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Food Price Outlook: Forecasting Food Prices with Enhanced Methodologies

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ABSTRACT: The USDA Economic Research Service (ERS) Food Price Outlook (FPO) provides essential data and forecasts on food prices, predicting annual changes up to 18 months ahead. Updated monthly, these forecasts are primarily based on the U.S. Department of Labor's Consumer Price Index (CPI) and Producer Price Index (PPI) data, and are typically released on the 25th of each month, adjusted if this date falls on a weekend or holiday. The all-items CPI tracks price changes for a representative basket of consumer goods and services, with the CPI for food specifically measuring retail food price changes. USDA, ERS constructs forecasts for the CPI for food, which are crucial for stakeholders like farmers, processors, wholesalers, consumers, and policymakers. The PPI, in contrast, measures the average change in prices paid to domestic producers for their output, providing insight into farm-level and wholesale-level food markets. These indices are essential for forecasting retail food prices. In January 2023, USDA, ERS introduced a revised methodology for the FPO, enhancing the accuracy of these forecasts. Historical data files and summary findings are now based on this updated method. While the previous methodology's forecasts are archived, the new method's historical forecast series extends back to 2003 for CPI and 2014 for PPI, including prediction intervals. USDA, ERS offers a data training webinar to help users navigate and utilize the FPO data product effectively. This abstract outlines the significance of the FPO, its methodological advancements, and its critical role in providing reliable food price forecasts.

KEYWORDS: USDA ERS Food Price Outlook, CPI, PPI, Retail food prices

I. INTRODUCTION

1.1 Background on Food Price Forecasting
The USDA Economic Research Service (ERS) Food Price Outlook (FPO) provides essential data and forecasts on food prices, projecting annual changes up to 18 months in advance. These forecasts are primarily based on the U.S. Department of Labor's Consumer Price Index (CPI) and Producer Price Index (PPI) data, with updates released typically on the 25th of each month, adjusted for weekends or holidays. The CPI measures the average change in prices paid by urban consumers for a representative market basket of goods and services, while the PPI tracks changes in prices paid to domestic producers for their output. USDA, ERS uses these indices to forecast retail food prices, which are crucial for stakeholders such as farmers, processors, wholesalers, consumers, and policymakers.

1.2 Importance of Accurate Food Price Forecasting
Accurate food price forecasting is vital for effective decision-making in the food sector. Reliable forecasts help stakeholders anticipate price changes, manage economic risks, and make informed decisions. By understanding and predicting trends in food prices, authorities can better address economic challenges, adjust policies, and implement strategies to stabilize food markets. This contributes to overall economic stability and helps maintain consumer confidence in food pricing.

1.3 Purpose and Objectives of the Study
The purpose of this study is to analyze the USDA ERS's Food Price Outlook data to understand trends and patterns in food price forecasting. The objectives are to:
- Examine the methodologies used in food price forecasting and their impact on predictions.
- Analyze trends and forecast accuracy over time.
- Utilize the revised forecasting methods to provide insights into future food price changes.

1.4 Overview of Food Price Forecasting Methods

1.4.1 Consumer Price Index (CPI)
The Consumer Price Index (CPI) measures the average change over time in the prices paid by urban consumers for a representative basket of goods and services. It is a key indicator used in forecasting food prices, reflecting retail food price changes that impact consumers directly.

1.4.2 Producer Price Index (PPI)
The Producer Price Index (PPI) measures the average change in prices paid to domestic producers for their output. It provides insight into farm-level and wholesale-level food markets, which are critical for forecasting retail food prices and understanding price changes at different stages of the food supply chain.

1.4.3 Revised Forecasting Methodology
In January 2023, USDA, ERS introduced a revised methodology for the Food Price Outlook, aiming to enhance the accuracy of food price forecasts. This new methodology replaces the previous approach used since 2011, incorporating updated forecasting techniques and historical data to improve prediction reliability.

1.4.4 Historical Data and Forecast Accuracy
Historical data series based on the current forecasting methods extend back to 2003 for CPI and 2014 for PPI, including prediction intervals. These series offer valuable insights into past forecast accuracy and methodological changes. The revised historical data series, updated in September 2023, enables reproducible estimates and reflects the most recent forecasting processes.

