

Shocks, Supply Chain Disruptions, and Food Prices

David L. Ortega

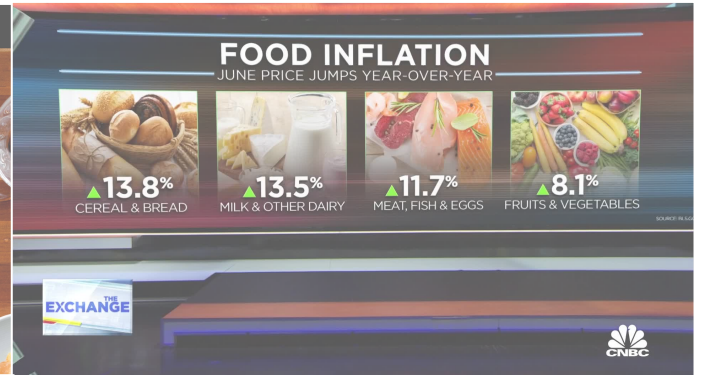
Professor

Noel W. Stuckman Chair in Food Economics & Policy

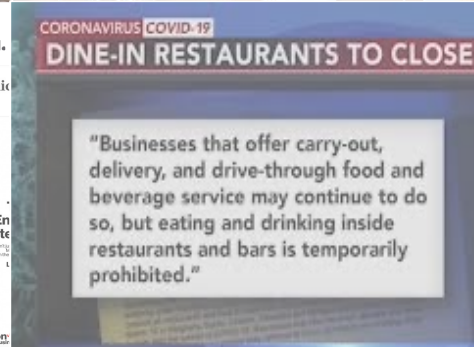


MICHIGAN STATE
UNIVERSITY

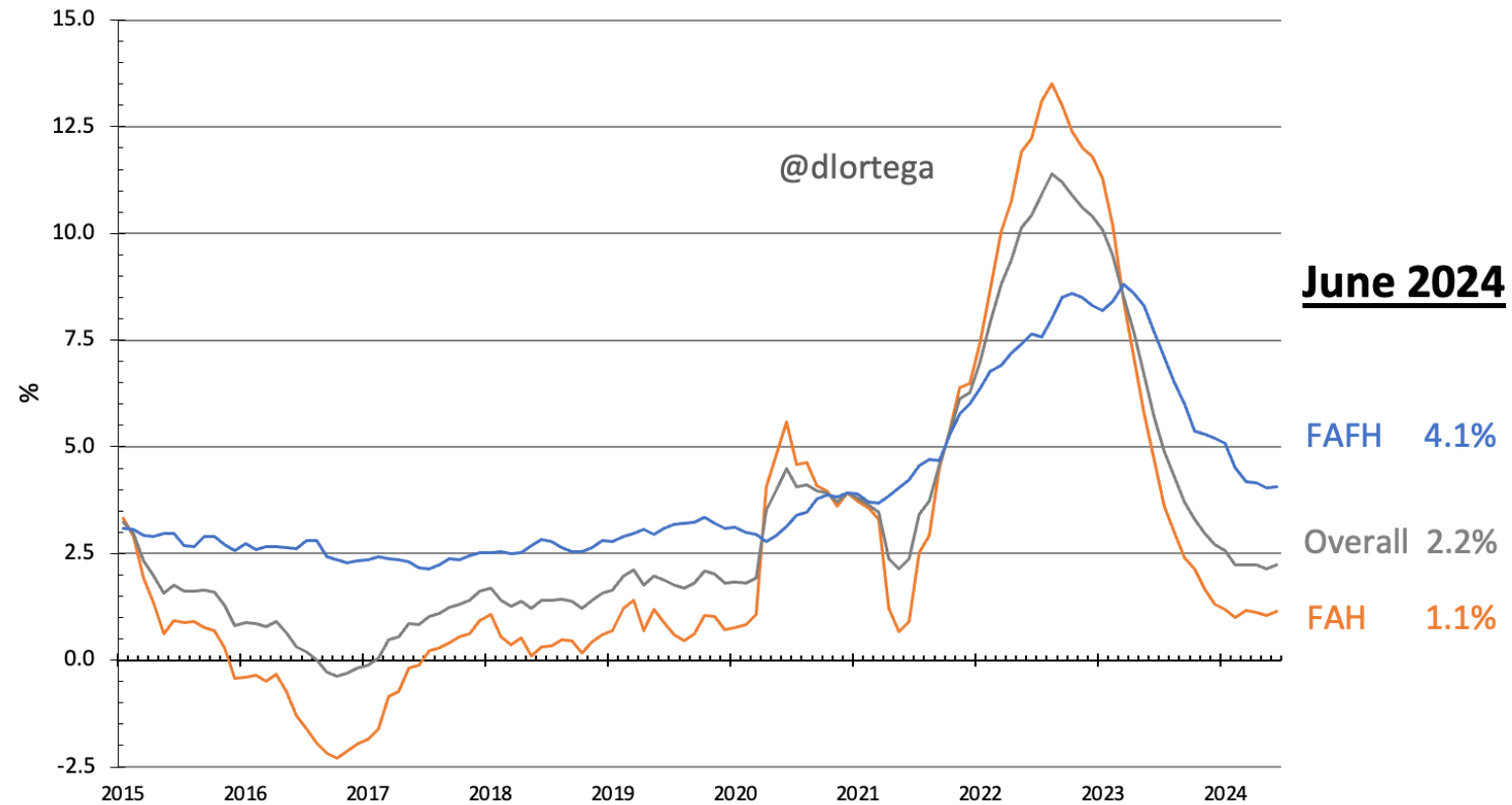
July 31st, 2024



Extensive interest
and news coverage

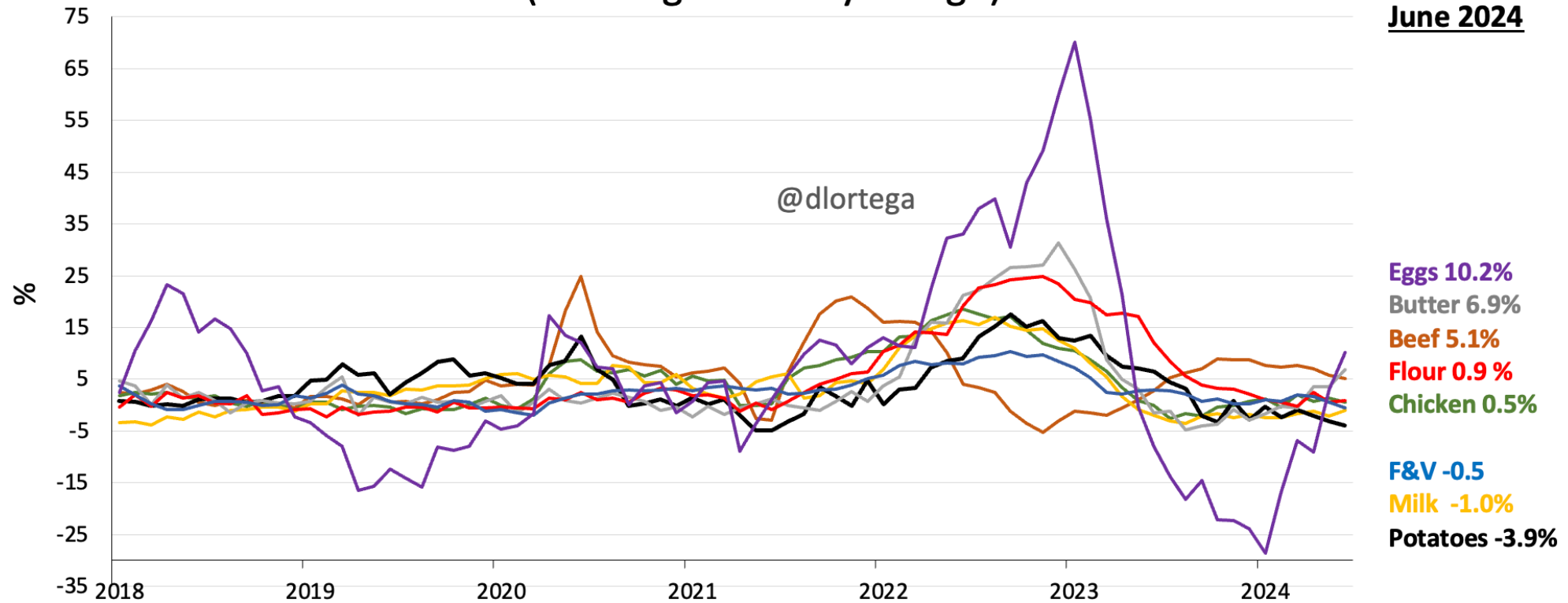


U.S. Food Price Increases: Groceries vs Restaurants (% change from one year ago)



