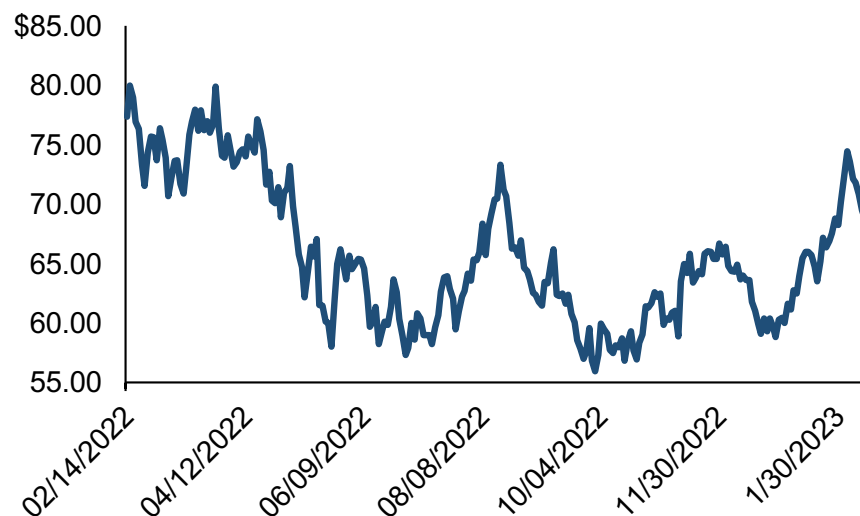




### XRT US Equity | One-Year Price Chart



### Position Details

- SPDR S&P Retail ETF | XRT
- Underlying Price: \$70.32
- Bear Put Spread
- Expiration Date: April 21, 2023

### Equity Derivatives Sector

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## Table of Contents

- I. Product & Position Overview
- II. Macroeconomic Thesis
- III. Risk Analysis
- IV. Technical Bias & Fair Value
- V. Capital Allocation



## I. Product & Position Overview

## Product & Position Overview

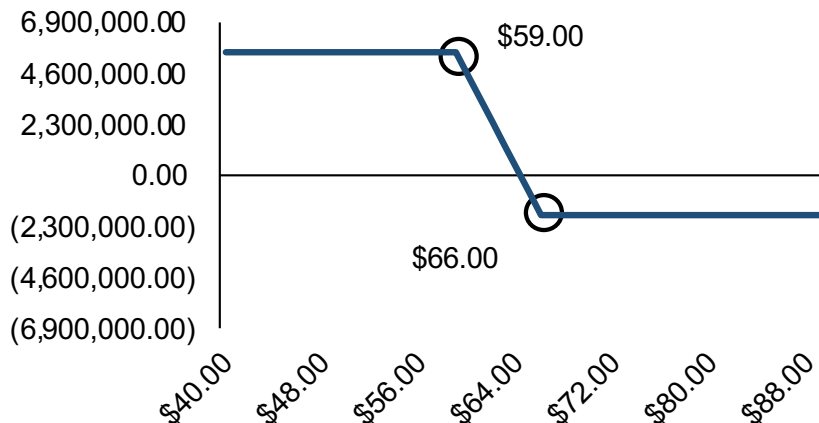
### Product Description

- **SPDR S&P Retail ETF**
  - The SPDR S&P Retail ETF, or XRT, tracks the S&P Retail Select Industry Index, which provides exposure across large, mid, and small cap retail stocks. It holds 94.00 stocks
  - XRT tracks a broad-based, equal weighted index of stocks in the US retail industry
- **Sub-Industry Allocation**
  - Automotive Retail | 20.46%
  - Apparel Retail | 20.37%
  - Specialty Stores | 17.79%

### Trade Breakdown

- **Bear Put Spread**
  - This trade benefits from adverse price movements in the underlying
- **Setup**
  - We Buy – 35.00k OTM \$66.00 Puts | XRT US Equity
  - We Sell – 35.00k OTM \$59.00 Puts | XRT US Equity
- **Expiration**
  - Date: April 21, 2023

### Payoff Diagram



### Exit Strategy & Potential Hedge Strategy

- **Bull Base & Bear Case**
  - **\$59.00 / \$60.50 / \$66.00**
  - Breakeven – \$64.29
- **Methodology**
  - The bull case and base case target would represent a respective ~16.00% and ~6.00% decrease in the ETF
- **Hedge Strategy**
  - If the underlying ETF increases in price, the Sector will look to reverse trade