1.4.5 Data Training and Utilization
USDA, ERS offers data training webinars to help users effectively navigate and utilize the Food Price Outlook data product. These resources provide guidance on interpreting the data, understanding forecast methodologies, and applying insights to decision-making processes.

1.4.6 Tabulae
Tabulae is a data analysis tool used for processing and analyzing large datasets. It provides advanced capabilities for managing complex data, including food price forecasts, by facilitating detailed exploration and visualization. With its integration into the Food Price Outlook analysis, Tabulae enhances the ability to interpret and utilize large volumes of data efficiently. It supports robust data handling and analytical functions that are essential for deriving actionable insights from food price forecasting data.

II. LITERATURE REVIEW

2.1 Historical Context of Food Price Forecasting
Food price forecasting has undergone significant evolution from its early days, which relied on basic trend analysis and historical data. Initial methods were limited by their inability to address the complexity of modern food systems and economic variables. Over time, advancements in econometric modeling and computational technology have enhanced forecasting accuracy. Early models struggled with non-linearity and external shocks, prompting the development of more sophisticated methods. The integration of macroeconomic indicators, such as inflation rates and global trade data, has become crucial in improving forecast precision and adapting to the dynamic nature of food markets.

2.2 Methodologies in Food Price Forecasting
Food price forecasting has utilized a range of methodologies, each offering distinct advantages and limitations. Traditional econometric approaches, including autoregressive integrated moving average (ARIMA) models and vector autoregression (VAR), provided foundational insights but often fell short in capturing complex interactions and sudden market changes. Recent advancements have incorporated machine learning techniques, such as neural networks and ensemble methods, which excel in identifying intricate patterns within large datasets. These modern approaches offer improved accuracy by adapting to evolving data trends and enhancing the robustness of forecasts. The integration of real-time data and sophisticated analytics further refines the forecasting process.

2.3 Impact of Economic Indicators on Food Prices
Economic indicators like the Consumer Price Index (CPI) and Producer Price Index (PPI) are critical in forecasting food prices. The CPI reflects retail food price changes experienced by consumers, while the PPI provides insights into price changes at the producer level. Research has demonstrated that fluctuations in these indices can significantly

influence food price forecasts. Additionally, factors such as commodity prices, exchange rates, and agricultural productivity have been shown to impact food price trends. Incorporating these indicators into forecasting models is essential for capturing the full spectrum of influences on food prices.

2.4 Revised Forecasting Methodologies

In January 2023, USDA, ERS introduced a revised methodology for the Food Price Outlook to address limitations in previous forecasting approaches. This updated methodology incorporates enhanced statistical techniques and updated data, improving forecast accuracy and reliability. The revision aims to better capture emerging trends and provide more precise predictions. Studies evaluating the impact of this new methodology have highlighted significant improvements in forecast precision and the ability to account for complex market dynamics. These advancements reflect ongoing efforts to refine forecasting methods and address the evolving challenges in food price prediction.

2.5 Challenges and Future Directions

Despite advancements, food price forecasting continues to face challenges due to the inherent complexity of food systems and the influence of numerous external factors. Key challenges include the need for more detailed and granular data, the ability to handle structural changes in the food economy, and the impact of extreme events such as climate change and geopolitical tensions. Future research is expected to focus on integrating advanced machine learning techniques, improving data quality, and developing more robust forecasting models to address these challenges and enhance forecasting accuracy.

2.6 Data Visualization and Analysis Tools

Data visualization and analysis tools play a crucial role in interpreting and utilizing food price forecasts. Tools such as Tableau and Tabulae are essential for exploring and visualizing complex datasets, allowing users to create interactive dashboards and derive actionable insights. These tools facilitate the identification of trends and patterns, enabling stakeholders to make informed decisions based on visual representations of data. The effective application of data visualization techniques enhances the understanding of forecast results and supports strategic decision-making in the food sector.