Source: Bureau of Labor Statistics

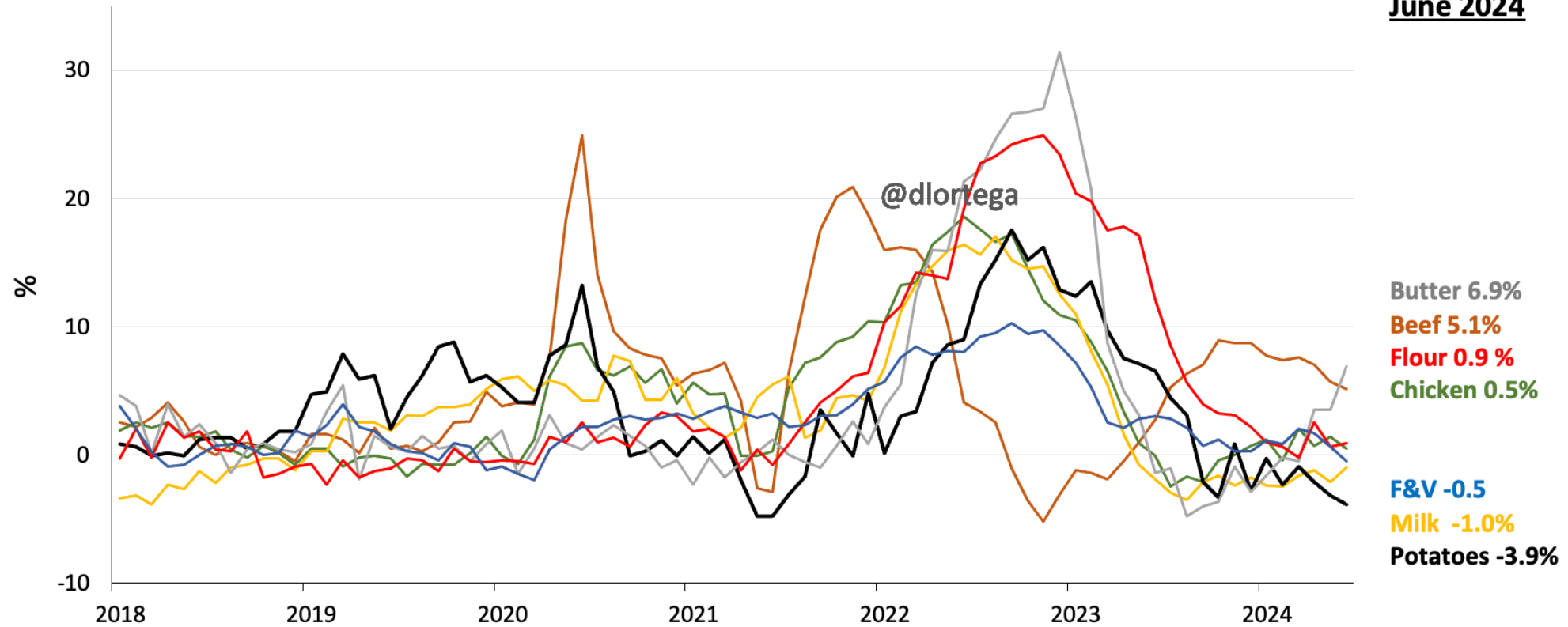
U.S. Consumer Food Prices (% change from a year ago)



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

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

June 2024



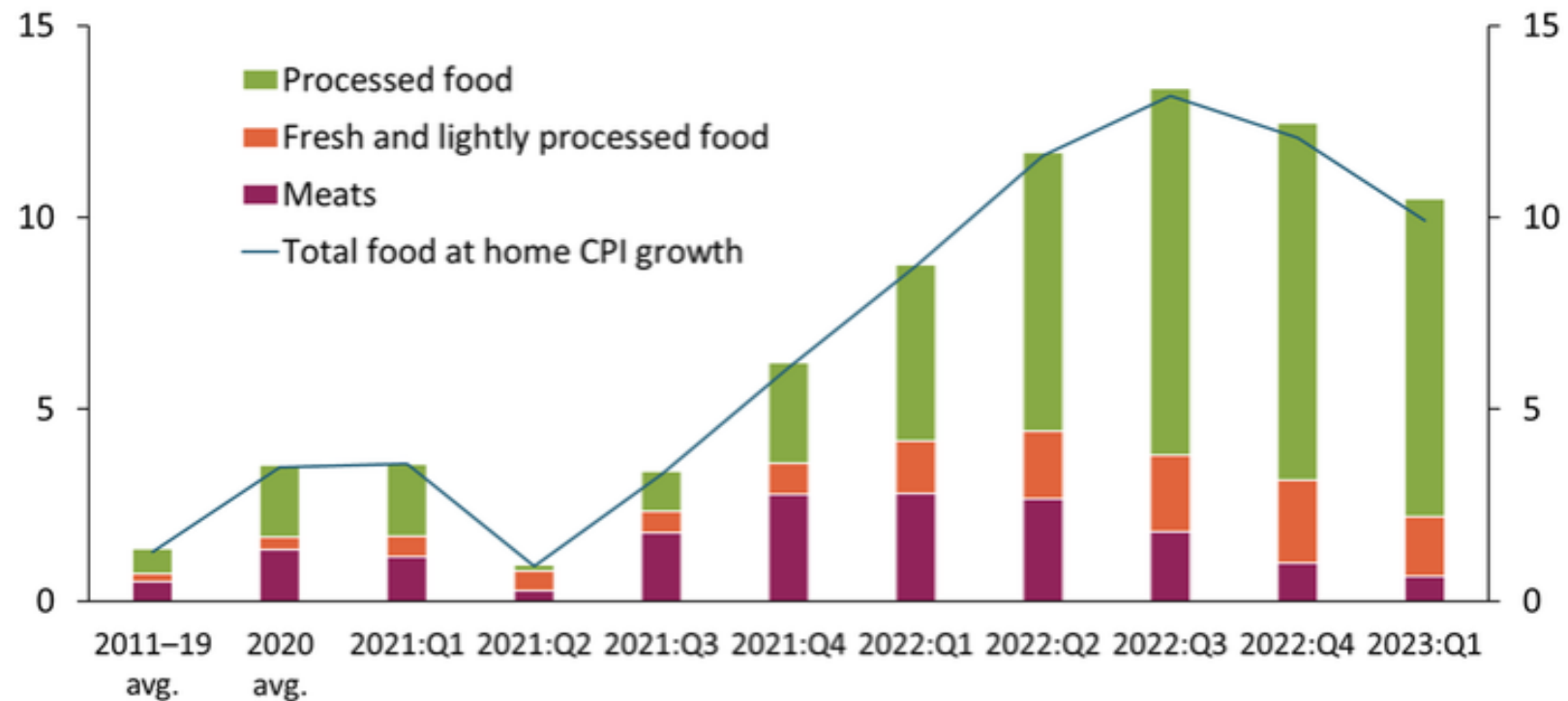
Data Source: Bureau of Labor Statistics
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Source: USDA Economic Research Service

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

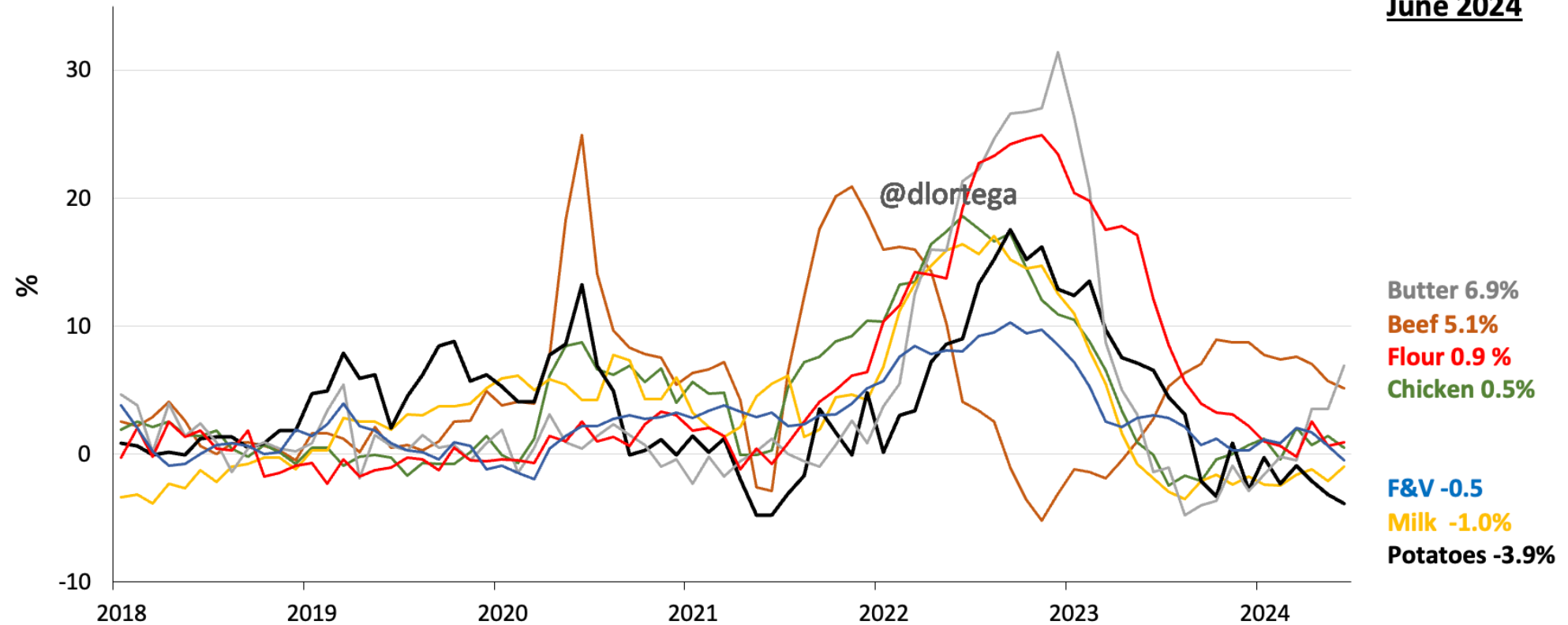
Year-over-year percent change, seasonally adjusted



