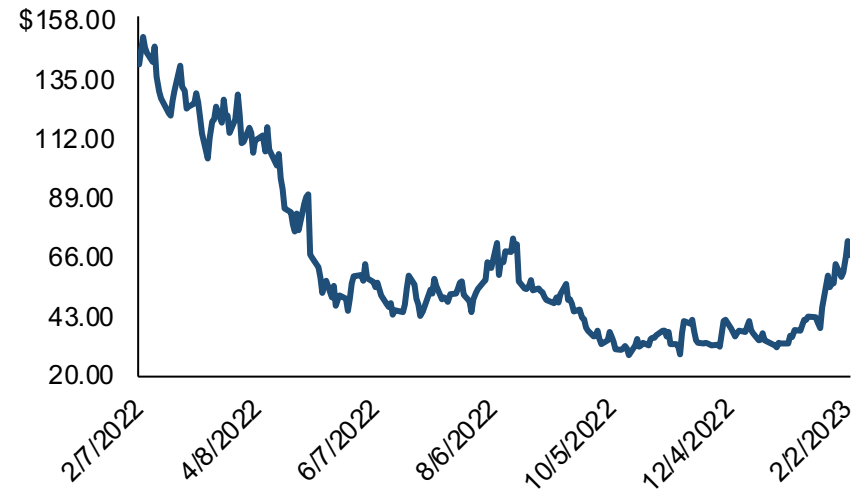


W US Equity | One-Year Price Chart



Position Details

- Wayfair Inc. | W US Equity
- Underlying Price: \$67.13
- Put Ratio Spread
- Expiration Date: May 19, 2023

Equity Derivatives Sector

Associate

Trenton Jones
twjones20@gmail.com

Analyst

Maisie Hanson
maisiehanson1016@gmail.com

Analyst

Zach Ryan
zachryan1000@gmail.com

President

Anthony Bruno
anthonybruno2186@gmail.com

Vice President

Julia Petrova
julia.petrova6100@gmail.com

Chief Investment Officer

Phil Sullivan
philsullivan10@gmail.com

Table of Contents

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



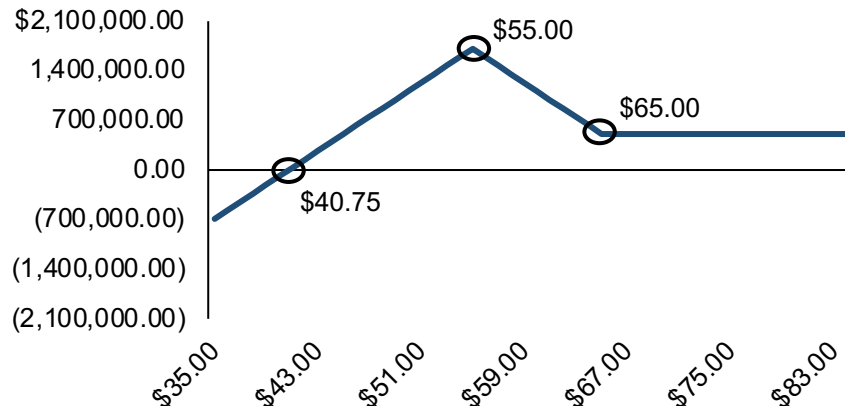
I. Product & Position Overview

Product & Position Overview

Product Description

- **Wayfair Inc.**
 - Wayfair Inc. (W) is an online home furnishing retailer that operates in the United States and other European countries
 - It owns brands such as Joss & Main, AllModern, and Perigold
 - The company is led by CEO, Niraj Shah. They employ 16,900 people and have a market capitalization of \$7.20 bn
- **Top Four Countries by Revenue**
 - United States | 82.10%
 - Germany | 8.30%
 - United Kingdom | 6.00%
 - Canada | 3.60%

Payoff Diagram



Trade Breakdown

- **Put Ratio Spread**
 - The strategy is neutral to slightly bearish. This trade benefits from small, adverse price movements in the underlying asset
- **Setup**
 - We Buy – 1.20 k ATM \$65.00 Puts | W US Equity
 - We Sell – 2.40 k OTM \$55.00 Puts | W US Equity
- **Expiration**
 - Date: May 19th, 2023

Exit Strategy & Potential Hedge Strategy

- **Bull Base & Bear Case**
 - **\$55.00 / \$45.00 & \$65.00 / \$36.00**
- **Methodology**
 - The Sector believes that the price action of W will remain within the range of \$45.00 and \$65.00 with the opportunity of reaching maximum profit at \$55.00
- **Hedge Strategy**
 - If W trades above the \$65.00 strike, the Sector will maintain this position. However, if W falls below \$41.00, the Sector will look to reverse trade in order to minimize losses