III. METHODOLOGY

3.1 Data Collection and Sources
- **Data Sources:** This study utilizes data from the USDA Economic Research Service (ERS) Food Price Outlook (FPO) and other relevant economic indicators to forecast food prices.
  - **USDA ERS Food Price Outlook:** Provides monthly updates on food price forecasts, including historical data and prediction intervals.
    - **Access:** USDA ERS Food Price Outlook
  - **Consumer Price Index (CPI):** Measures the average change in retail food prices over time.
    - **Access:** U.S. Department of Labor, Bureau of Labor Statistics (BLS) CPI Data
  - **Producer Price Index (PPI):** Tracks changes in prices at the producer level, impacting food prices.
    - **Access:** U.S. Department of Labor, Bureau of Labor Statistics (BLS) PPI Data
- **Data Collection Process:** Data is collected by retrieving monthly forecast updates, historical data series, and economic indicators from the USDA ERS and BLS databases. Extraction tools and methods such as SQL queries, API calls, and data import functions in software like Excel and Tableau are employed to compile and organize the data.

3.2 Data Analysis and Validation
- **Data Analysis:**
  - **Descriptive Statistics:** Summarizes forecast data, including annual percentage changes in food prices, using frequencies, percentages, and mean values to provide an overview of price trends.
  - **Trend Analysis:** Identifies and analyzes patterns in food price changes over time using time-series analysis methods to understand historical and predicted trends.
  - **Comparative Analysis:** Compares food price forecasts across different periods and economic conditions using comparative metrics and visualizations to assess the impact of various factors on food prices.
  - **Correlation Analysis:** Examines relationships between variables, such as the impact of CPI and PPI on food price forecasts, using correlation coefficients to understand how changes in economic indicators affect food prices.

- **Validation and Reliability:**
  - **Data Verification:** Ensures the accuracy and reliability of forecasts by cross-referencing data from multiple sources, including historical forecasts and revised methodologies. Consistency checks are performed to verify data integrity and address any discrepancies in the forecast results.

IV. DATA DESCRIPTION

4.1 Overview of Data
The dataset encompasses annual percent changes in Consumer Price Indexes (CPIs) for a variety of food categories from 1974 to 2023. This dataset provides insight into the historical price trends and inflation rates associated with different food items and categories, helping to analyze economic trends in the food sector over nearly five decades.

4.2 Data Categories and Definitions
- **All Food**: The CPI for all food items combined, reflecting the general price trend for food consumed.
- **Food Away from Home**: The CPI for meals and snacks consumed outside the home, including dining at restaurants, fast food, and other eating establishments.
- **Food at Home**: The CPI for food purchased for home consumption, including groceries and other food items bought for cooking at home.
- **Meats, Poultry, and Fish**: The CPI for a combined category of meat, poultry, and fish products, reflecting overall trends in these protein sources.
- **Meats**: The CPI for various types of meat products, excluding poultry and fish.
- **Beef and Veal**: The CPI specifically for beef and veal products.
- **Pork**: The CPI for pork products.
- **Other Meats**: The CPI for other types of meat not classified under beef, veal, or pork.
- **Poultry**: The CPI for poultry products, including chicken and turkey.
- **Fish and Seafood**: The CPI for fish and seafood products.
- **Eggs**: The CPI for eggs, tracking price changes specific to this category.
- **Dairy Products**: The CPI for dairy items, including milk, cheese, and yogurt.
- **Fats and Oils**: The CPI for various fats and oils used in cooking and food preparation.
- **Fruits and Vegetables**: The CPI for both fresh and processed fruits and vegetables.
- **Fresh Fruits and Vegetables**: The CPI specifically for fresh fruits and vegetables.
- **Fresh Fruits**: The CPI for fresh fruit products.
- **Fresh Vegetables**: The CPI for fresh vegetable products.
- **Processed Fruits and Vegetables**: The CPI for fruits and vegetables that have been processed, such as canned or frozen varieties.
- **Sugar and Sweets**: The CPI for sugar and sweet products, including candies and sugary treats.
- **Cereals and Bakery Products**: The CPI for cereals, bread, and other bakery items.
- **Nonalcoholic Beverages**: The CPI for beverages excluding alcoholic drinks, such as coffee, tea, and soft drinks.
- **Other Foods**: The CPI for miscellaneous food items not covered in the above categories, including spices, condiments, and specialty food products.