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

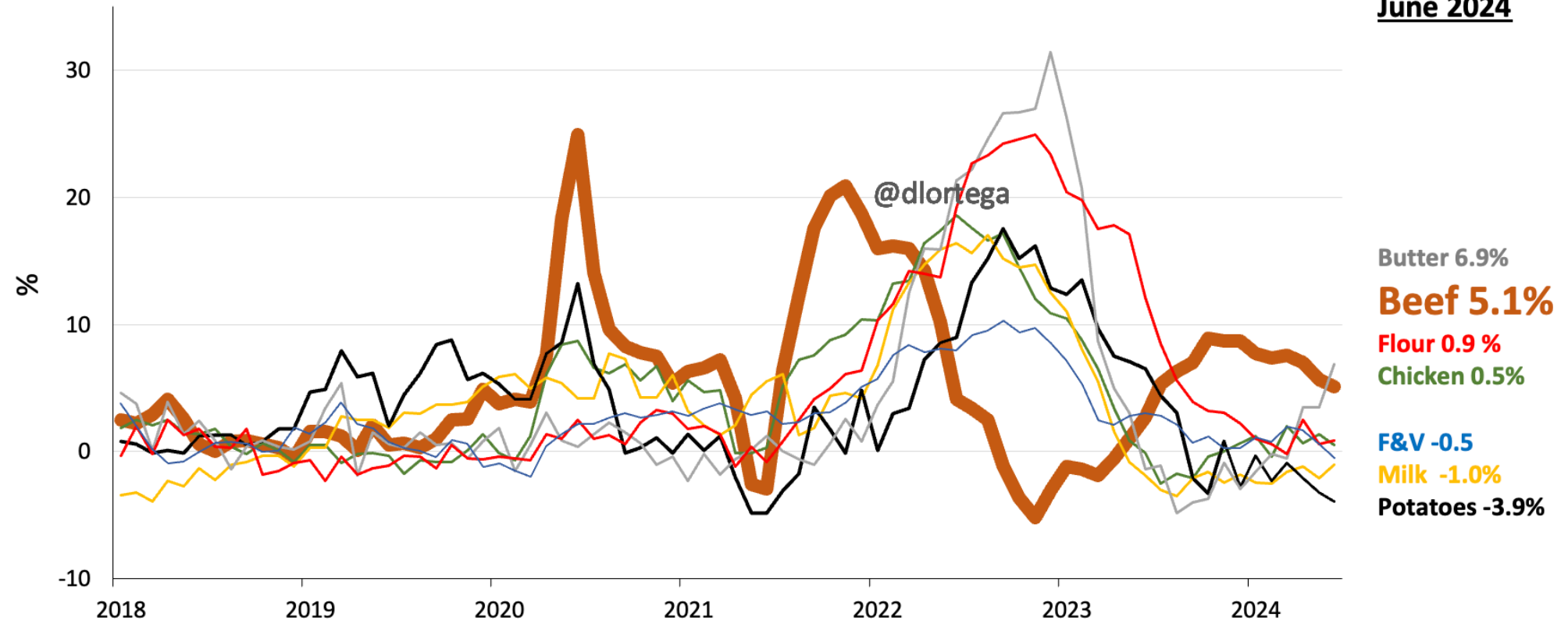
COVID-19

- 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.

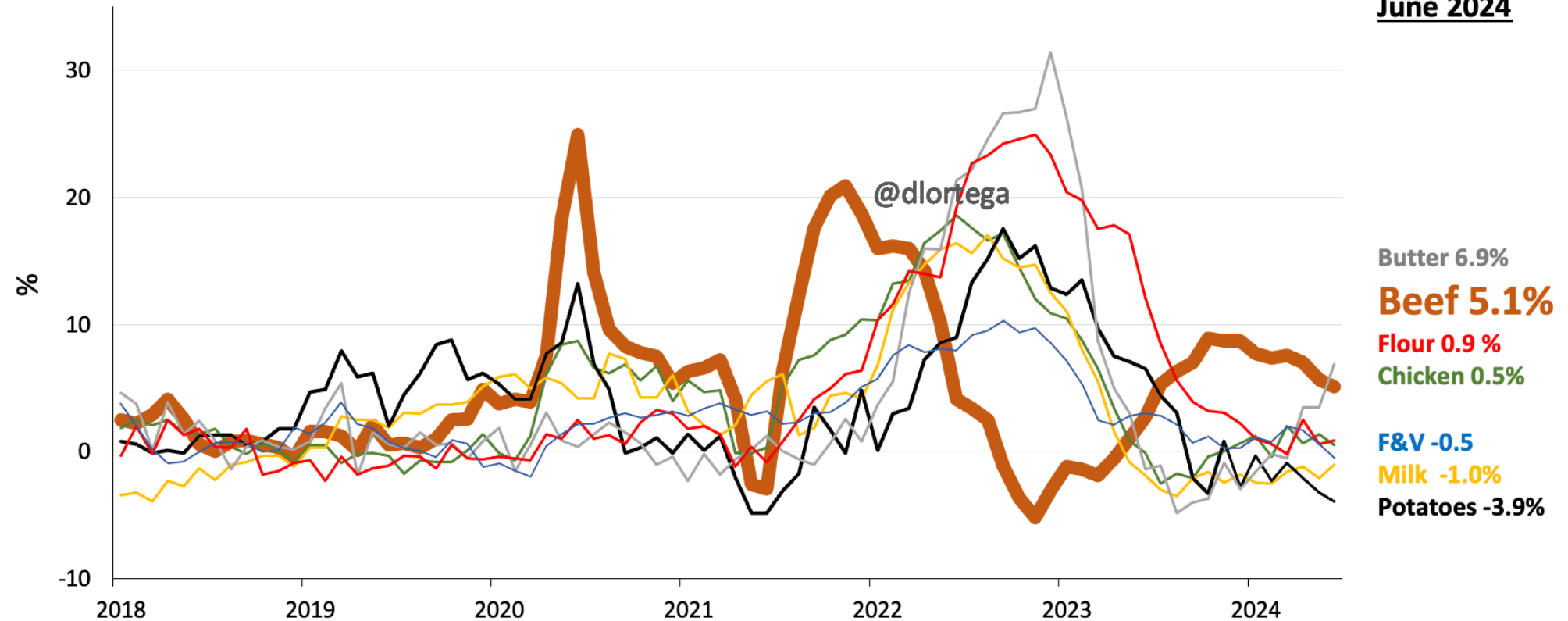
Note: Statistics are approximate.

Graphic adapted from Statistics Canada

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

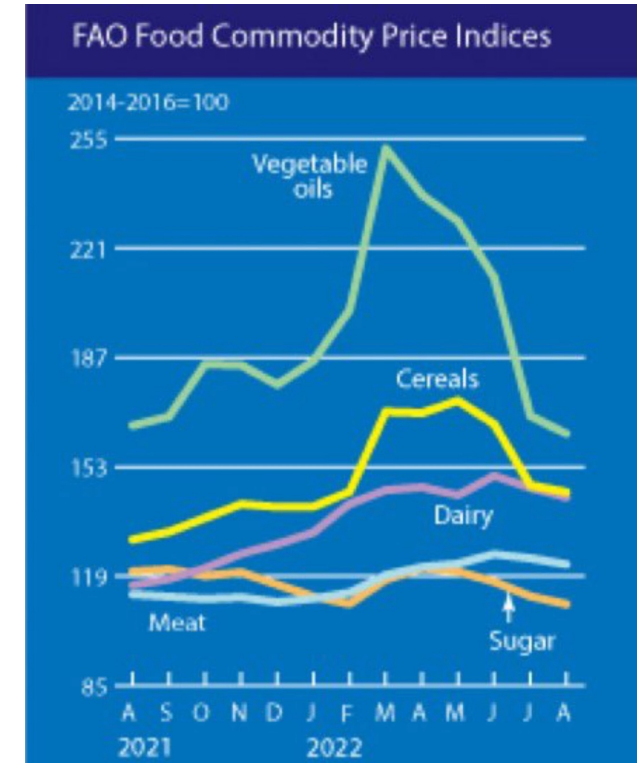
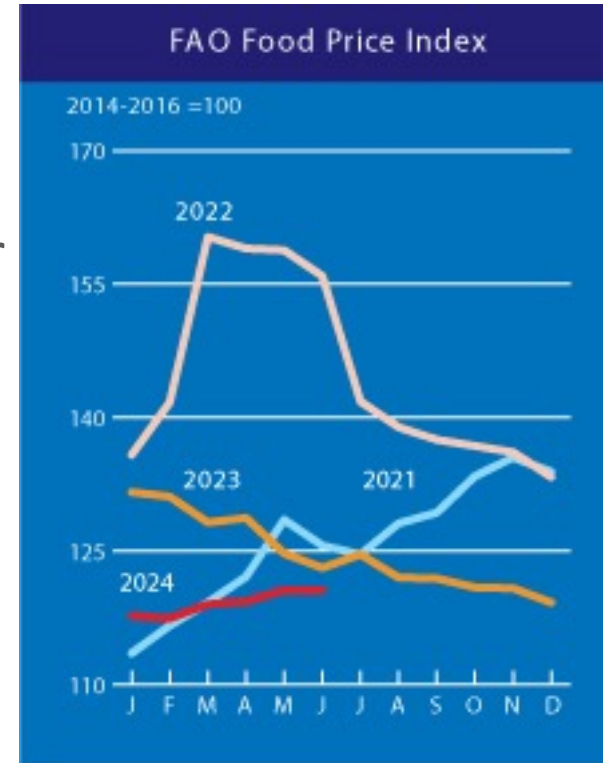
June 2024



