

54.51

Average of Temperature

\$3.58

Average Fuel Price

\$177.30

Average CPI

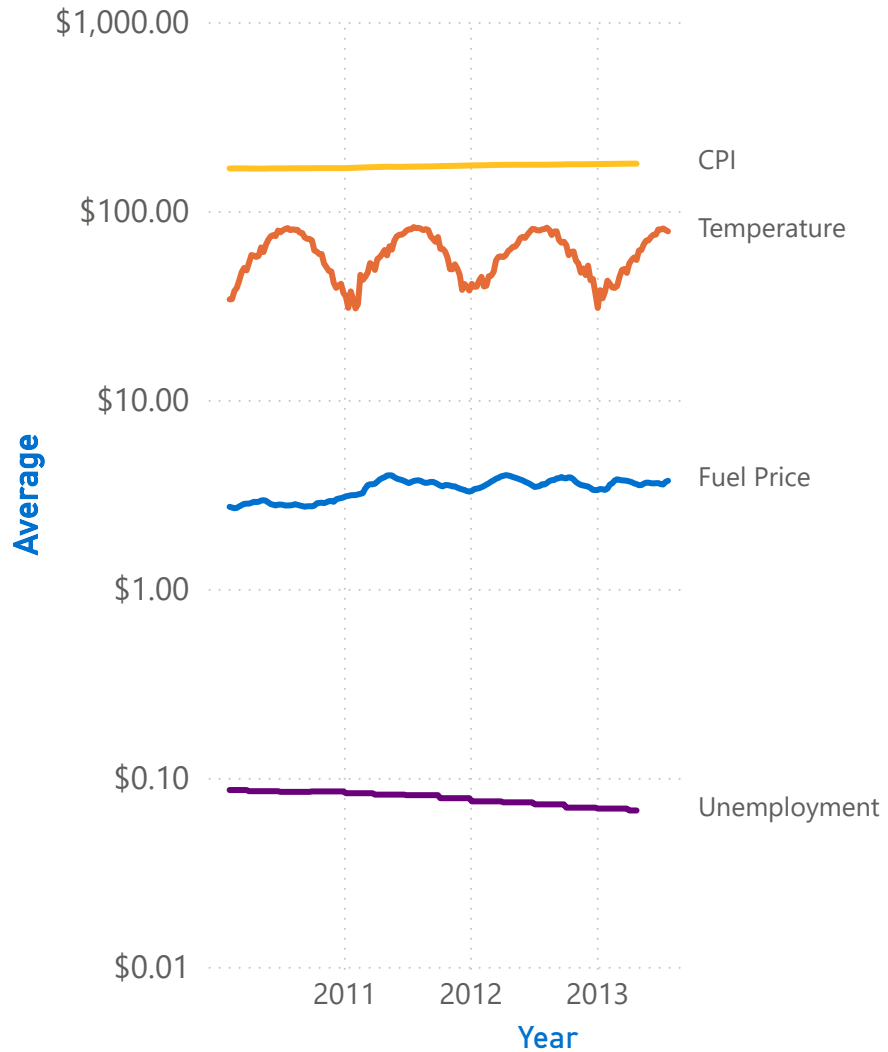
0.07

Average Unemployment