4.3 Summary Statistics
- **Time Span**: 1974 to 2023
- **Number of Categories**: 22
- **Data Points per Category**: 50 (one data point for each year)

4.4 Trends and Observations
- **Historical Inflation Trends**: Significant inflationary periods are noted in the 1970s and early 1980s, particularly in categories such as fats and oils, sugar and sweets, and cereals and bakery products. These periods are characterized by higher inflation rates compared to the later years.
- **Recent Trends**: From 2010 onwards, many categories exhibit more moderate inflation rates, with occasional deflation observed in certain categories such as meats and dairy products. This reflects changes in consumer behavior, global trade, and agricultural production.
- **Notable Fluctuations**: Categories like eggs and dairy products have shown notable fluctuations in their price trends, often influenced by supply chain issues, production costs, and market demand.

4.5 Data Quality and Reliability

- **Source**: The data is sourced from official CPI reports and surveys conducted by relevant government agencies.
- **Accuracy**: Data accuracy is maintained through regular updates and revisions based on market conditions and statistical methodologies.
- **Limitations**: The dataset may not account for regional variations or specific local market conditions. It provides an aggregate view of price changes across the entire dataset period

4.6 Data Sample:

Annual percent changes in selected Consumer Price Indexes, 1974 through 2023

Consumer Price Index item	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
All food	14.3	8.5	3.0	6.3	9.9	11.0	8.6	7.8	4.1	2.1	3.8	2.3
Food away from home	12.7	9.4	6.8	7.6	9.1	11.1	9.9	9.0	5.4	4.4	4.2	3.9
Food at home	14.9	8.2	2.1	5.9	10.5	10.8	8.1	7.2	3.5	1.0	3.7	1.5
Meats, poultry, and fish	2.2	8.5	0.9	-0.6	16.7	14.9	3.7	4.1	4.1	-0.7	1.7	-0.4
Meats	1.8	8.5	0.2	-2.3	18.6	17.0	2.9	3.6	4.9	-1.2	0.3	-0.9
Beef and veal	2.9	1.0	-3.2	-0.7	22.9	27.4	5.7	0.8	1.4	-1.5	1.2	-2.1
Pork	-0.5	22.4	1.3	-5.4	12.9	1.6	-3.3	9.3	12.8	-0.9	-1.3	0.3
Other meats	3.1	5.9	5.9	-0.6	17.7	14.7	3.8	4.3	3.0	-0.4	0.4	0.7
Poultry	-5.1	10.5	-4.1	0.7	10.4	4.9	5.2	4.1	-1.7	1.3	10.6	-1.0
Fish and seafood	15.3	8.5	11.7	10.8	9.4	9.7	9.2	8.3	3.6	1.1	3.2	4.9
Eggs	0.4	-1.8	9.2	-3.2	-5.4	9.5	-1.8	8.2	-2.7	4.7	11.7	-16.6
Dairy products	18.6	3.1	8.1	2.7	6.8	11.6	9.8	7.2	1.4	1.2	1.3	1.9
Fats and oils	41.9	10.7	-12.5	10.1	9.6	7.9	6.7	10.6	-2.7	1.4	9.4	2.2
Fruits and vegetables	16.5	3.1	2.6	9.2	11.1	8.0	7.2	12.1	5.4	0.3	8.6	2.6
Fresh fruits and vegetables	7.8	2.3	2.4	13.6	12.9	7.6	7.5	12.0	5.6	-0.3	10.9	2.6
Fresh fruits	8.7	6.8	-0.2	14.9	19.5	12.4	6.3	5.4	11.1	-4.2	11.0	10.1
Fresh vegetables	7.3	-1.1	4.3	12.6	8.0	3.0	8.8	18.6	0.5	3.6	10.9	-4.3
Processed fruits and vegetables	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sugar and sweets	52.4	26.1	-11.3	5.0	12.3	7.8	23.0	8.0	-0.2	1.8	3.9	2.5
Cereals and bakery products	29.9	11.3	-2.2	1.6	9.0	10.0	12.0	10.0	4.6	3.2	4.3	3.8
Nonalcoholic beverages	19.3	15.0	19.6	50.6	5.8	5.0	10.7	4.3	2.7	1.9	2.5	2.0
Other foods	21.4	12.8	4.1	3.4	8.0	10.1	10.9	10.3	5.2	3.1	3.0	3.3