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

Russia-Ukraine War

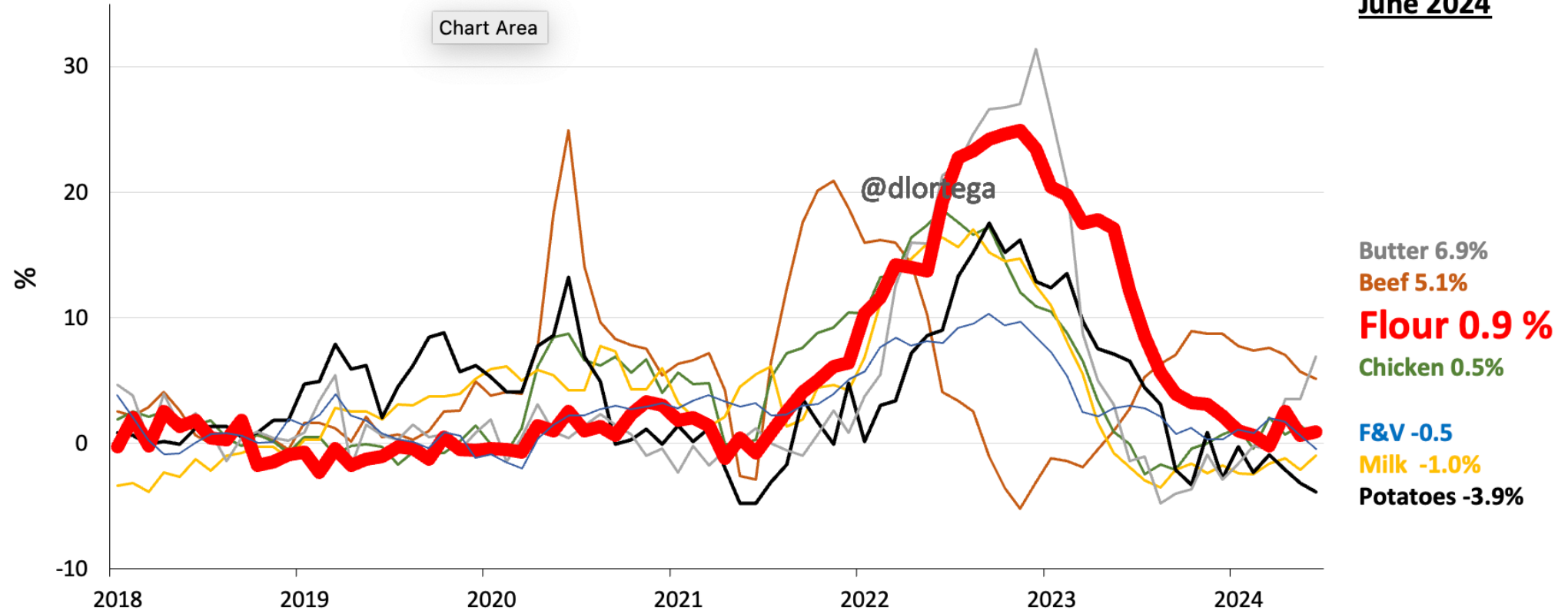
- Oil/gas prices
 - Impacts on transportation, fertilizer
- Decreased supply of grain and edible oils
- Protectionist measures
 - Fertilizer (CN), Palm Oil (ID)
- World Food Crisis
- Uncertainty



