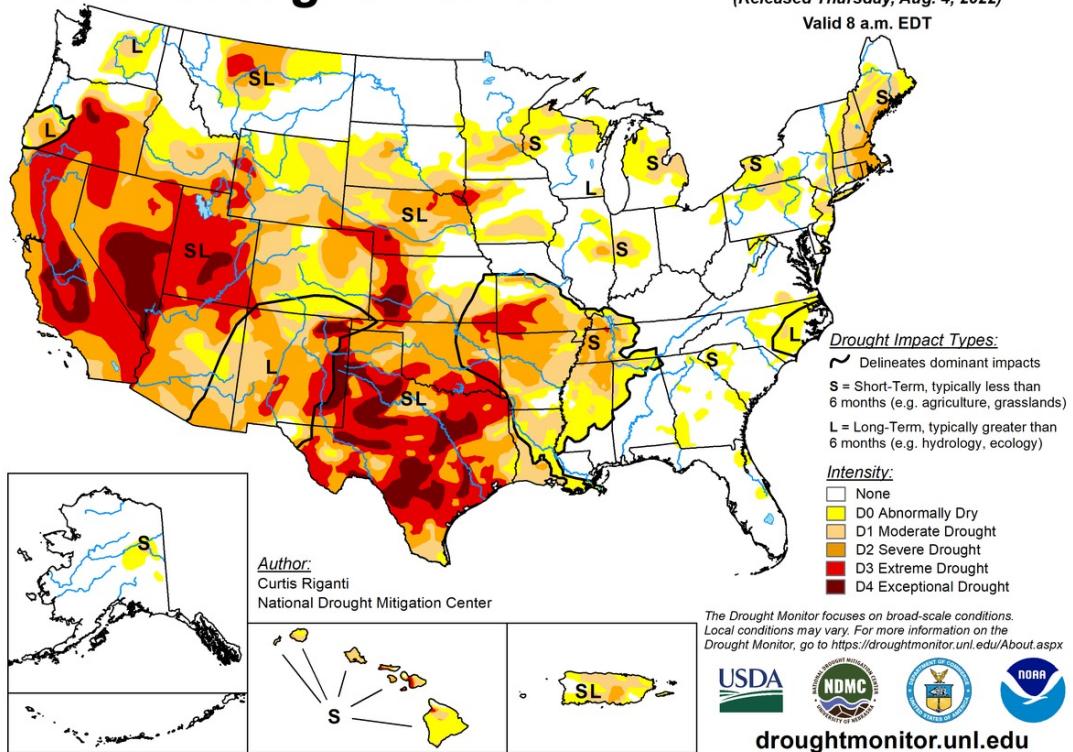
June 2024



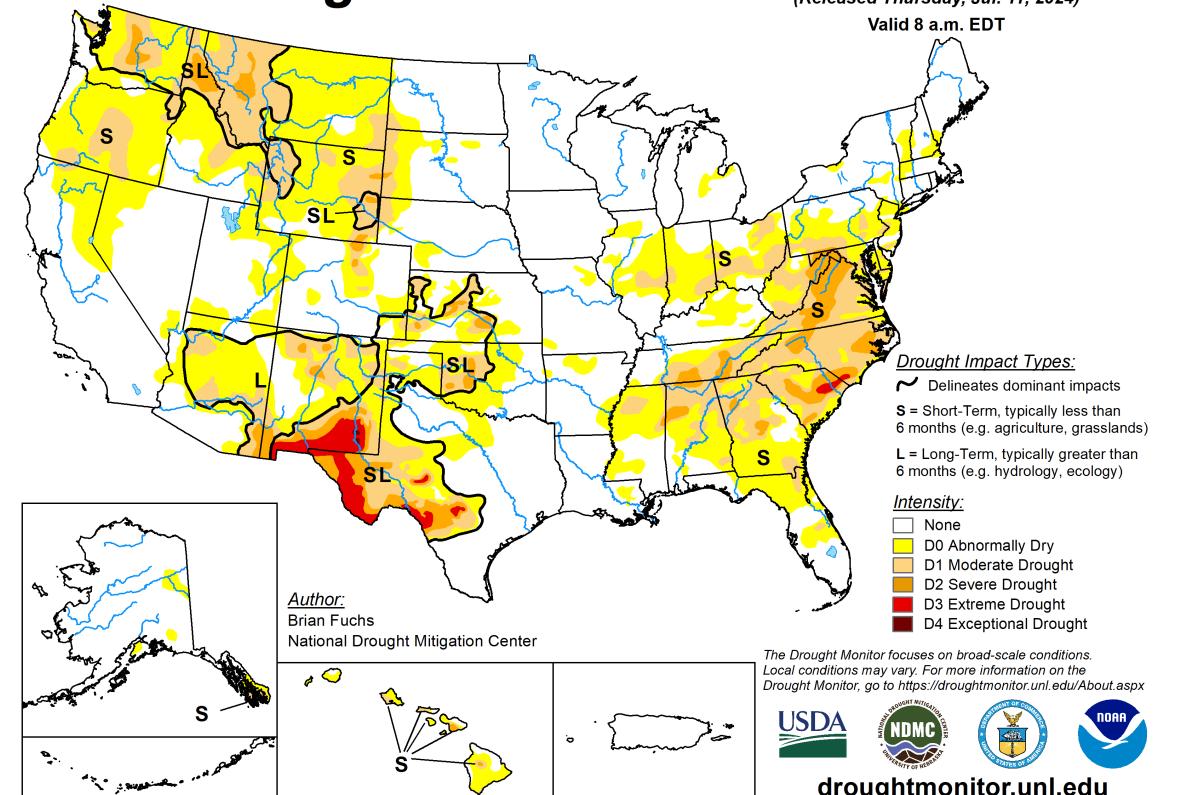
Data Source: Bureau of Labor Statistics
Created by David L. Ortega