[Fig:1]

[fig:1] The dataset contains annual Consumer Price Index (CPI) data for various food categories from 1974 to 2023. It tracks price changes for items such as meats, poultry, fish, dairy products, and more, reflecting historical inflation trends in the food sector. This data provides insights into price fluctuations, economic trends, and consumer spending behavior over nearly five decades.

| Consumer Price Index item	Relative importance[1]	April 2024 to May 2024	May 2023 to May 2024	Year-to-date avg. 2024 to avg. 2023	Annual 2021	Annual 2022	Annual 2023	average (2004–2023)	Prediction Interval 2024[2]		
	Percent	Percent change	Percent change	Percent change	Percent change	Percent change	Percent change	Percent change	Percent change		
									Lower	Mid	Upper
All food	100.0	0.1	2.1	1.6	3.9	9.9	5.8	3.0	1.2	2.2	3.2
Food away from home	39.8	0.4	4.0	3.0	4.5	7.7	7.1	3.4	3.6	4.2	4.8
Food at home	60.2	0.0	1.0	0.8	3.5	11.4	5.0	2.7	-0.4	1.0	2.5
Meats, poultry, and fish	11.7	0.6	2.3	0.6	6.8	9.6	2.0	3.3	-0.5	1.8	4.3
Meats	7.6	0.6	3.6	1.5	7.7	8.2	2.1	3.4	-0.8	2.3	5.5
Beef and veal	3.4	0.3	5.7	3.3	9.3	5.3	3.6	4.3	-0.2	3.9	8.4
Pork	2.4	1.4	2.6	-0.3	8.6	8.7	-1.2	2.5	-2.6	1.1	4.7
Other meats	1.8	0.4	1.0	0.5	2.9	14.2	4.5	2.8	-0.7	1.1	3.0
Poultry	2.3	0.4	1.2	0.3	5.1	14.6	3.1	3.0	-0.8	1.1	3.0
Fish and seafood	1.9	0.3	-1.0	-2.0	5.4	9.1	0.3	3.2	-2.9	-1.1	0.7
Eggs	0.9	-2.4	3.0	1.7	4.5	32.2	1.4	4.1	-7.6	0.1	9.5
Dairy products	5.4	-0.3	-1.0	-0.8	1.4	12.0	4.0	2.5	-2.9	-1.1	0.8
Fats and oils	1.9	0.1	2.2	1.9	4.6	18.5	9.0	3.6	0.3	2.8	5.5
Fruits and vegetables	10.4	0.2	0.6	0.9	3.2	8.5	2.5	2.2	-0.8	0.9	2.6
Fresh fruits and vegetables	7.8	0.2	0.2	0.9	3.3	7.5	0.8	2.0	-1.4	0.7	2.8
Fresh fruits	4.2	0.5	-0.2	0.5	5.5	7.9	0.7	2.0	-1.9	0.5	3.1
Fresh vegetables	3.7	-0.3	0.8	1.2	1.1	7.0	0.9	2.1	-1.7	1.0	3.8
Processed fruits and vegetables	2.5	0.4	1.7	1.1	2.9	12.0	8.0	2.9	0.4	2.6	4.9
Sugar and sweets	2.2	0.0	3.9	2.7	3.0	10.4	8.7	2.8	2.0	3.8	5.6
Cereals and bakery products	7.8	0.3	0.7	0.4	2.3	13.0	8.4	2.9	-0.7	0.9	2.4
Nonalcoholic beverages	7.7	-0.6	1.3	2.1	2.8	11.0	7.0	2.2	1.0	2.5	4.2
Other foods	12.2	-0.3	0.4	0.6	2.2	12.7	6.6	2.4	-0.8	0.8	2.5

[Fig:2]

[Fig:2] This table shows the Consumer Price Index (CPI) changes for various food categories, including overall food, dining out, and at-home food items. It includes monthly and yearly percent changes, historical data, and predictions for 2024. This data helps track food price trends and forecast future costs.