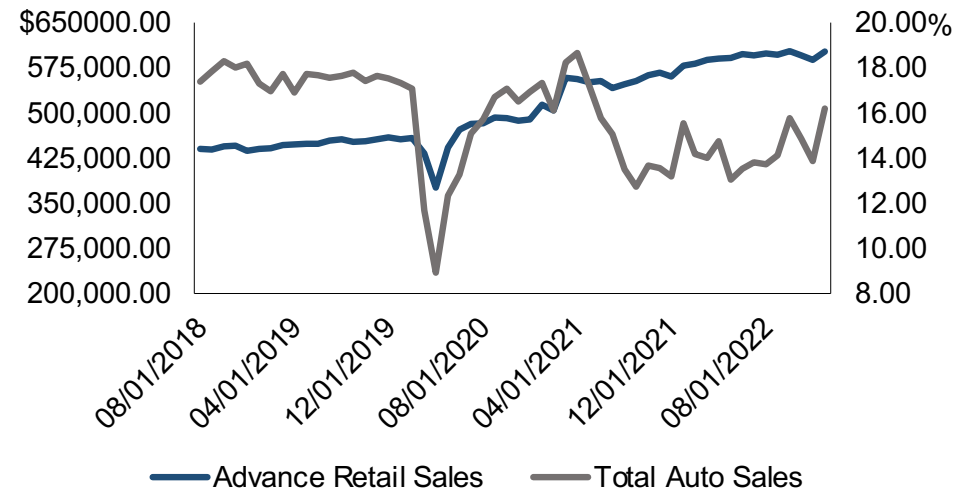
## II. Macroeconomic Thesis

## Macroeconomic Thesis

### Macroeconomic Summary

- **Slowing Wage Growth and Continuing Layoffs**
  - The Bureau of Labor Statistics reported U.S. hourly wage growth decreased in January to 4.40% down from 4.80% last year indicating a cutback in employee earnings
  - The forecasted median expected growth in household income declined by 1.30% to 3.30% in the survey, the largest monthly drop going back almost 10.00 years
  - Two top holdings, Carvana and Wayfair, have announced employee layoffs in effort to cut back on expenses and decrease the amount of accumulating company debt
- **Decreasing Automotive and Apparel Sales**
  - Sales numbers for each class of cars are expected to see double digit decreases. Compact SUV's and crossovers are expected to have the smallest decrease at about 17.00%
  - The average new auto loan rate was 8.41% at the beginning of this year, up from 5.30% in January 2022.
  - McKinsey reported that they expect inflation and depressed consumer sentiments to continue into this year, driving declining growth rates in the Apparel Industry
- **Decreasing Consumer Spending**
  - S&P Global Market Intelligence economists predict consumer spending growth to be 0.50% in 2023, translating to a 0.10% decrease when accounting for inflation
  - According to economists at Morgan Stanley, one-third of consumers said that they were planning on delaying larger purchases, like automobiles and technology, for the future

### Advance Retail Sales vs. Total Auto Sales



### Market Pros & Cons

- The Fed continues to increase interest rates further into the year
- U.S. possibly enters a recession
- U.S. inflation continues to moderate throughout 1H2023
- Minimum wage has increased in 23 states and D.C.



## III. Risk Analysis

## Risk Analysis

### Directional & Magnitude Risk

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- **Delta Analysis**

- The trade has a Delta value of (0.1468)
  - Theoretically, for every \$1.00 change in the underlying ETF, the options contracts will gain or lose \$0.1468

- **Gamma Analysis**

- The trade has a Gamma value of 0.0126
  - The trade has a very low Gamma value because the trade consists of one long put and one short put, the net delta changes very little as the stock price of the underlying changes and time to expiration changes

### Implied Volatility Risk

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- **Vega Analysis**

- The trade has a Vega value of 0.0440
- The implied volatility of the trade is 33.69%
- Vega is positive for long options while it is negative for short options, regardless of whether it is a call or put
- Since this trade consists of one long put and one short put, the volatility offsets each other make the Vega value relatively small. The long puts leg is larger than the short puts leg, making the Vega value positive

### Time Risk

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- **Theta Analysis**

- The trade has a Theta value of (0.0106)
- Since this trade is long one option and short another, the overall effects of time decay will offset each other which is why this trades Theta is relatively small
- This trade has a negative Theta because long puts have a negative Theta and short puts has a positive Theta.
- The overall Theta is negative when OTM however, when the underlying price is below the breakeven price, Theta is positive meaning time decay benefits the position