Drought

U.S. Drought Monitor

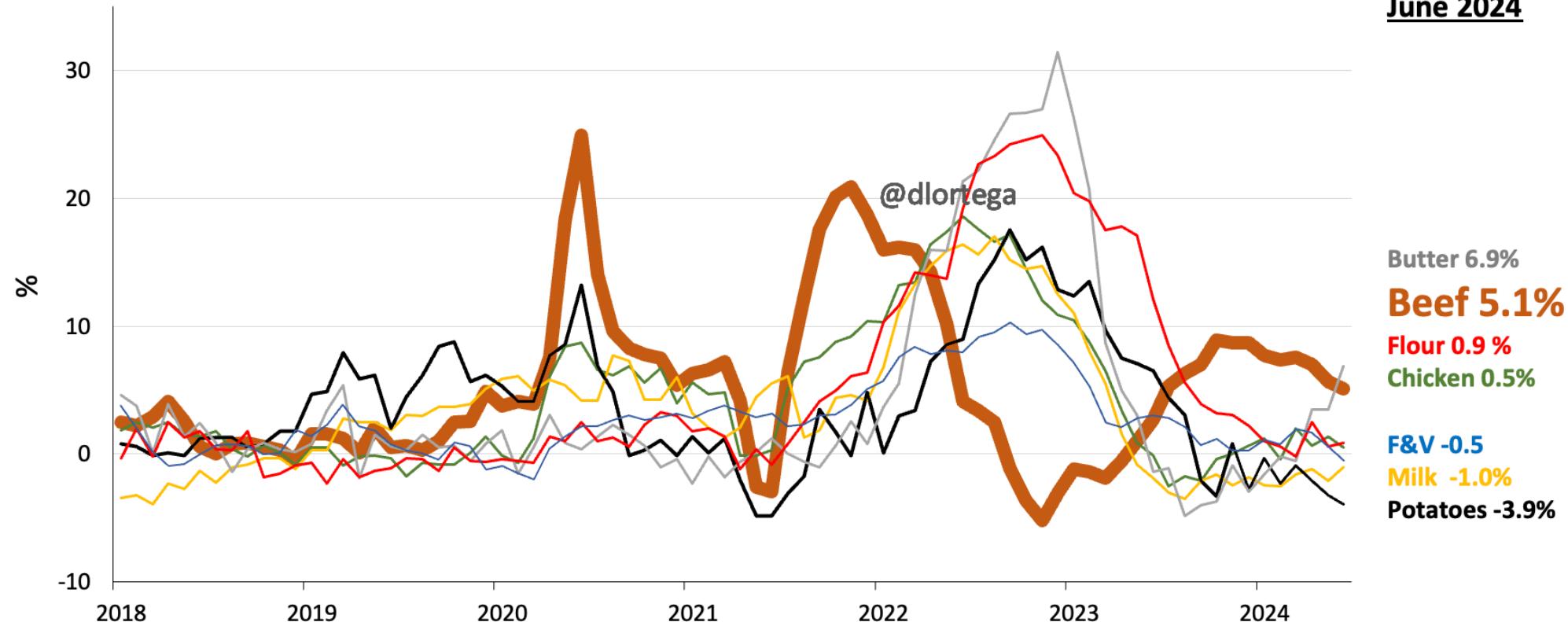


U.S. Drought Monitor



U.S. Consumer Beef Prices (% change from a year ago)

