

**Potential Slides**

**Title Slide**

**Team Members**

**Project Background**

**Our Process – Data Exploration**

**Our Process – Data Cleanup**

**Hypotheses & Terminology**

List of 11 Tickers

Range 2: Two-Day Period from Thursday’s closing price to the following Monday’s closing price.

Range 3: Three-Day Period from Monday’s closing price to the following Thursday’s closing price.

Hypothesis #1 – Considering the eleven S&P sectors together as one group, Range 3 has better average returns than the Range 2.

Hypothesis #2 Considering the eleven S&P sectors individually, Range 3 has better average returns than the Range 2.

Hypothesis #1 (H0) – There is no relationship for average returns when investors buy the beginning buy the Monday close and selling the Thursday close (the 3-day period) for the entire dataset of S&P sectors as one group from year 1/1/2000 through 7/19/2019.

Hypothesis #2 (H0) – There is no relationship in terms for average returns for periods when investors buy the Thursday close and sell the Monday close (the 2-day period) vs. buying the Monday close and selling the Thursday close (the 3-day period) for the same dataset of S&P sectors, but taken as individual tickers from year 1/1/2000 through 7/19/2019.

**Peek at the Initial Data**

**Jupyter Notebook Snapshot**

**Chart/Table** - T Test as a group and T Tests for the individual tickers (p values and t statistics)

**Chart/Table** – 2 Jupyter Notebook Histograms Showing Normal Distribution

**Chart/Table** - Bar Chart by ticker (22 Bars Total) for 2 day period and 3 day period

**Chart/Table** – Introductory Chart Showing Average Returns by Day of the Week by Ticker and Count of Best Days by Ticker

**Chart/Table** - Introductory Line Charts with 11 tickers called MTwPlots

**Our Findings** – The H0 for Hypothesis #1 should be rejected. Evenly allocating across sectors would have produced a much higher return Mo...Th vs.

**Other Considerations** – Examined the data for situations when the market was closed on Monday or Thursday. NaN values generated because dividing by zero. Used the closing prices for the day before, and keeping those data points or tossing them out was not statistically significant. Chose to not smear the data and tossed them out.

What happened with XLRE and XLC which had less data points – statistically no difference.

**Questions/Thank You!**