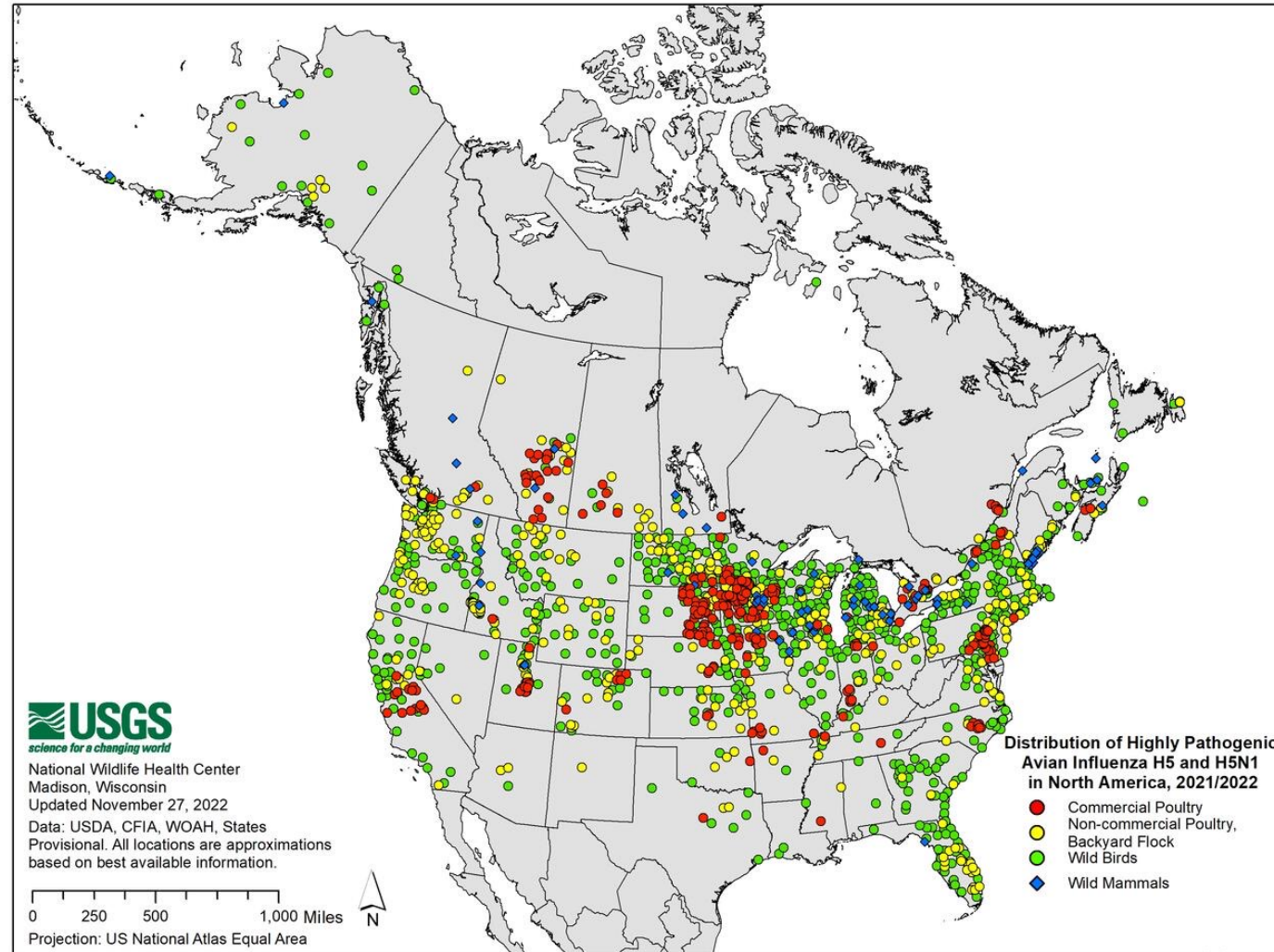
Source: United Nations FAO

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

June 2024

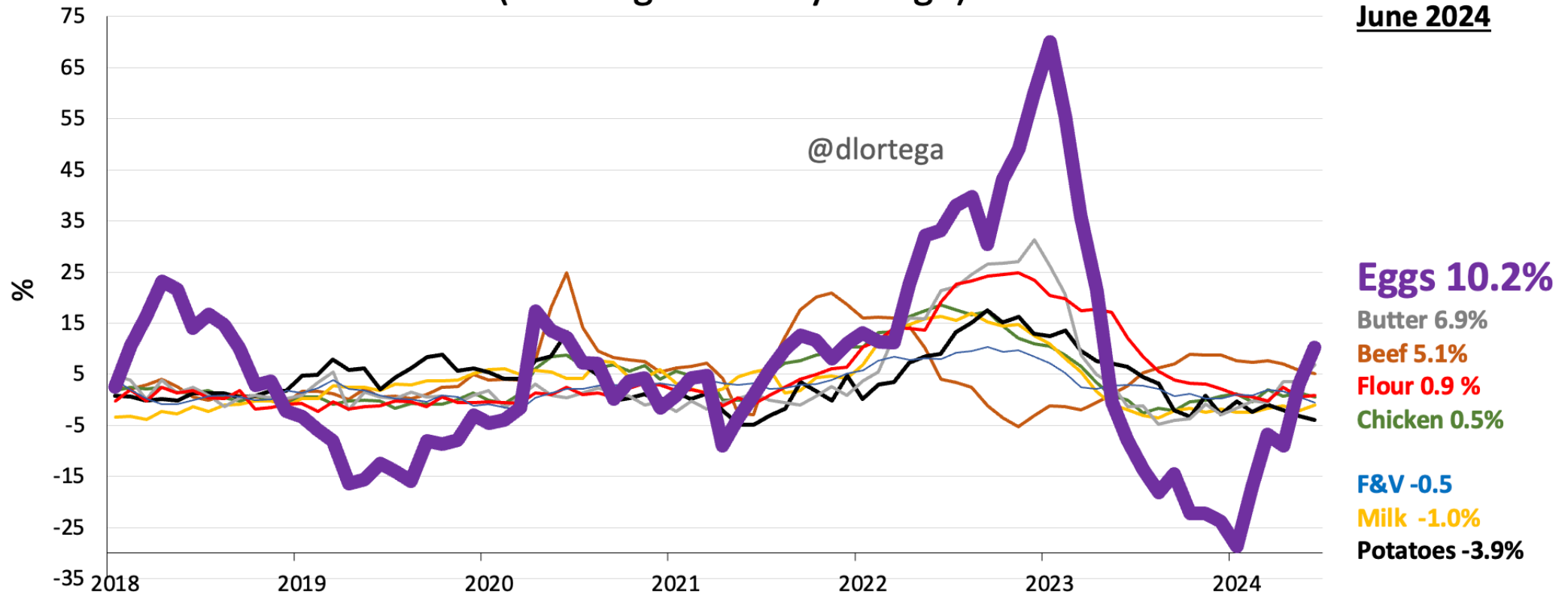


Data Source: Bureau of Labor Statistics
Created by David L. Ortega



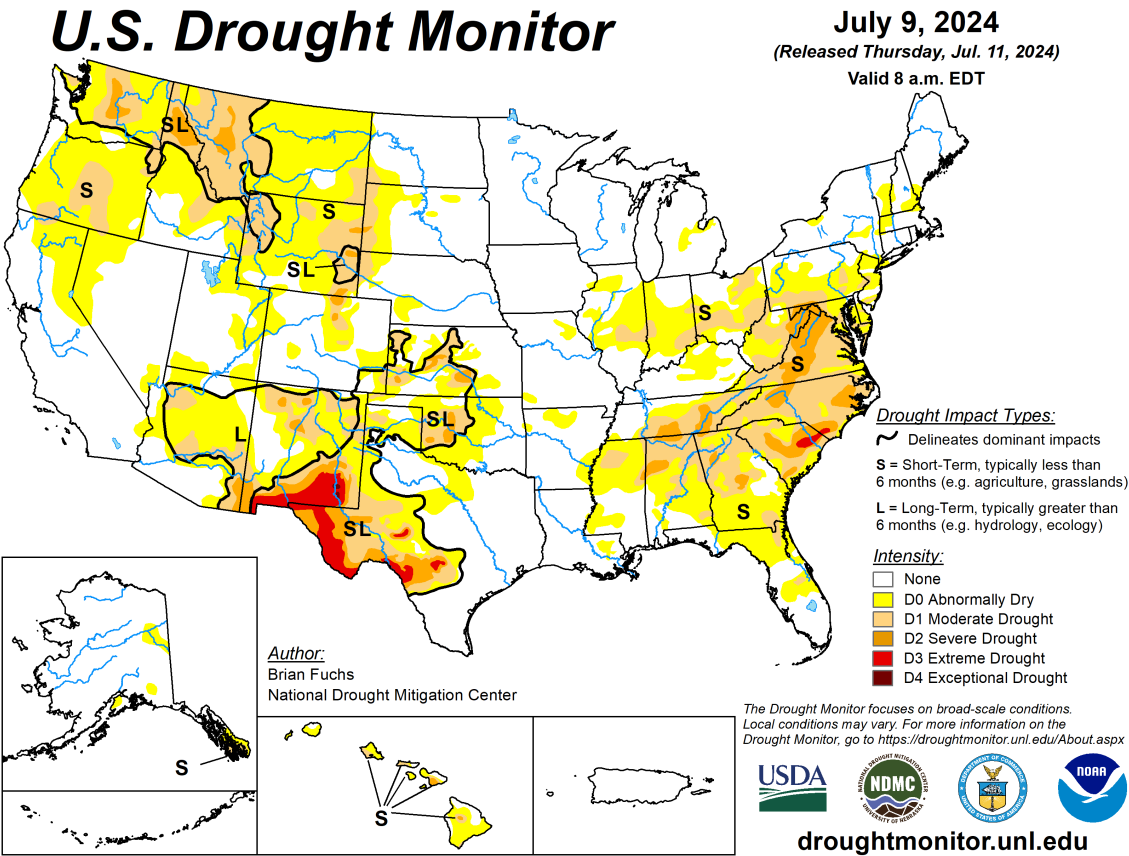
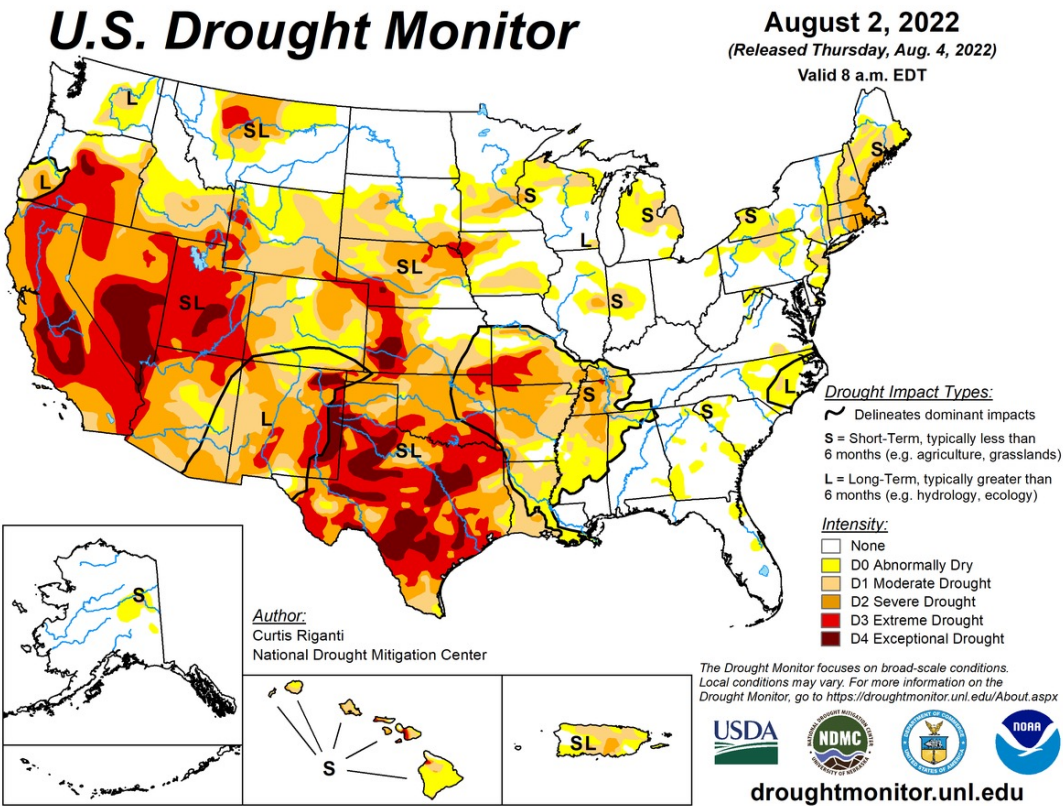
U.S. Consumer Egg Prices (% change from a year ago)