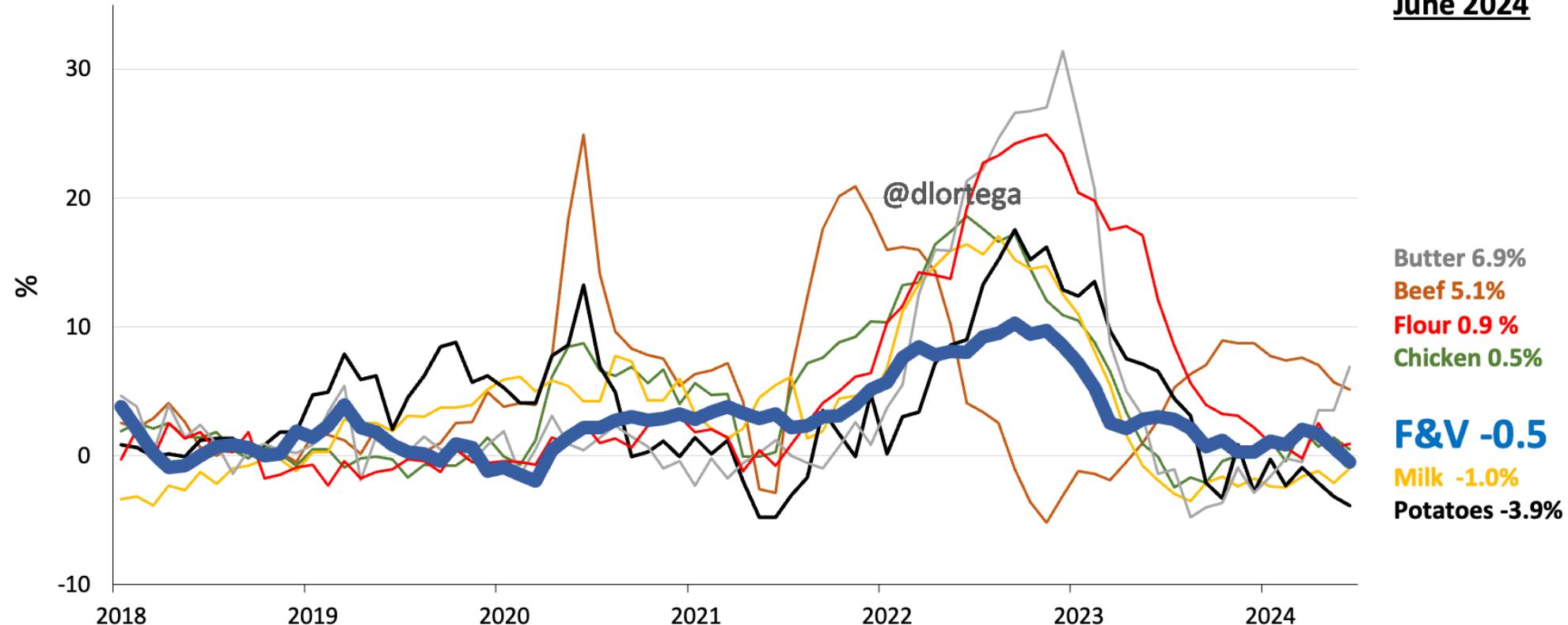
June 2024



Data Source: Bureau of Labor Statistics
Created by David L. Ortega

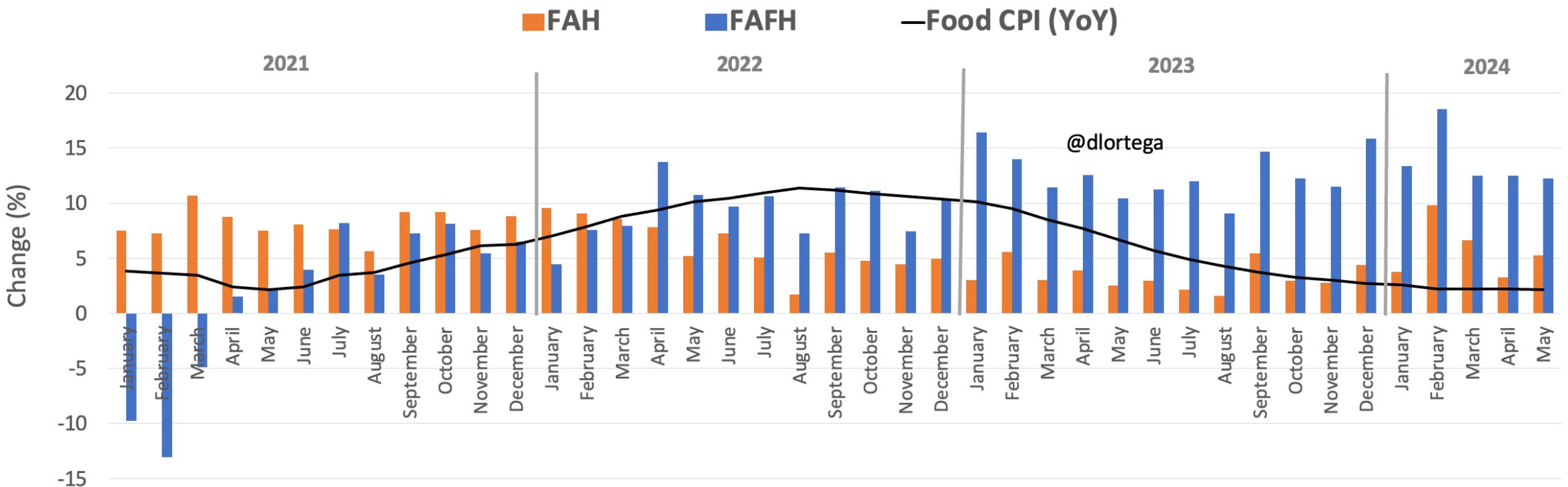
U.S. Consumer Fruit and Vegetable Prices (% change from a year ago)