II. Macroeconomic Thesis

Macroeconomic Thesis

Macroeconomic Summary

• Low Housing Inventory and Sales

- In December 2022, U.S. home prices were up 1.40% y/y, selling for a median price of \$388,472, and on average, the number of homes sold was down 36.10% y/y
 - According to the National Association of Realtors (NAR), the supply of homes in the U.S. reached a record low of just 1.60 months in January 2022
- Existing home sales fell 1.50% m/m to an adjusted annual rate of 4.02 million units, the lowest level since November 2010, marking the eleventh straight month of declines

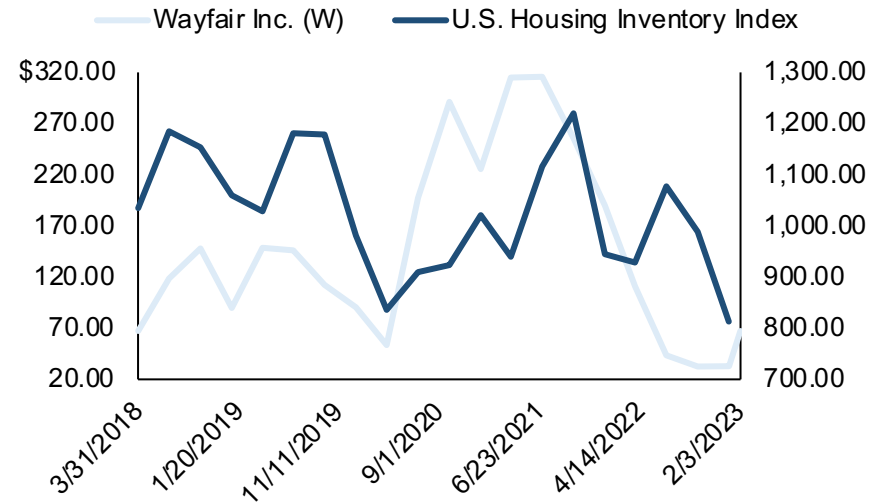
• Decrease in Discretionary Consumer Spending

- The median expected growth in monthly overall household spending for 2023 measured 4.00% in December, down from 4.40% in August and the lowest print since April 2021
 - Advanced retail sales declined 1.10% in December 2022, marking the second consecutive decline in sales and the third month of falling sales in 4Q2022
- In a recent study, it stated the chance of consumers buying an appliance or electronics product in the next four months increased while it declined for furniture and home repairs

• Neutral Short-Term Financial Outlook

- Wayfair Inc. (W) laid off 1.75 k or 10.00% of its employees on January 20, 2023, following a 5.00% layoff last August
 - They are projected to save \$1.40 bn in annualized costs leading to Wayfair Inc. (W) breaking even on net income by Q42023
- Wayfair Inc. (W) ended Q32022 with more than \$3.00 bn of long-term debt compared to a \$731.00 mm cash position

Wayfair Inc. vs. U.S. Housing Inventory Index | Five-Year Chart



Market Pros & Cons

- Wayfair Inc. Continues to Lose Users at a Steady Rate
- The 30.00-Year Fixed Mortgage Rate Remains Elevated
- Labor Market Loosens, Causing Economy to Avoid a Recession
- Wayfair Inc. Unable to Raise Capital After Using Cash Reserves



III. Risk Analysis

Risk Analysis

Directional & Magnitude Risk

- **Delta Analysis**
 - The trade is long Delta with a value of 0.1537
 - For every \$1.00 change in the underlying, the options contract will gain or lose \$0.154
 - The \$55.00 put has a positive delta, while the \$65.00 put has a negative delta
- **Gamma Analysis**
 - This trade has a negative Gamma of (0.0068)
 - High volatility benefits the long put while hurting the short put, resulting in a small Gamma value

Implied Volatility Risk

- **Vega Analysis**
 - The trade is short Vega with a value of (0.1151)
 - Implied volatility input for the trade is 91.53%
 - Vega is positive for long options and negative for short options, regardless of whether each option is a call or put
 - This trade consists of a two short puts and a long put, meaning that the value of the short positions is greater than that of the long position. Therefore, the overall Vega value of the trade is slightly negative, leading to the trade benefiting from decreases in implied volatility