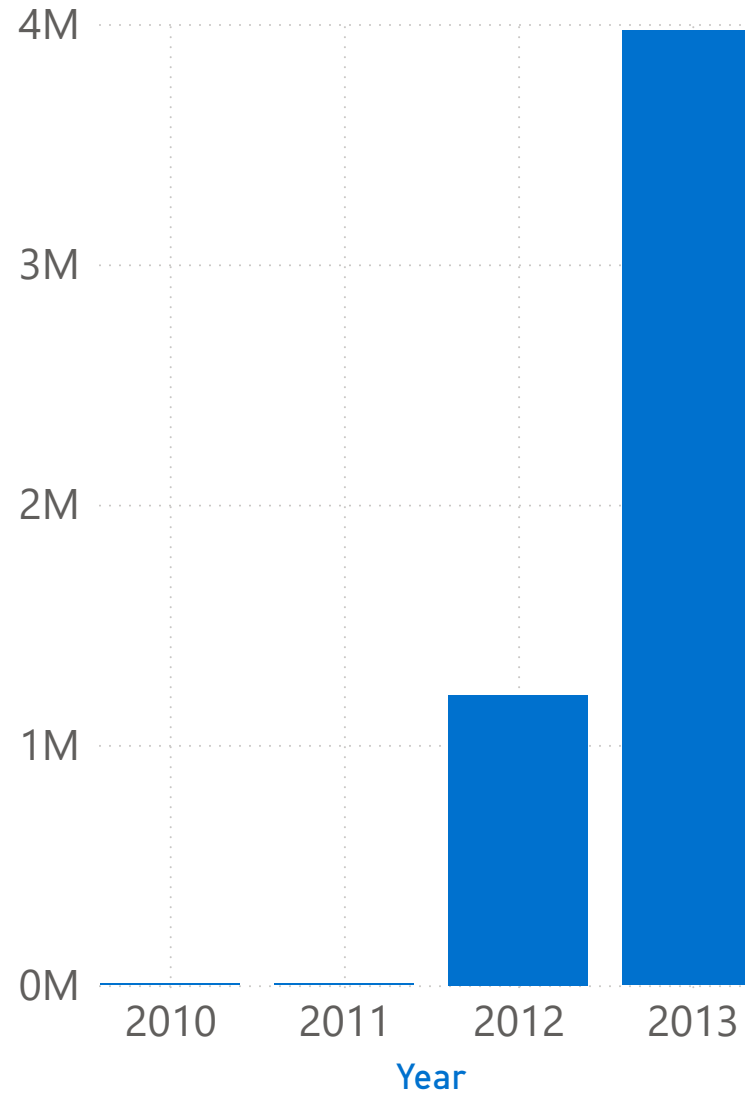
7.14%

% Weeks are Holidays

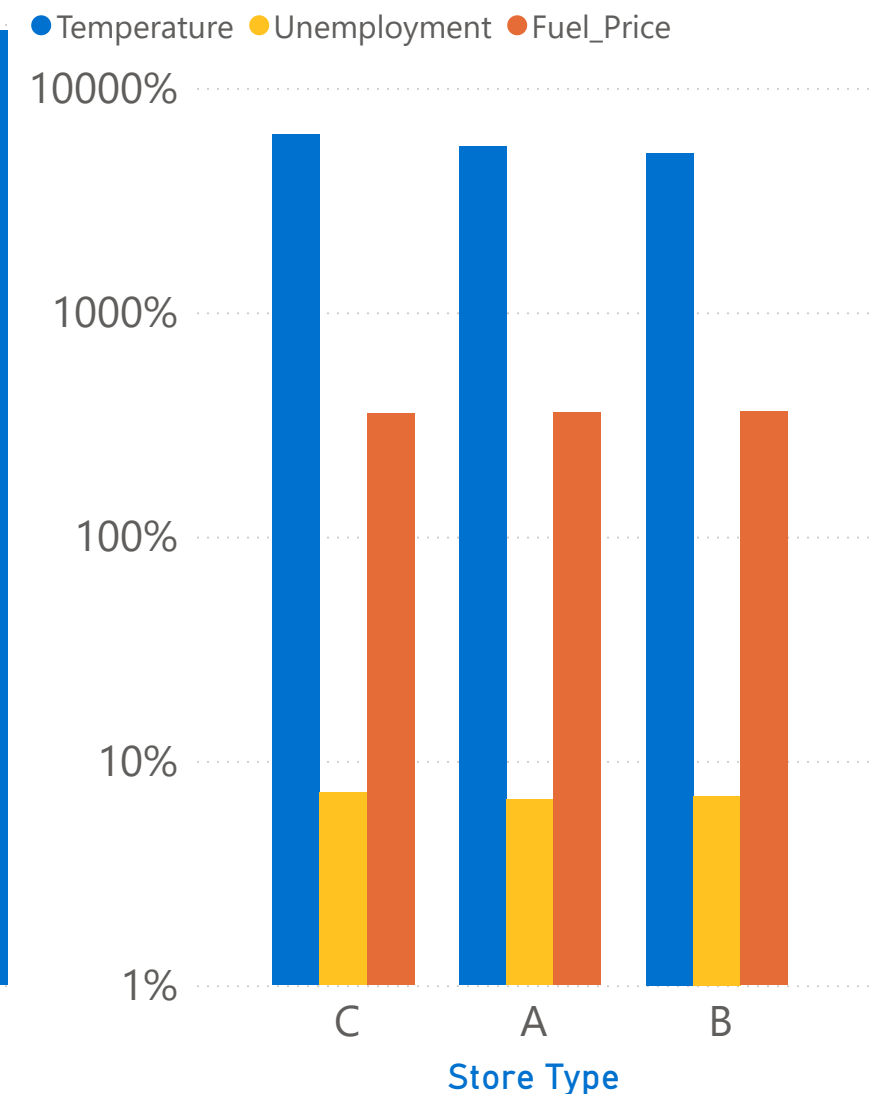
Weekly Trends of Key Economic Indicators (All Stores)