June 2024

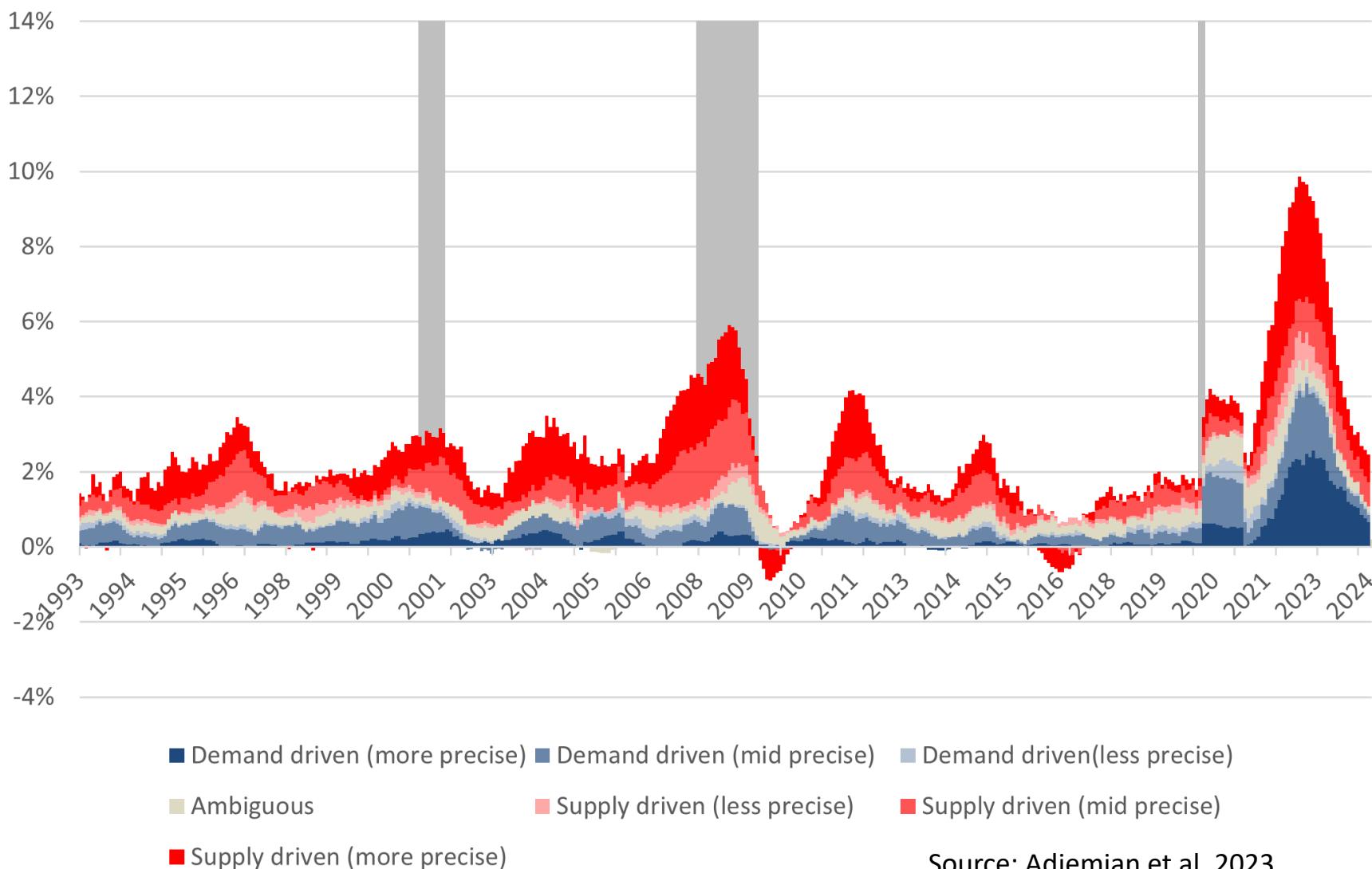


Data Source: Bureau of Labor Statistics
Created by David L. Ortega

Inflation Adjusted Consumer Food Spending in 2021-24 relative to 2019