June 2024



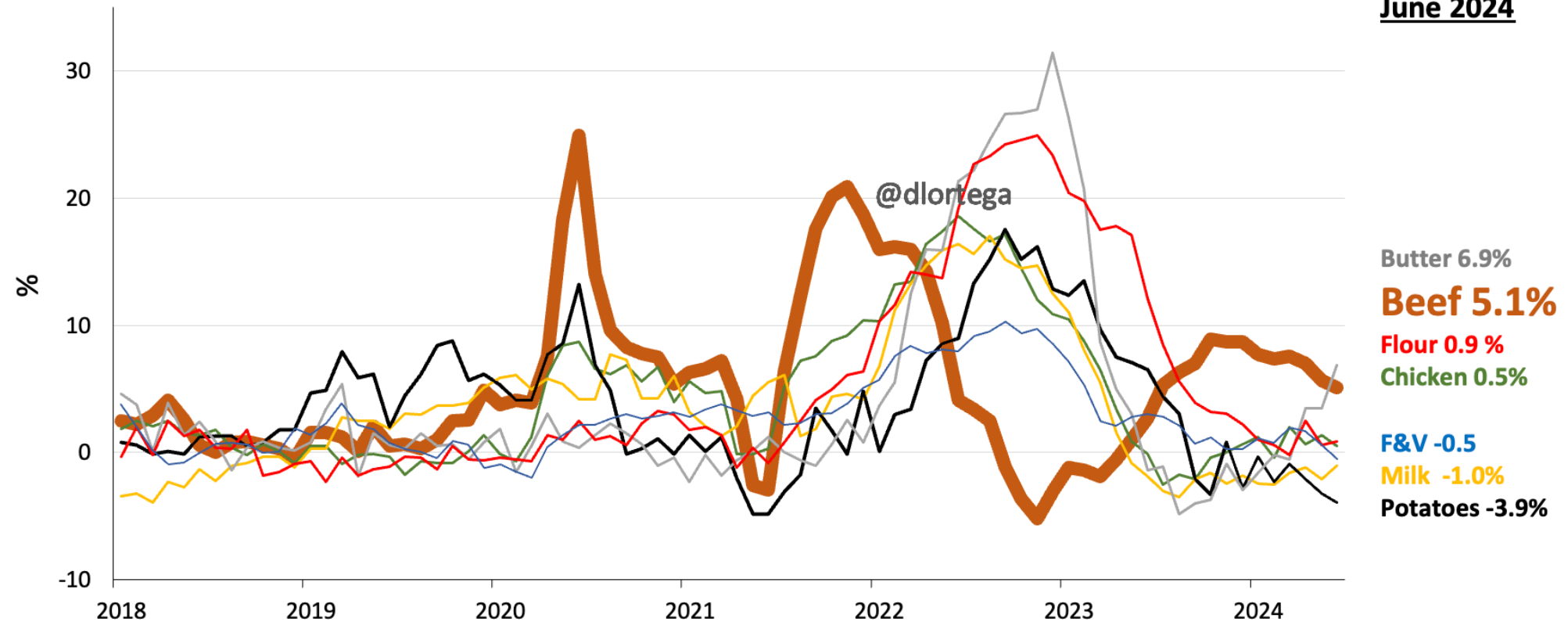
Data Source: Bureau of Labor Statistics
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Drought



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

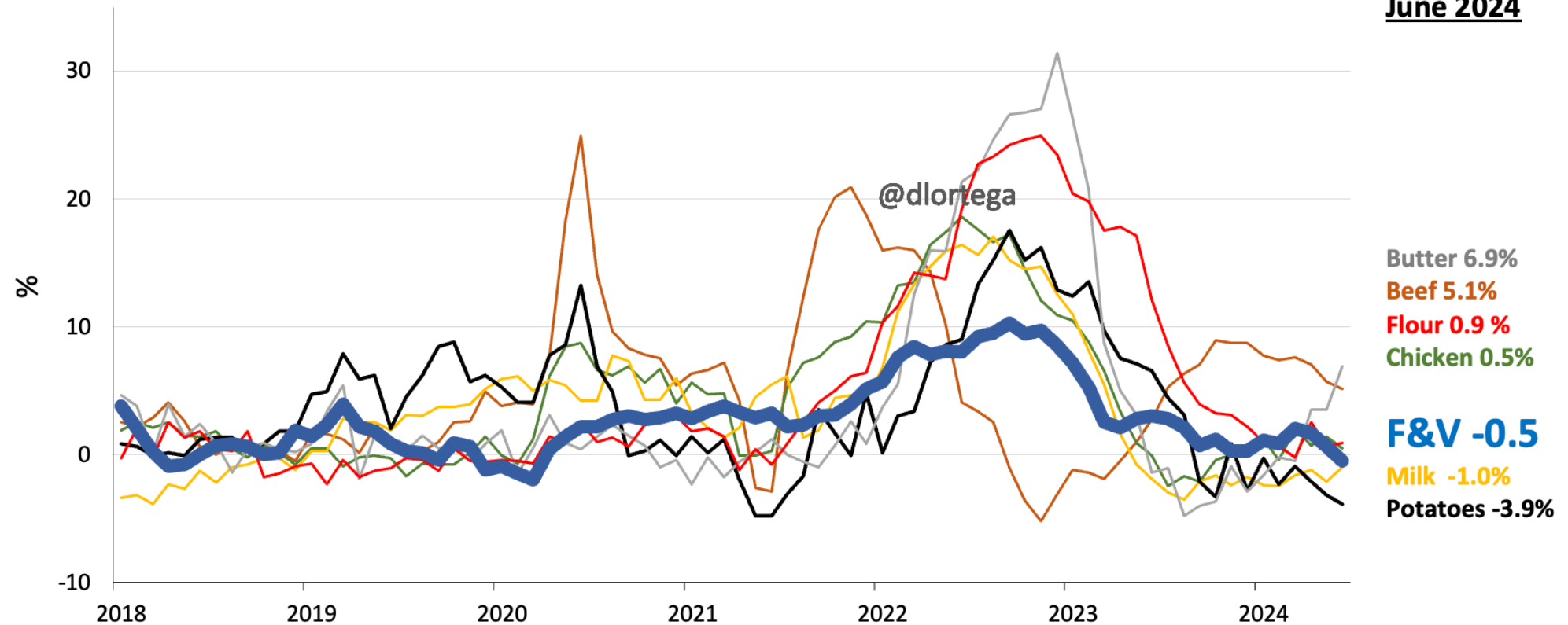
June 2024



Data Source: Bureau of Labor Statistics
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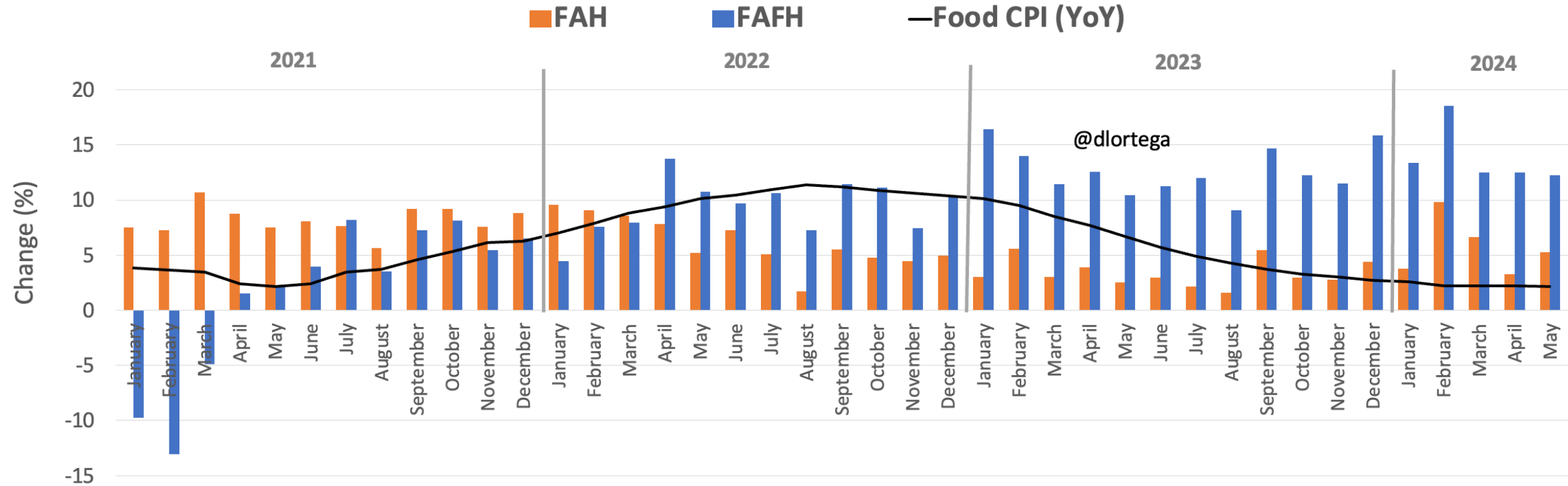
U.S. Consumer Fruit and Vegetable Prices (% change from a year ago)