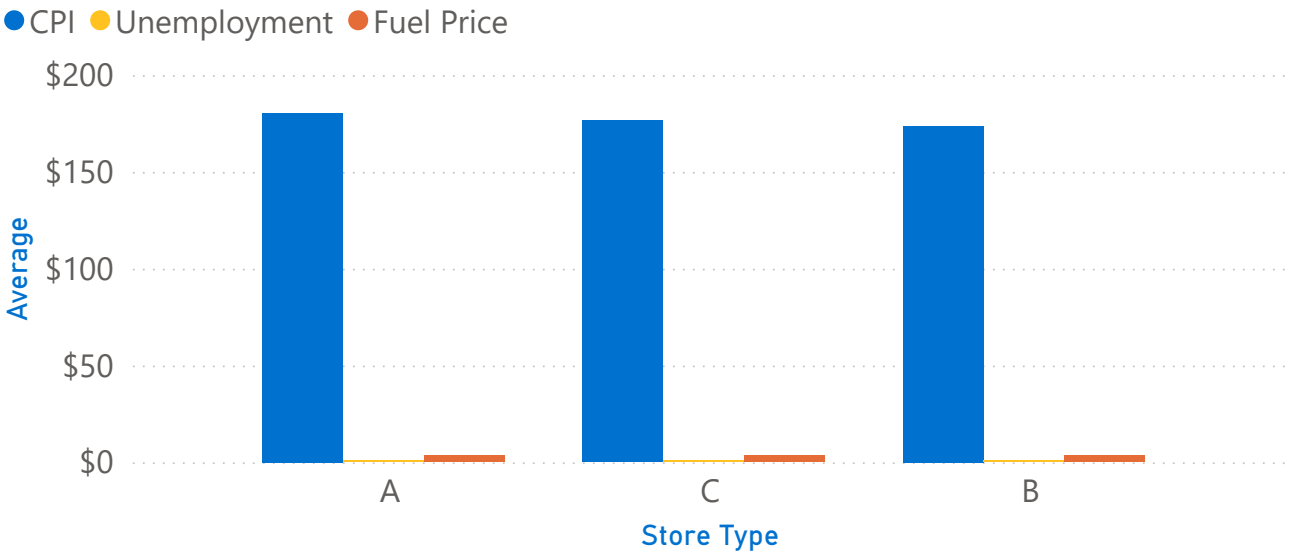
Number of Holiday Weeks per Years



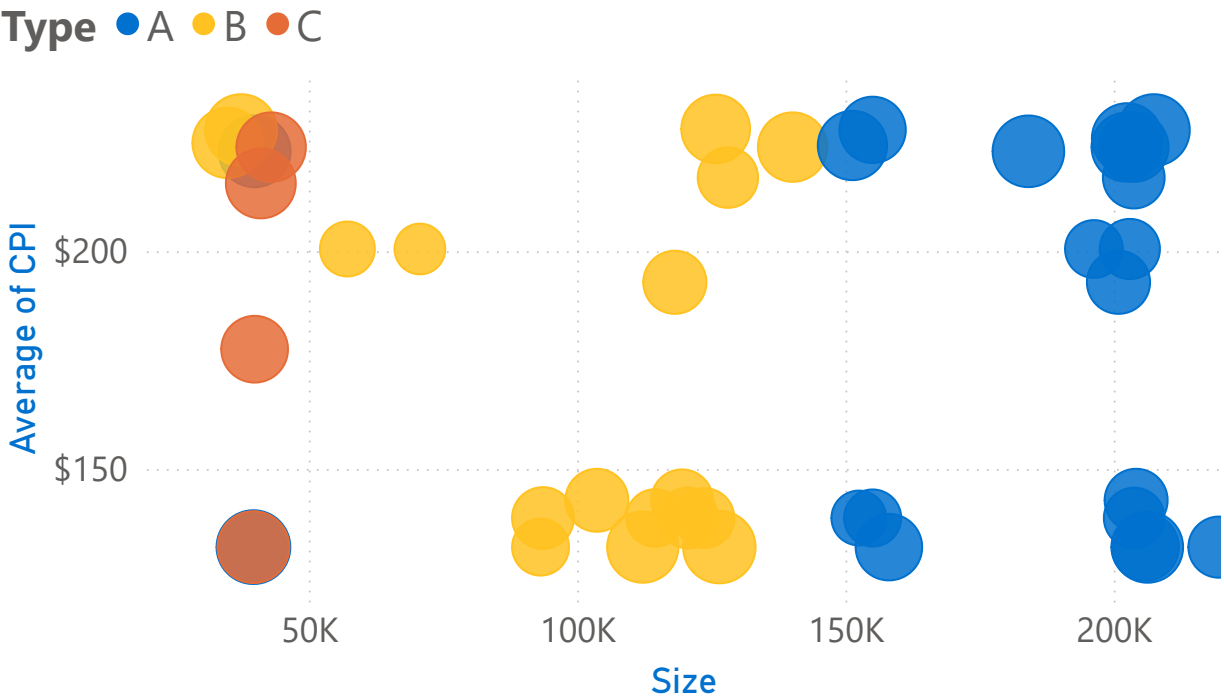
Store Environment by Type