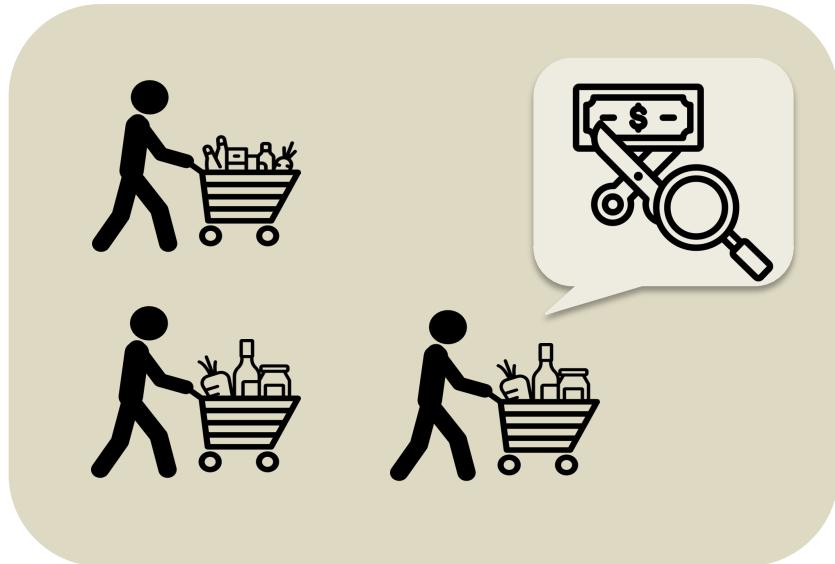


Note: Food spending is inflation adjusted using 1988 as baseline. Food CPI is y/y.
Source: USDA, ERS Food Expenditure