Time Risk

- **Theta Analysis**
 - The trade is long Theta with a value of 0.0536
 - Theta decay benefits the short leg of this trade while hurting the long position, resulting in a net long Theta value. As time till expiration decreases, the probability of the short puts landing ITM increases, adding to the value of the trade
 - Therefore, Theta will be closest to 1.00 when the underlying decreases to \$55.00 per share

Interest Rate Risk

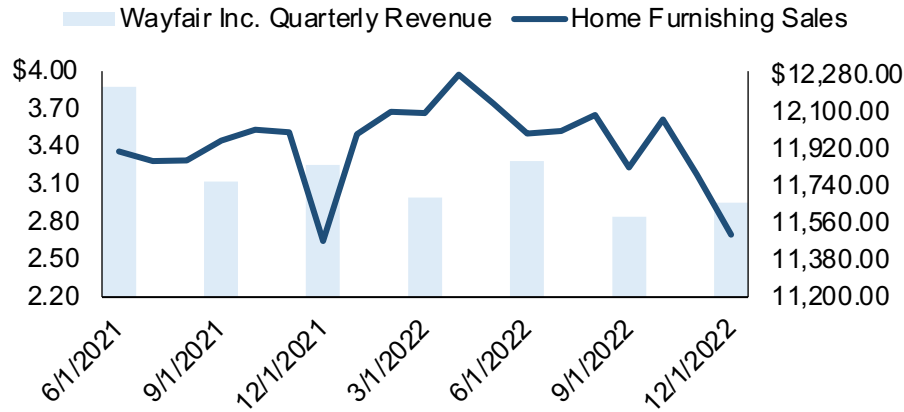
- **Rho Analysis**
 - The trade is long Rho with a value of 0.0549
 - The value of put options tends to decrease when interest rates increase. This options strategy consists of two short puts and one long put, a net short trade. This causes premiums to decrease in a rising interest rate environment
 - The Sector is net taker in this trade since the premiums paid are less than the premiums received. Therefore, an increase in the risk-free rate allows the Sector to invest in other assets, yielding higher returns for the portfolio



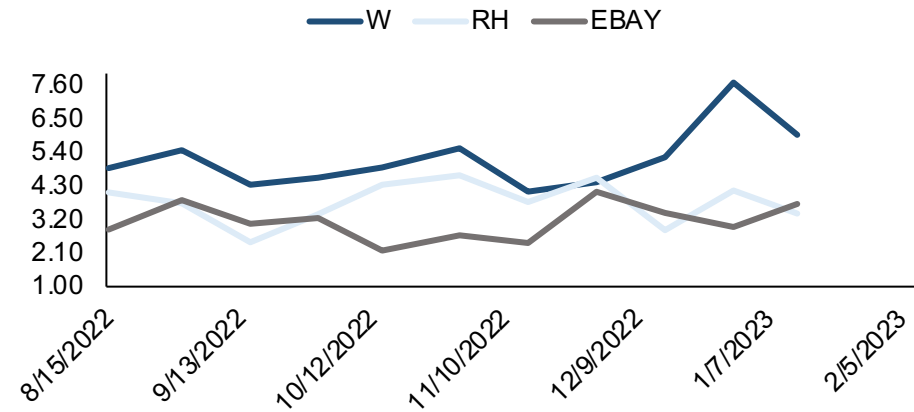
IV. Technical Bias & Fair Value

Technical Bias & Fair Value

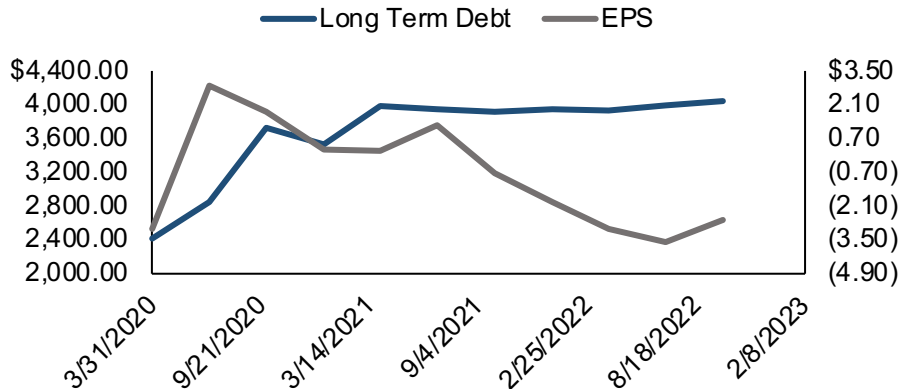
Quarterly Revenue (bn) vs Home Furnishing (mm) | 18.00 Month Chart