June 2024

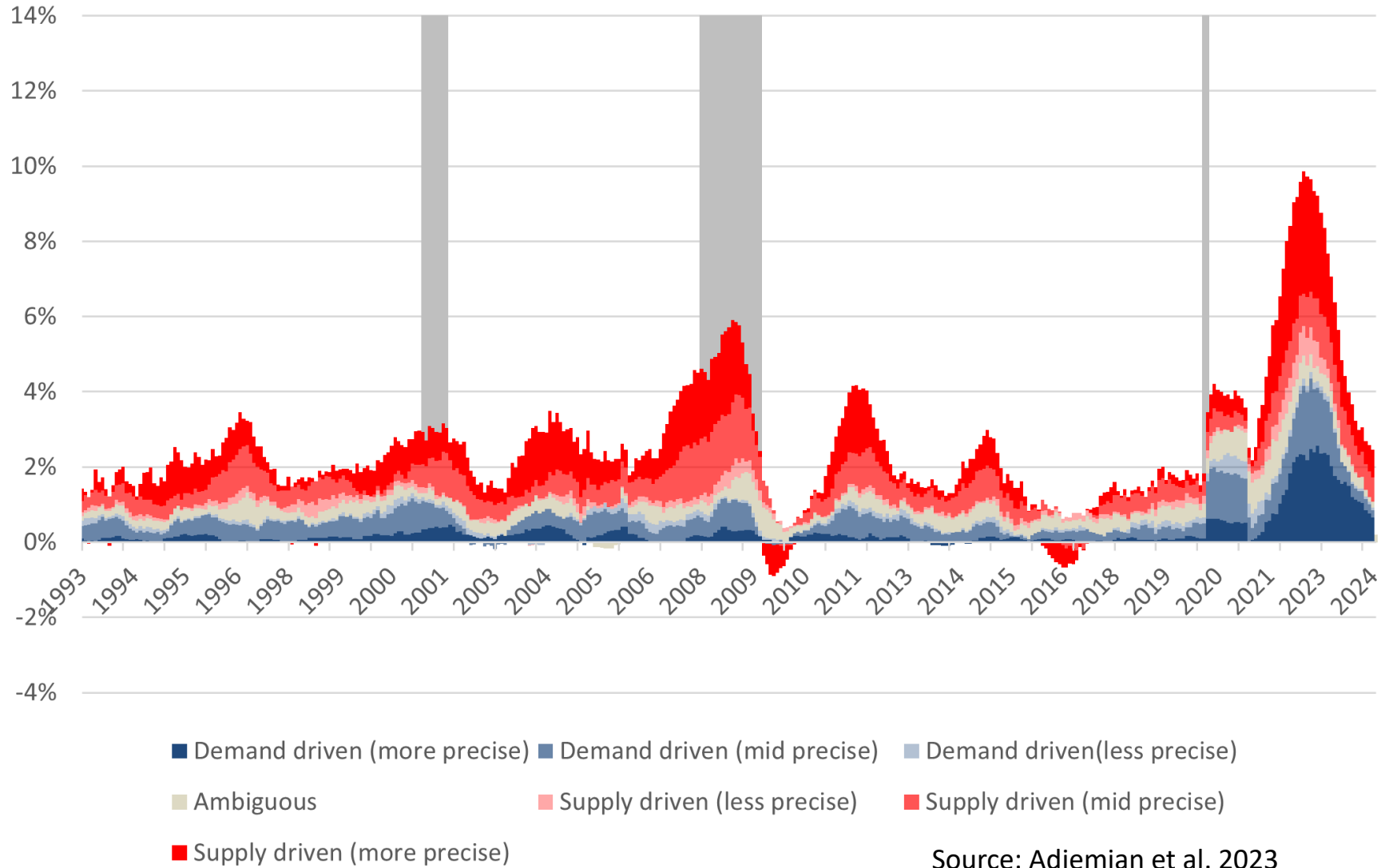


Data Source: Bureau of Labor Statistics
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Inflation Adjusted Consumer Food Spending in 2021-24 relative to 2019

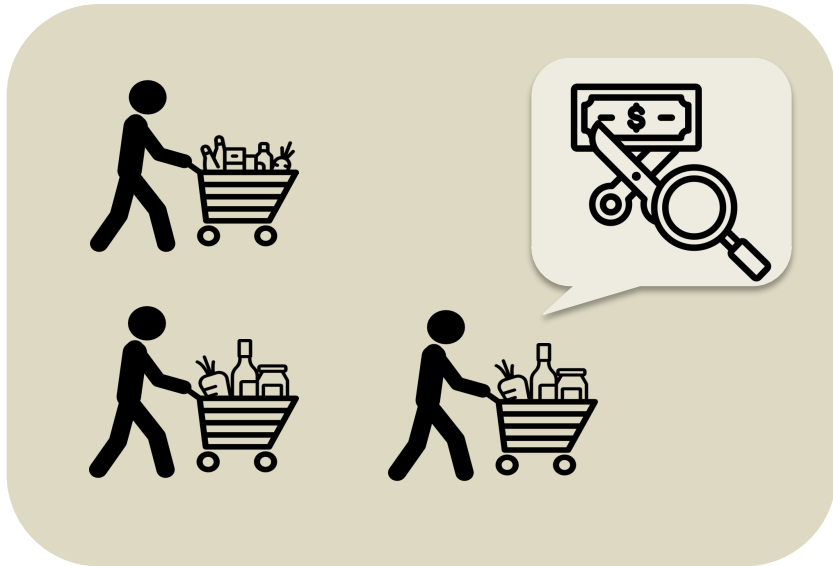


Note: Food spending is inflation adjusted using 1988 as baseline. Food CPI is y/y.
Source: USDA, ERS Food Expenditure Series. Bureau of Labor Statistics.



Source: Adjemian et al. 2023

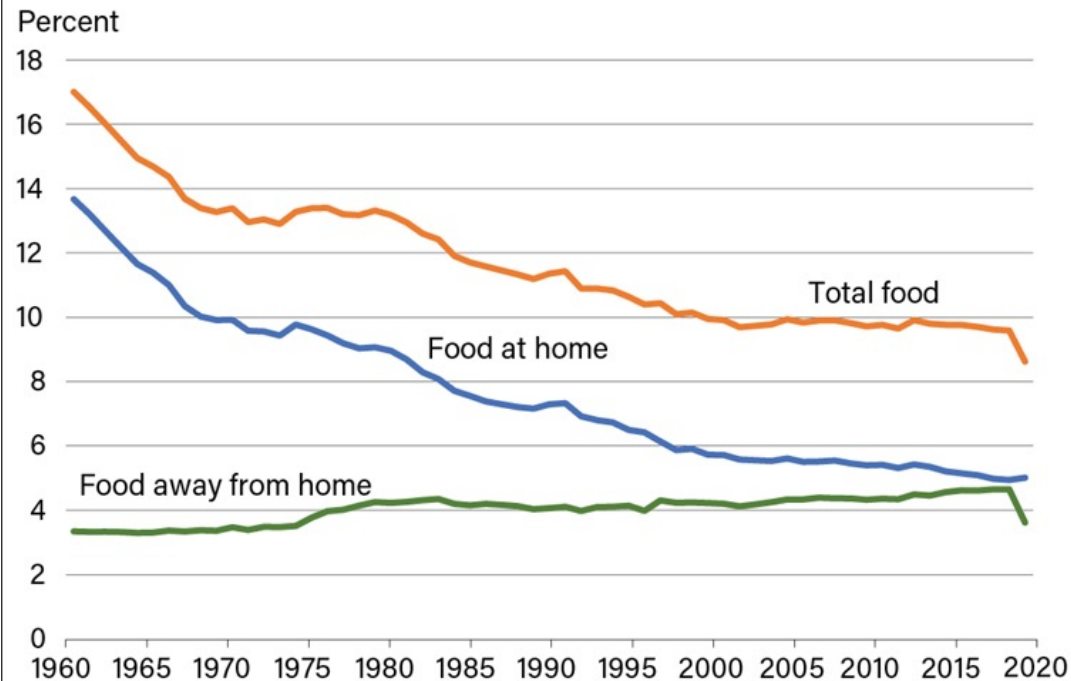
Changes in consumer behavior



- 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

Share of disposable personal income spent on food in the United States, 1960-2020



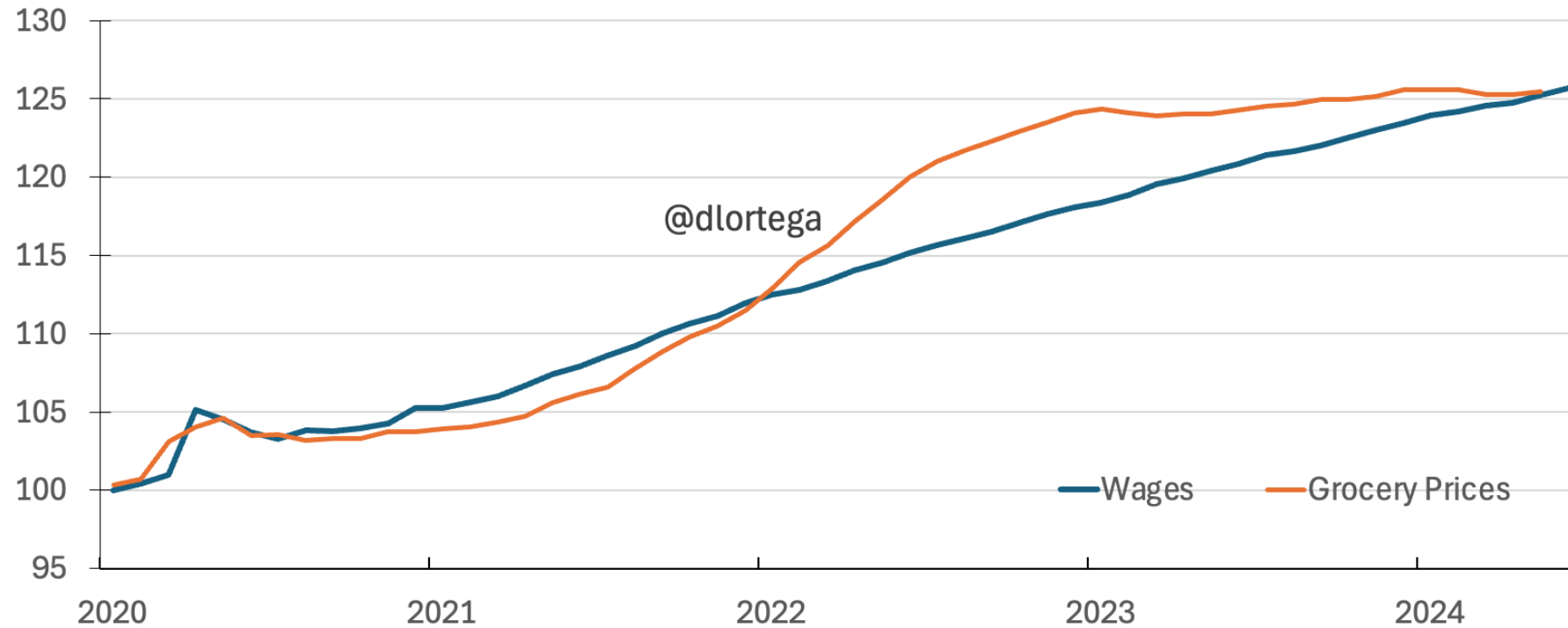
Source: USDA, Economic Research Service, Food Expenditure Series.