Series. Bureau of Labor Statistics.



Source: Adjemian et al. 2023

Changes in consumer behavior

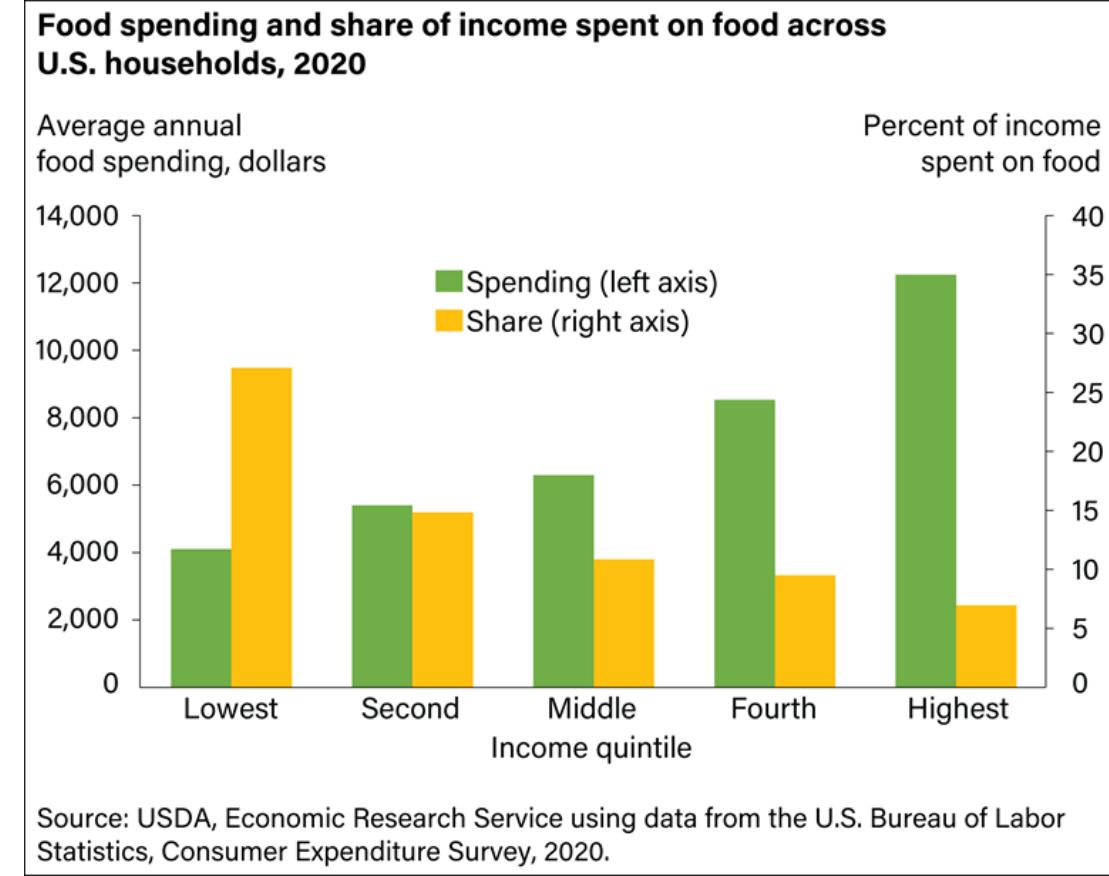
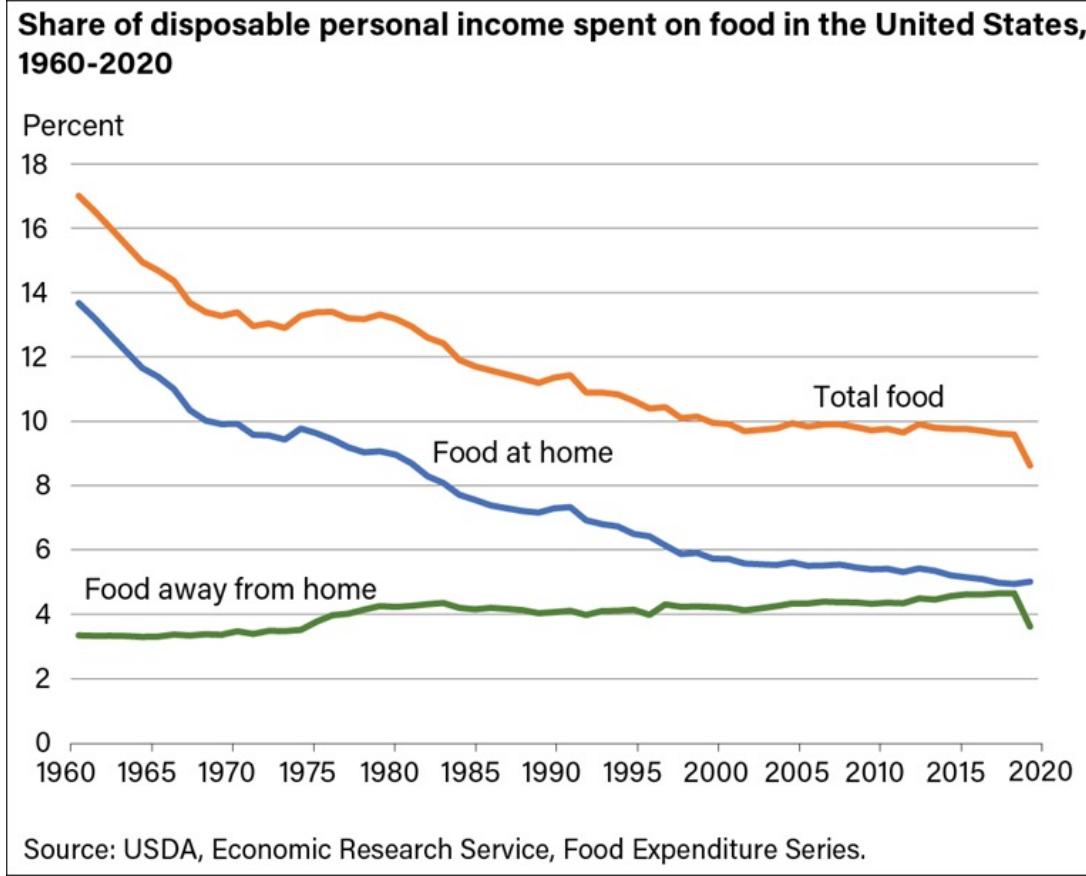