W vs RH vs EBAY Short Interest Ratio | Six-Month Chart



Wayfair Inc. Long Term Debt vs EPS | Three-Year Chart



Synopsis

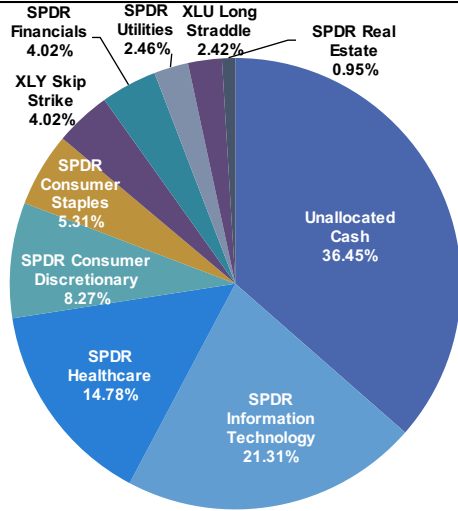
- In 3Q2022, Wayfair Inc.'s total net revenue of \$2.80 bn decreased \$281.00 mm, down 9.00% y/y, while furniture and home furnishing sales in the U.S. fell 2.50% m/m in December 2022
- In January 2023, Wayfair Inc. has a short interest ratio of 5.99, as compared to Restoration Hardware and eBay, which have short interest ratios of 3.40 and 3.73 respectively
 - The short interest spread between Wayfair Inc. and Restoration Hardware is currently the largest in seven months
- In a FactSet report, it states Wayfair Inc.'s earnings per share decreased 167.60% y/y, while it increased long term debt 2.75% y/y
 - Its 2025 maturity convertible debt is trading at a 15.00% yield



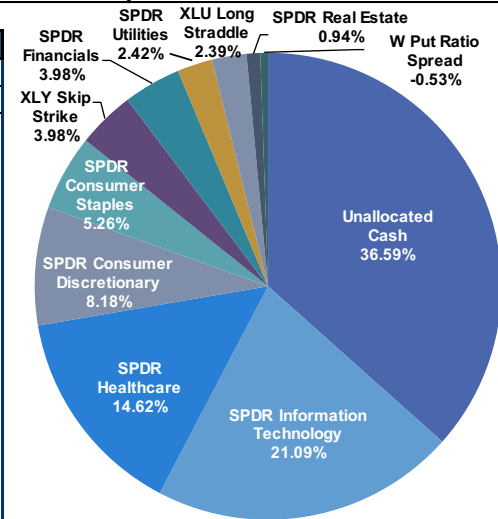
V. Capital Allocation

Capital Allocation

Current Portfolio Allocation

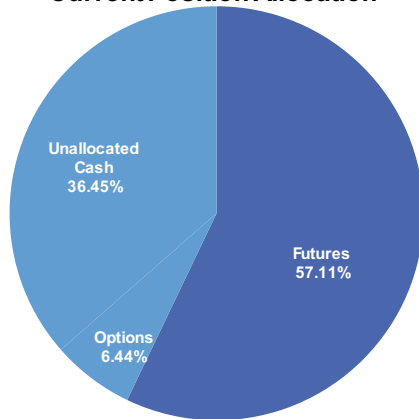


Proposed Portfolio Allocation

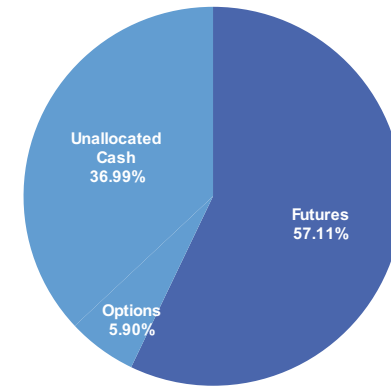


Transaction Summary		
Ticker	Position Change	
	Contracts	Allocation
SPDR Consumer Discr	0	\$0.00
SPDR Consumer Stapl	0	\$0.00
SPDR Financials	0	\$0.00
SPDR Healthcare	0	\$0.00
SPDR Information Tech	0	\$0.00
SPDR Real Estate	0	\$0.00
SPDR Utilities	0	\$0.00
XLU Long Straddle	0	\$0.00
XLY Skip Strike w Puts	+ 0	\$0.00
W Put Ratio Spread	0	(\$614,400.00)
Allocation Change		(\$614,400.00)

Current Position Allocation



Proposed Position Allocation



Benchmark Allocation