V. DATA VISUALIZATIONS

[Fig:3]

The treemap visualizes the Consumer Price Index (CPI) data for various food categories and their expenditure changes. Each rectangle in the treemap represents a different category or subcategory, with the size and color of the rectangles providing insights into their relative importance and performance over time.
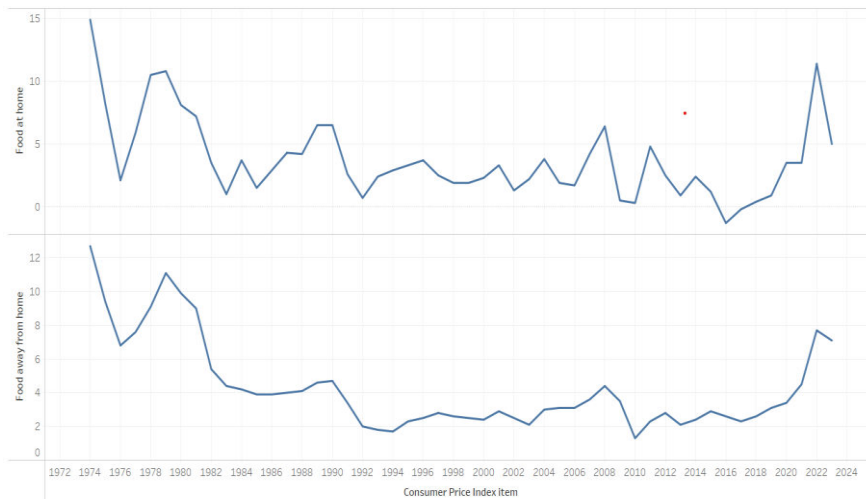

[Fig:4]

The chart depicts the changes in the Consumer Price Index (CPI) for food at home and food away from home over a span of years from 1972 to 2024. The CPI measures the average change over time in the prices paid by urban consumers for a market basket of consumer goods and services.
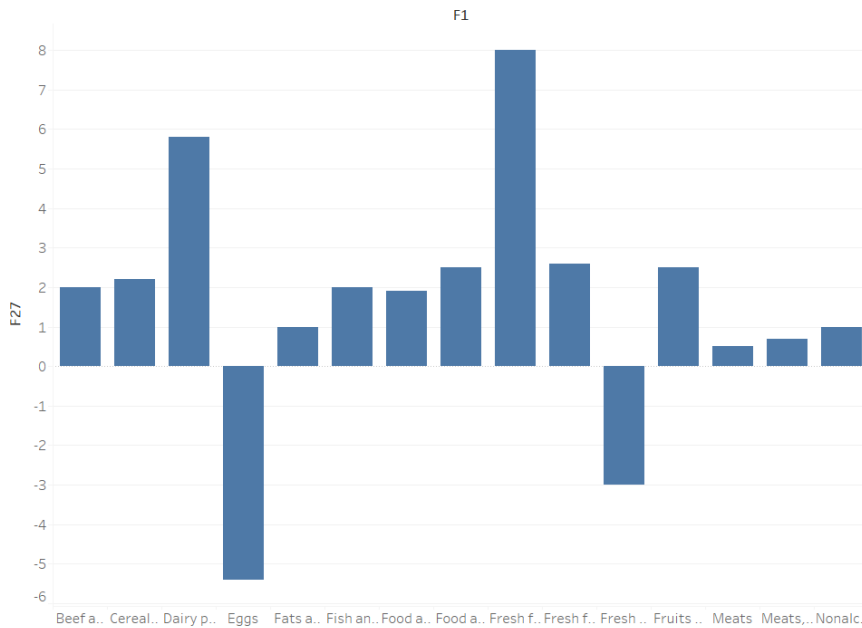
[Fig:5]