- More frequent grocery shopping trips
 - Price comparison, bargain hunting
- Buying fewer items

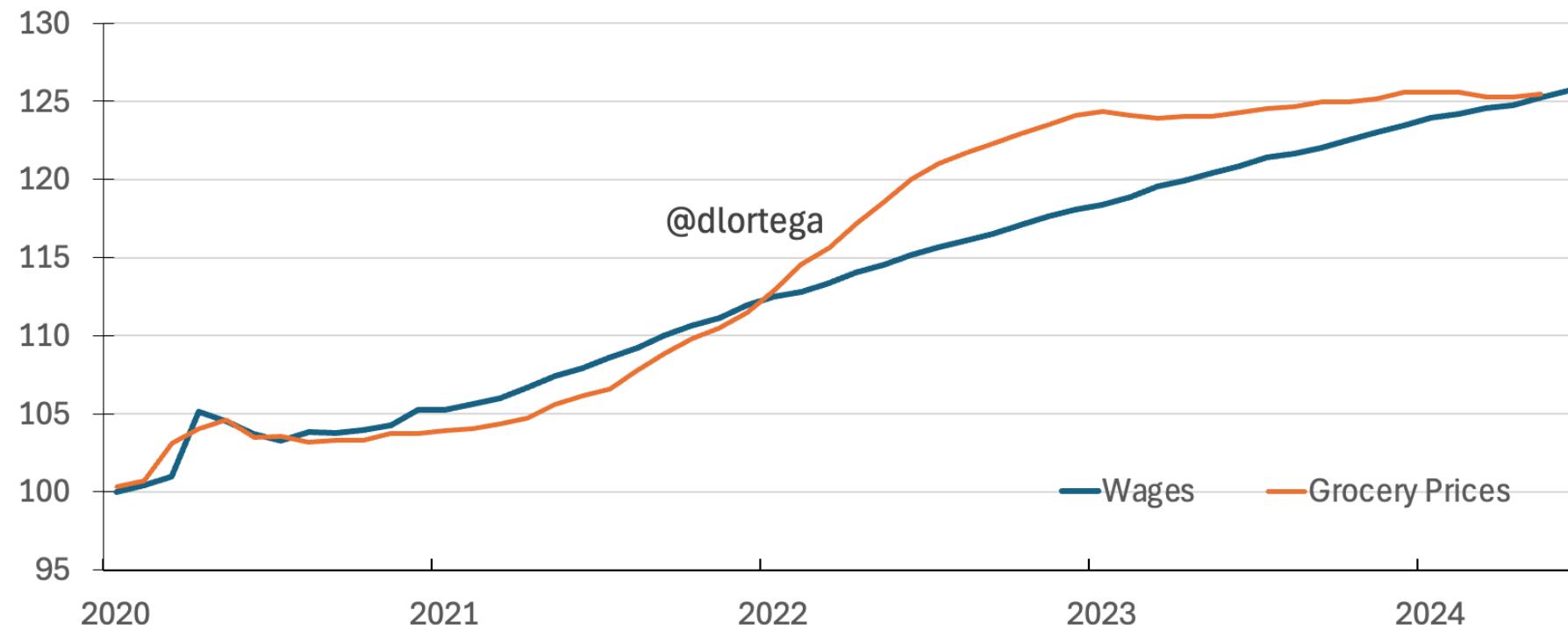


- Private labels and promotions on the rise
- Cutting back on splurges and premium purchases → Cheapflation!

Food is a necessity



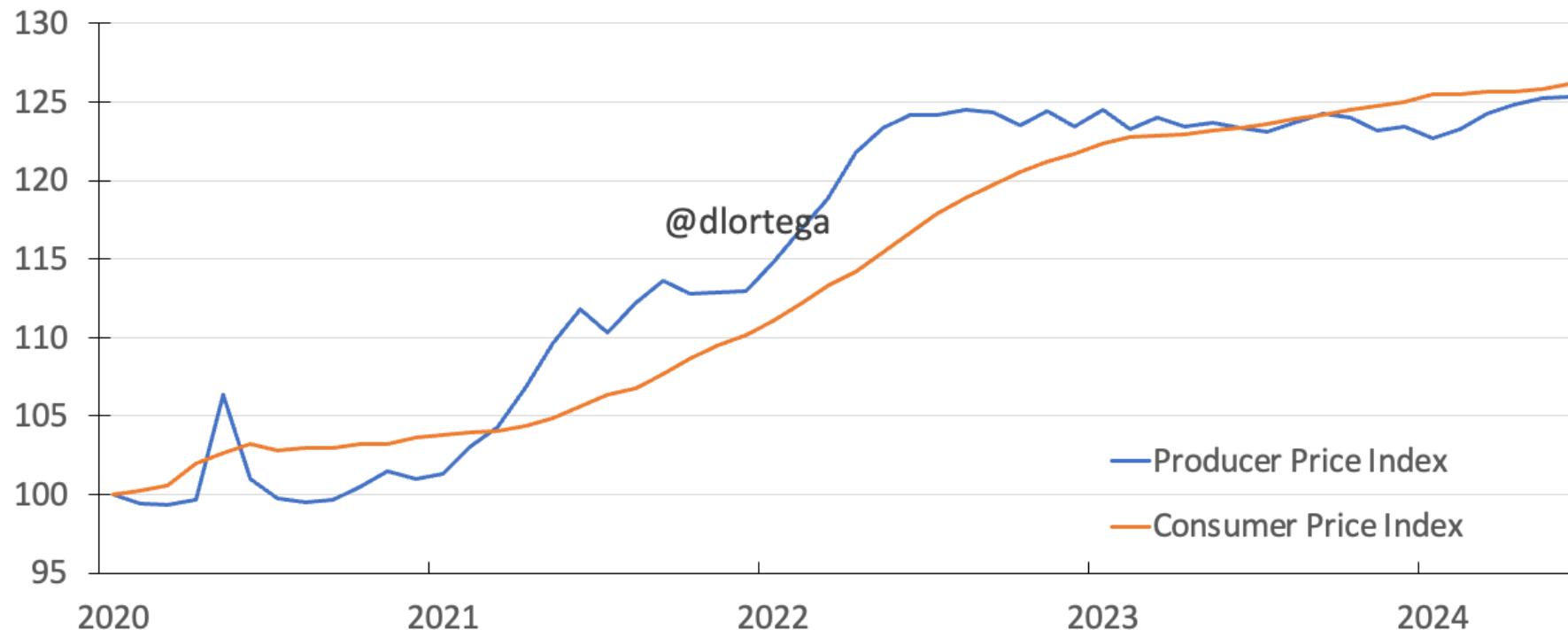
Grocery Prices vs Wages



Source: Bureau of Labor Statistics

Notes: Jan 2020=100. CPI for Food at Home; Earnings of Production and Non-supervisory Employees

