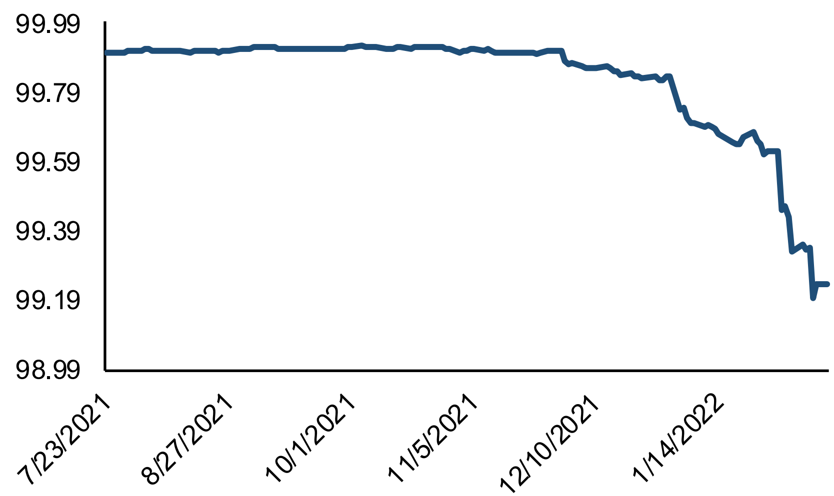
Fed Fund 30-Day, May22 | 6-Month Price Chart



Position Details

- Fed Fund 30-Day, May22 | FFK2 Comdty
- Underlying Price: 99.27
- Short Strangle
- Expiration Date: May 3, 2022

Interest Rate Products Sector

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I. Product & Position Overview

Product & Position Overview

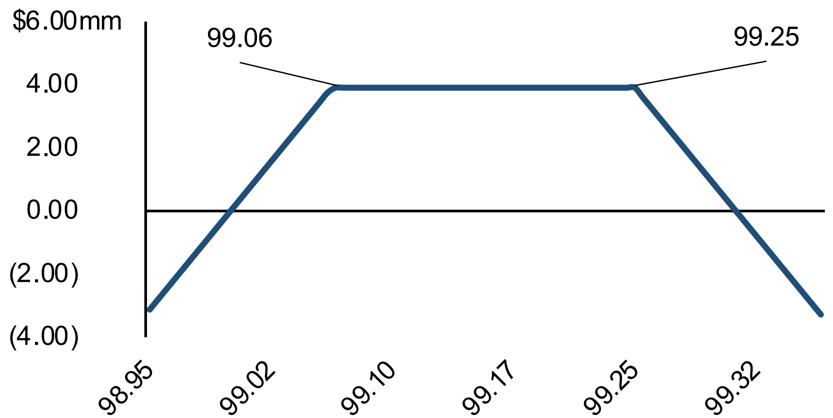
Product Description

- **The Federal Reserve**
  - The Fed is the central bank of the United States created to provide a safe and stable monetary and financial system
  - The Fed's main role is the dual mandate – to maximize employment and keep prices stable
  - The FOMC is the monetary policy decision-making body for the Fed and meet eight times a year, about every six weeks
- **Effective Federal Funds Rate**
  - The effective federal funds rate is the overnight interest rate that depository institutions charge each other on excess reserves held at the Fed

Trade Breakdown

- **Short Strangle**
  - A short strangle is performed by shorting a put and a call with the same expiration date, with the strike price of the put lower than that of the call
  - Will benefit from low or limited price fluctuations
- **Setup**
  - We Sell – 15.00 k ITM 99.25 Calls | FFK2C
  - We Sell – 15.00 k OTM 99.06 Puts | FFK2P
- **Expiration**
  - Date: May 3, 2022

Payoff Diagram



Exit Strategy & Potential Hedge Strategy

- **Bull Base & Bear Case**
  - **99.06 – 99.25** / **99.03 or 99.30** / **98.95 or 99.35**
  - Breakeven – 99.00 or 99.31
- **Methodology**
  - The price target represents a 25.00 bp range, from 75.00 bp to 100.00 bp total rate hikes through the second meeting
- **Hedge Strategy**
  - The trade must be held for 75 days until expiration to collect max profit. If the price increases substantially past 99.31, we will purchase calls or short an increased number of puts