Economic Indicators by Store Type



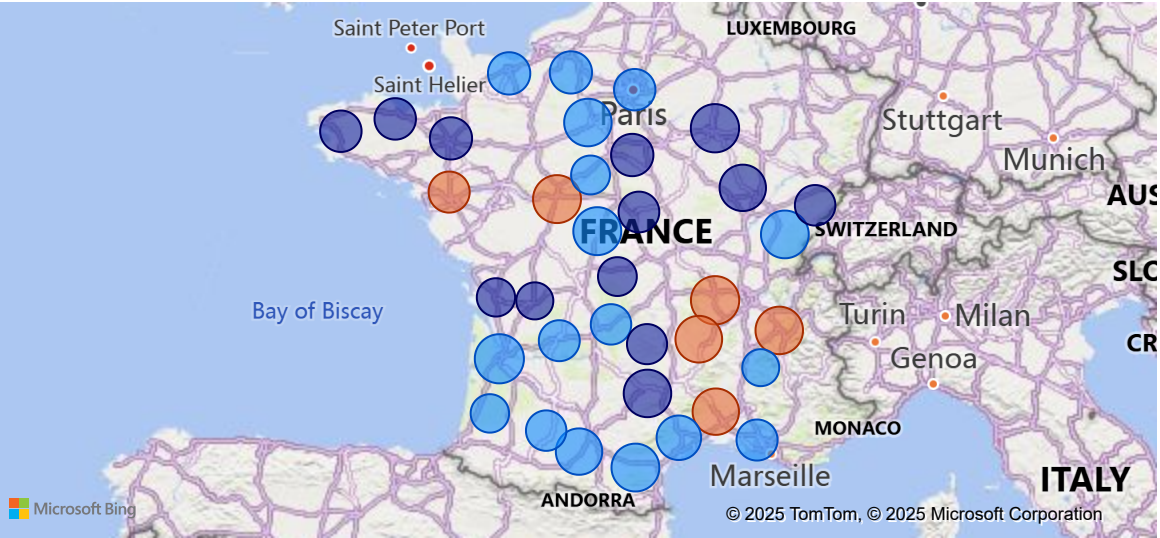
Store Size and Local Economic Conditions