Food Inflation: Producer and Consumer Prices

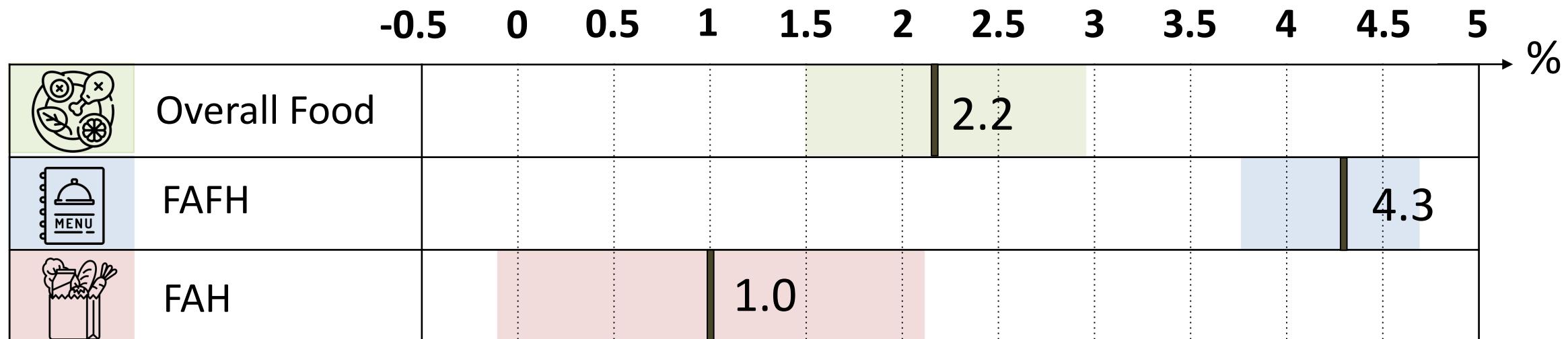


Source: Bureau of Labor Statistics

Notes: Jan 2020=100. PPI Processed food and feed; CPI Overall food

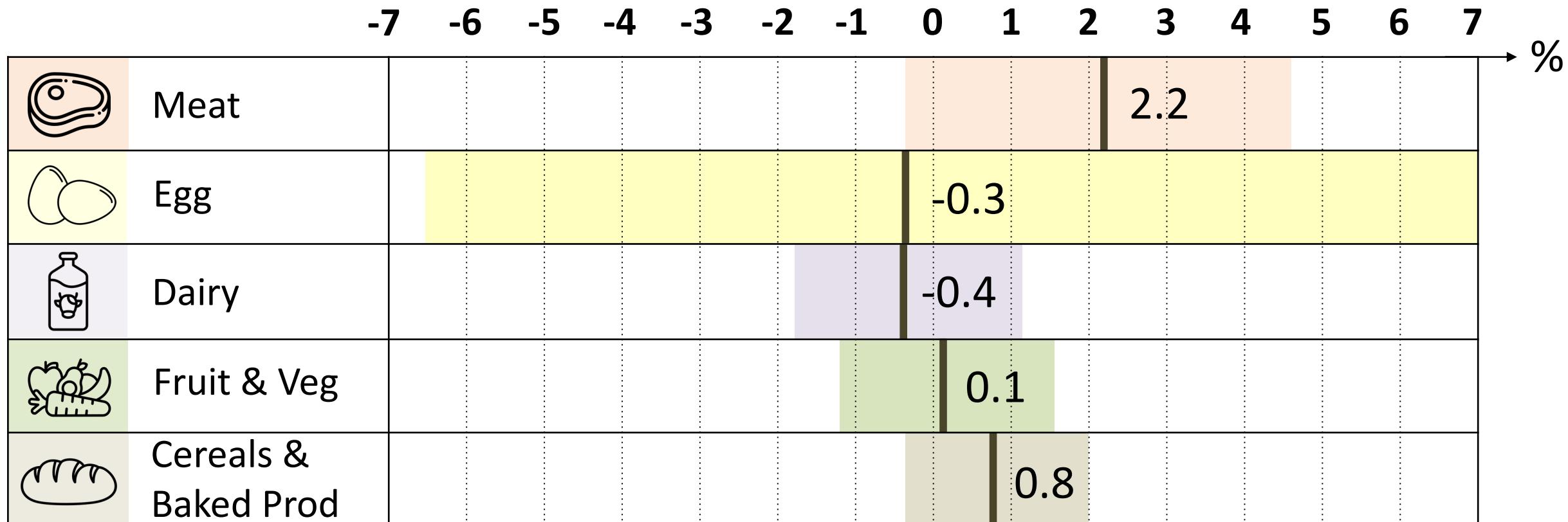
USDA Food Price Outlook Forecast (as of July 25)

2024 range & mid point



Source: USDA Economic Research Service

2024 range & mid point



Source: USDA Economic Research Service

Main takeaways

- The reason food price inflation has been persistent over the past 4 years is because there has been a convergence of factors that have affected both the supply and the demand for food
- Identifying and understanding these critical factors is essential for anticipating and mitigating future disruptions
- Data-driven story telling can increase understanding, build trust, and lead to more informed decisions