This bar chart is used to display and compare the CPI data across various categories and subcategories. Each bar represents a category or subcategory, with the length of the bar corresponding to a specific metric, such as the percentage change in prices.
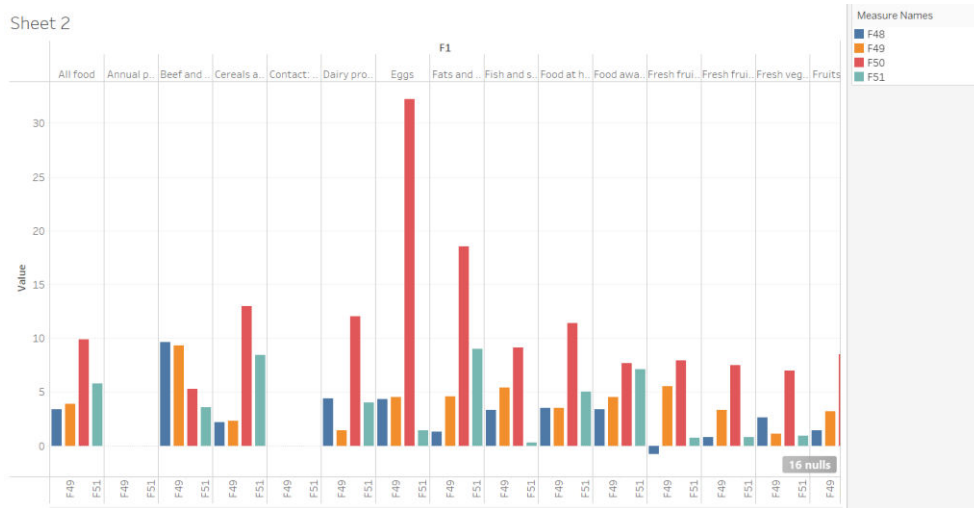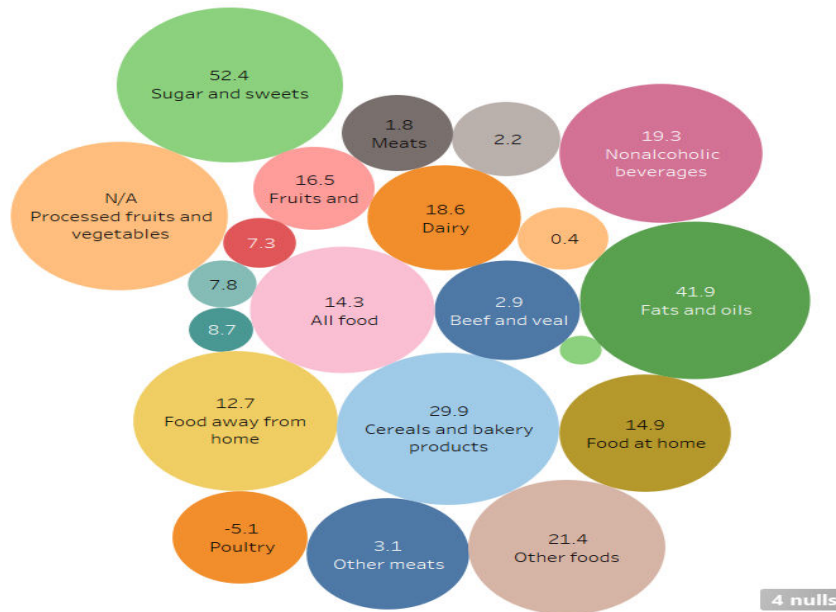

[Fig:6]

This side-by-side bar chart provides a comparative view of different metrics for each food category. It includes bars for month-to-month percentage change, year-over-year percentage change, and year-to-date average percentage change

[Fig:7]

Each bubble represents a food category, with its position on the x-axis showing the month-to-month percentage change and its position on the y-axis indicating the year-over-year percentage change. The size of the bubble reflects the category's relative importance in the CPI data, and the color represents the historical average change over the past 20 years

VI. KEY FINDINGS AND ACTIONABLE INSIGHTS

6.1 Key Findings

6.1.1 Overall Food Inflation Trends
- **Example:** "All food" index showed a 2.1% increase year-over-year from May 2023 to May 2024.
- **Implication:** General rise in food prices, with varying rates across different categories.

6.1.2 Significant Increase in Food Away from Home
- **Example:** "Food away from home" increased by 4.0% year-over-year.
- **Implication:** Higher costs for dining out compared to home-prepared meals.

6.1.3 Variability in Food At Home Costs
- **Example:** "Food at home" rose by 1.0% year-over-year, with notable differences in subcategories like meats and dairy.
- **Implication:** Mixed trends in home food costs, highlighting specific areas of inflation or deflation.