Top and Bottom Performing Store by Macro Conditions

| Store# | Type | Size | Average Temperature | Average Fuel Price | Average CPI | Average Unemployment |
|--------|------|---------|---------------------|--------------------|-------------|----------------------|
| 12 | B | 112,238 | 65.48 | \$3.78 | \$132.03 | 10.01% |
| 28 | A | 206,302 | 65.48 | \$3.78 | \$132.03 | 10.01% |
| 38 | C | 39,690 | 65.48 | \$3.78 | \$132.03 | 10.01% |
| 29 | B | 93,638 | 48.17 | \$3.70 | \$138.72 | 9.00% |
| 43 | C | 41,062 | 62.94 | \$3.40 | \$215.56 | 8.88% |
| 34 | A | 158,1 | 56.61 | \$3.39 | \$132.03 | 8.88% |
| Total | | | 54.51 | \$3.58 | \$177.30 | 6.88% |

Regional Distribution of Store Conditions

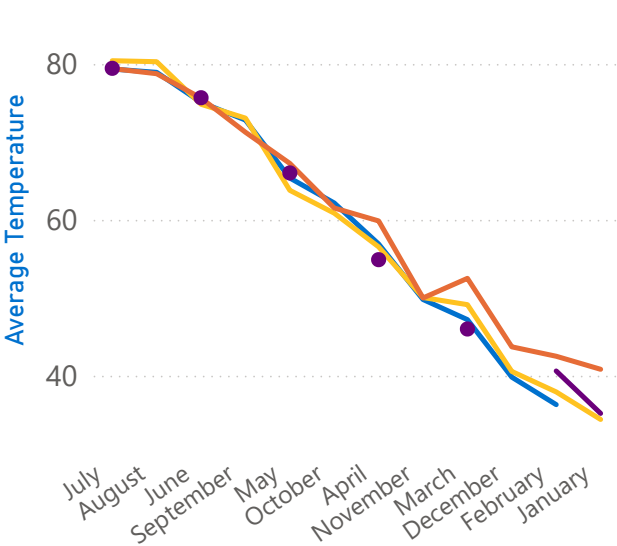


12-Week Forecast: Fuel Price



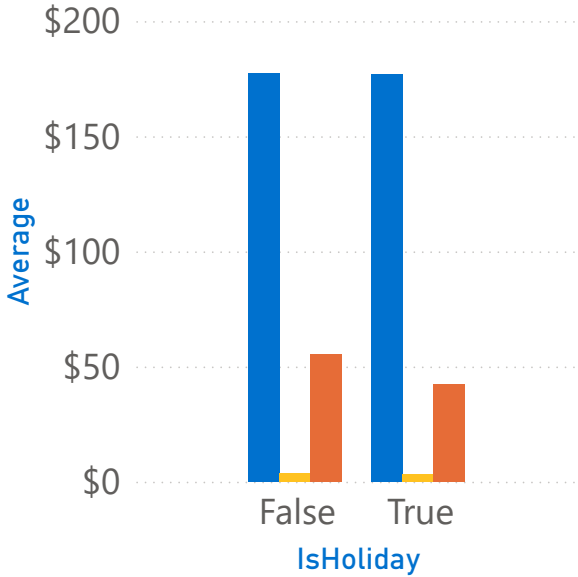
Seasonal Temperature Patterns

Year ● 2010 ● 2011 ● 2012 ● 2013



Holiday vs Non-Holiday Weeks Compariosn

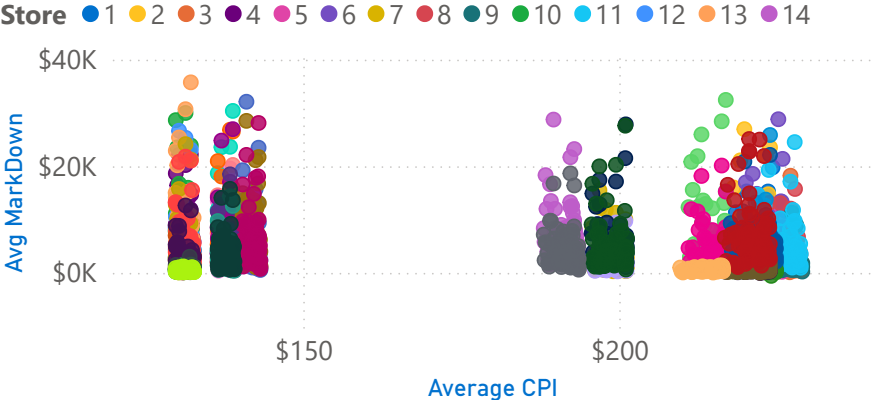
● CPI ● Fuel Price ● Temperature