Food spending and share of income spent on food across U.S. households, 2020



Source: USDA, Economic Research Service using data from the U.S. Bureau of Labor Statistics, Consumer Expenditure Survey, 2020.

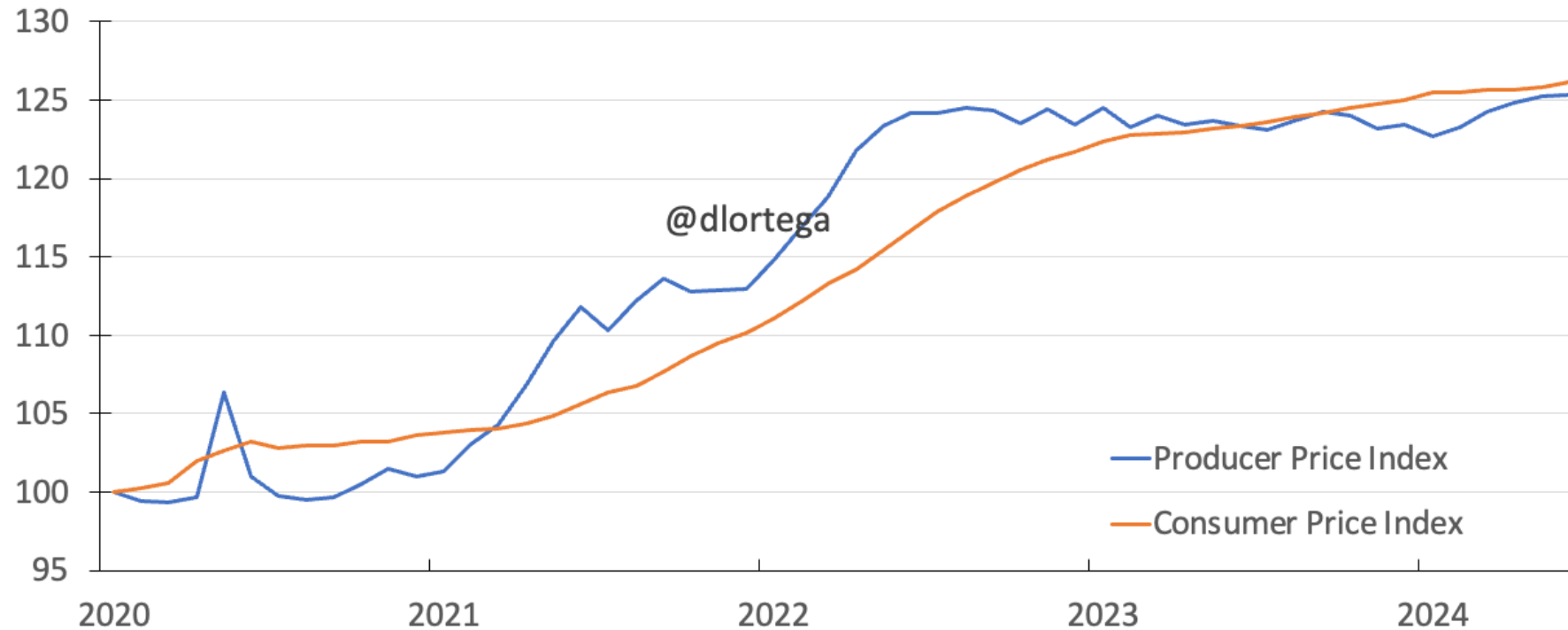
Grocery Prices vs Wages



Source: Bureau of Labor Statistics

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

Food Inflation: Producer and Consumer Prices

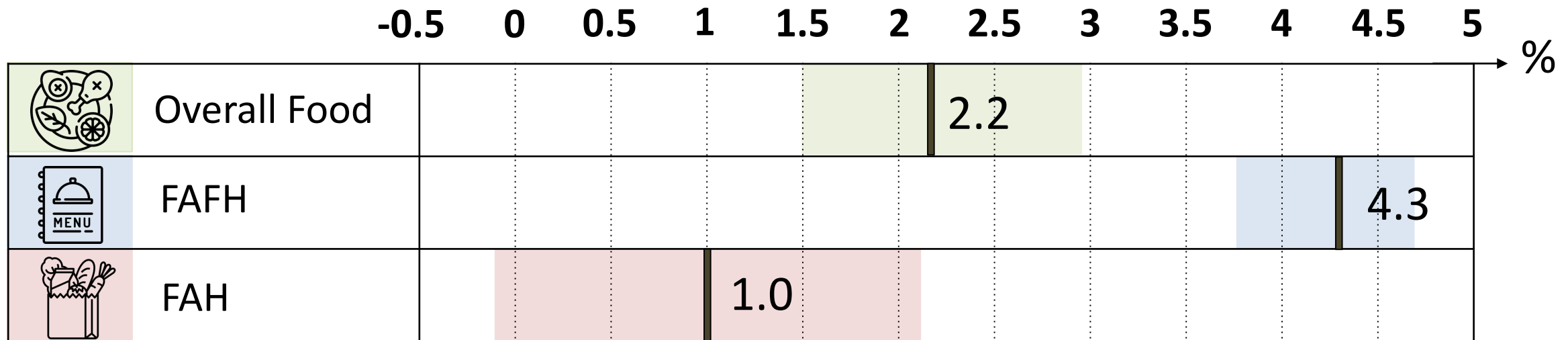


Source: Bureau of Labor Statistics

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

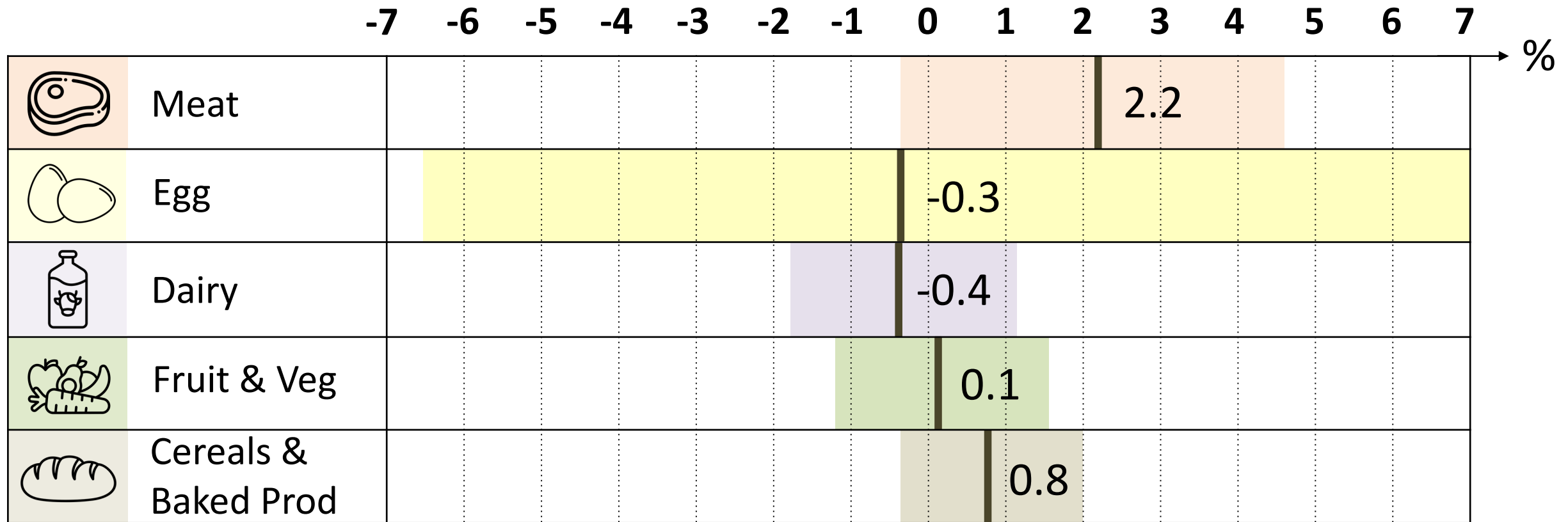
USDA Food Price Outlook Forecast (as of July 25)

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