6.1.4 Fluctuating Prices in Specific Food Categories
- **Example:** "Eggs" experienced a 3.0% increase year-over-year, while "Dairy products" saw a decrease of 1.0%.
- **Implication:** Some food categories face sharp price changes, affecting overall food budgeting.

6.2 Actionable Insights
6.2.1 Monitor High Inflation Categories
- **Focus:** Track and address cost increases in categories with significant year-over-year changes, like food away from home.

6.2.2 Adjust Budgeting for Home Food Costs

- **Focus:** Reassess budgets for home food expenditures, especially in categories showing higher inflation or deflation.

6.2.3 Address Volatility in Specific Foods

- **Focus:** Implement strategies to manage and mitigate the impact of price volatility in categories like eggs and dairy products.

6.2.4 Plan for Future Trends

- **Focus:** Use historical data and predictions to plan for expected changes in food prices and adjust financial strategies accordingly.

VII. RESULTS

The Consumer Price Index (CPI) data for food items shows notable changes over different time periods:

Month-to-Month Changes: From April 2024 to May 2024, overall food prices increased by 0.1%. This minor rise is largely driven by a 0.4% increase in food away from home, indicating that dining out has become slightly more expensive. Conversely, the cost of food at home remained stable with no significant change.

Year-over-Year Trends: Comparing May 2023 to May 2024, overall food prices have risen by 2.1%. This increase is primarily due to a 4.0% rise in food away from home, suggesting that eating out has become substantially more costly. In contrast, food at home saw a more modest increase of 1.0%, reflecting a slower rate of price growth for groceries.

Year-to-Date Average: For 2024, the average price change for food has been 1.6% compared to the average for 2023. This indicates a gradual upward trend in food prices for the year.

Historical Comparison: The annual percent change for food items has varied over recent years. In 2023, overall food prices increased by 5.8%, a notable rise compared to previous years. This is part of a broader trend where food prices have fluctuated but generally increased over the past two decades.

Category-Specific Insights:

- **Meats, Poultry, and Fish:** Prices in this category have increased by 2.3% from May 2023 to May 2024. Within this category, meat prices have seen a significant rise, with beef and veal up by 5.7% and pork by 2.6%. However, some items like fish and seafood have experienced a decrease of 1.0%.
- **Eggs:** The price of eggs has increased by 3.0% year-over-year, with a notable price fluctuation compared to previous years.
- **Dairy Products:** Prices for dairy products have decreased by 1.0%, indicating a downward trend for this category.

Forecast for 2024: The prediction interval for 2024 suggests that food prices may continue to rise, particularly for food away from home, which is expected to increase by up to 4.8%. In contrast, the rise in food at home prices is projected to be lower, around 2.5%.

VIII. CONCLUSION

The analysis of Consumer Price Index (CPI) data reveals distinct patterns in food price changes across various categories, providing valuable insights into inflation trends and consumer behavior. The overall CPI for food increased by 0.1% from April 2024 to May 2024 and shows a 2.1% year-over-year increase from May 2023 to May 2024. This trend reflects a general upward movement in food prices, influenced by fluctuations in different food categories.

Food away from home exhibited a notable rise, with a 0.4% month-to-month increase and a significant 4.0% year-over-year change. This suggests that dining out is becoming more expensive, which could impact consumer spending patterns. Conversely, food at home experienced a more modest 0.0% month-to-month change and a 1.0% year-over-year increase, indicating slower price growth for groceries compared to restaurant meals.

Breaking down the categories further, meats, poultry, and fish saw a 0.6% month-to-month increase, while year-over-year changes varied significantly across subcategories like beef and veal, which increased by 5.7%, and pork, which

saw a smaller rise of 2.6%. Dairy products and eggs experienced diverse trends, with dairy products declining by 1.0% year-over-year, whereas egg prices surged by 3.0%.

The historical data from 1974 through 2023 shows that food price changes have fluctuated widely, with significant peaks during periods of economic instability. For instance, the 1970s witnessed high inflation rates, while recent years have seen more moderate changes. Understanding these historical patterns helps contextualize current data and predict future trends.

In conclusion, the CPI data highlights the varying impacts of inflation across different food categories and suggests that both consumers and policymakers need to stay informed about these trends to make strategic decisions regarding budgeting and resource allocation.

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