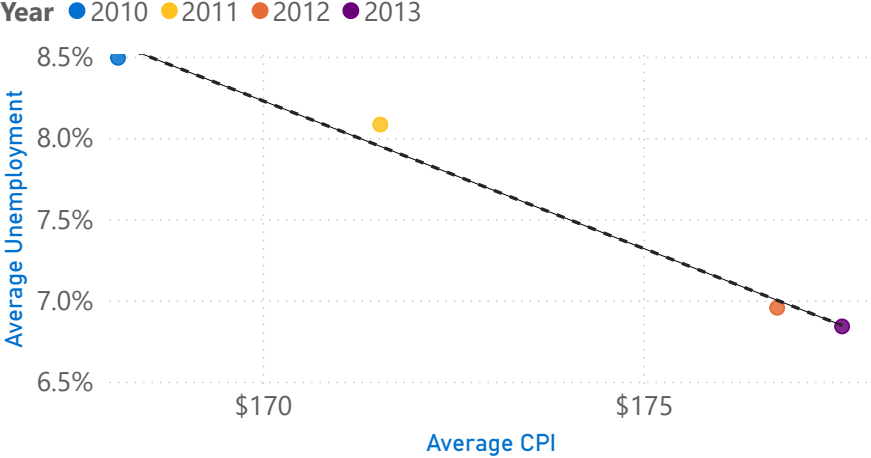
0.12

CPI-Markdown Correlation (r)

Markdowns vs CPI: Inflation and Promotional Intensity



CPI vs Unemployment correlation Over Time



Insights

1. Overview

- a. Average CPI rose ~5% over the observed period, while fuel prices fluctuated sharply mid-2011, hinting at *inflationary pressure*.
- b. Holiday weeks accounted for only ~8% of all periods but align with noticeable increases in *markdown intensity*.

2. Regional

- a. Type A store, typically larger ones, show higher average CPI regions and slightly lower unemployment indication placement in *higher income areas*.
- b. Temperature differences across store types suggest *regional segmentation* in the dataset (southern vs northern)

3. Trends & Correlation

- a. Markdown intensity has a weak negative correlation with CDPI (r= -0.27), implying *fewer discounts* during *inflation spikes*.
- b. Fuel Price forecast shows mild seasonality but no *long term upward trend*.