### Interest Rate Risk

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- **Rho Analysis**

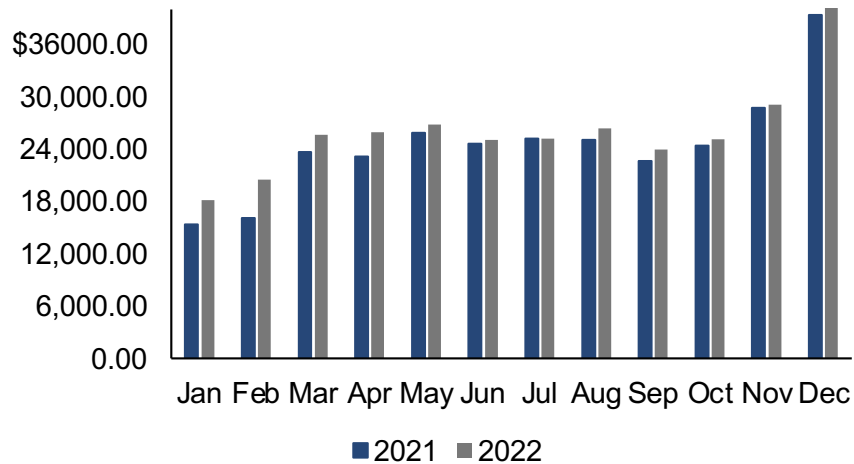
- The trade has a Rho value of (0.0296)
- Rho is negative because the trades premium paid is larger than the premium received. Therefore, an increase in the risk-free rate hurts this trade because the opportunity to invest in a risk-free asset goes away
- Rho will likely remain the same throughout the trade. Rho trends closer to 0.00 as time moves toward expiration and further from 0.00 as the put becomes deeper ITM



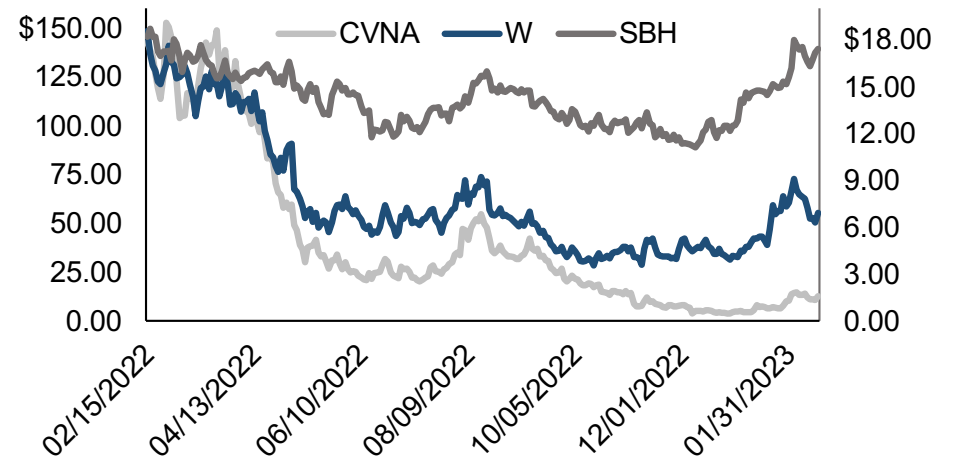
#### IV. Technical Bias & Fair Value

## Technical Bias & Fair Value

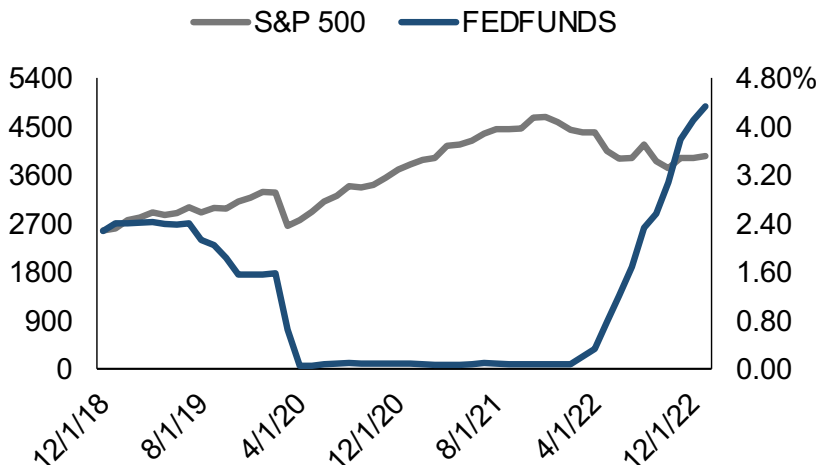
**Retail Sales: Clothing and Clothing Accessory Stores 2021 vs. 2022**



**One-Year Price Chart CVNA vs. SBH vs. W**



**Federal Funds Rate vs. S&P 500**



### Synopsis

- Clothing and clothing accessory retail sales have correlated over the past two years. Sales spiked during the holiday season and decreased at the beginning of the year.
- Each of XRT's top three holdings are down Y/y. CVNA is down (90.47%), SBH down (0.64%) and W down (57.71)%
- Following a time period of near zero interest rates during the covid-19 pandemic, the S&P 500 was in an expansionary state. As the Fed has increased rates eight times, the S&P 500 has entered a bear market and will continue to contract with more rate hikes in the future



## V. Capital Allocation

## Capital Allocation