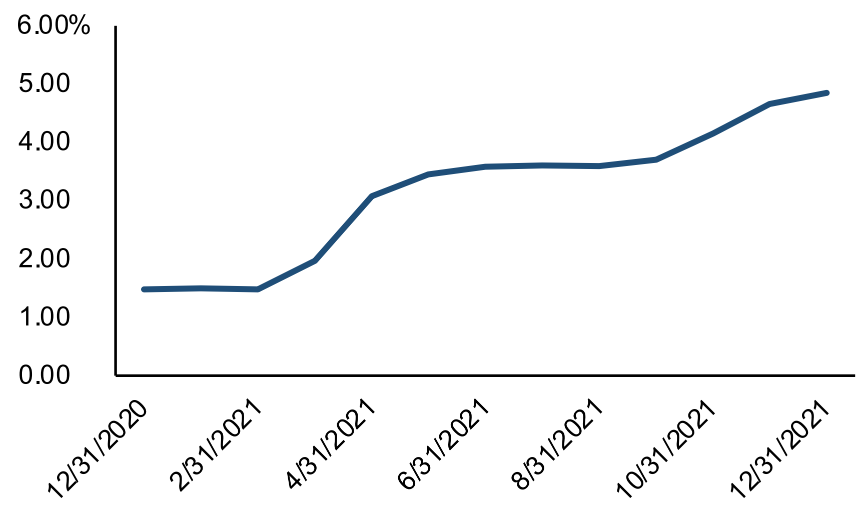
I. Macroeconomic Thesis

Macroeconomic Thesis

Macroeconomic Summary

- **Persisting Inflation**
  - Inflation reached a four-decade high in January 2022 at 7.50% y/y, over previous economic forecasts of 7.20%
    - Core CPI hit 6.00% in January, the largest annual increase since 1982
- **Increasingly Hawkish Outlook From the Fed**
  - The Fed is under a microscope from investors and institutions with a ripple effect on market sentiment
    - Predictions for sooner and larger rate increases through 2022 consistently gain validity
  - Some Fed officials have suggested the possibility of an emergency intermeeting hike for the first time since 1994, as well as a 50.00 to 75.00 bp rate hike in March
    - St. Louis Fed President, James Bullard, claimed the Fed needs to be more aggressive in taming inflation, moving prices
- **Recovering Labor Market**
  - Daily Covid-19 cases declined by 50.00% in late January as health officials noted a peak in global Omicron cases
  - The Labor Force Participation Rate reached a pandemic-era high 62.20% signaling optimism for the labor market
    - Covid-19 aid is set to end in September, which should continue this trend in the jobs market
  - There were 223.00 k jobless claims in the most recent report, marking the lowest level in five weeks

U.S. Core PCE | 12-Month Chart



Market Pros & Cons

- Inflation Continues to Beat Forecasts
- The Fed Remains Notably Hawkish
- Reduced Size and Speed of Rate Hike Schedule
- Reversal in Recent Strong Labor Market Trend

I. Risk Analysis

Risk Analysis

Directional & Magnitude Risk

- **Delta Analysis**
  - The trade has a Delta value of (0.7226)
  - The trade benefits from bearish price movements in the underlying, up to the strike price of the other leg
- **Gamma Analysis**
  - The trade has a Gamma value of (2.2812)
    - The trade has a very large (negative) Gamma, due to the underlying price fluctuating by such small increments, a $1.00 price change in either direction would cause either leg to be drastically ITM.

Time Risk

- **Theta Analysis**
  - The trade has a Theta value of 0.0021
    - The trade has a small, but positive Theta because one leg is ITM while the other is OTM
    - As time to expiration decreases, the trade value increases over time

Implied Volatility Risk

- **Vega Analysis**
  - The trade has a Vega value of (0.1986)
    - The trade loses value as implied volatility rises
    - In order to see max profit, the underlying must stay within a range, therefore low volatility is beneficial
    - Implied Volatility: 0.43%

Interest Rate Risk

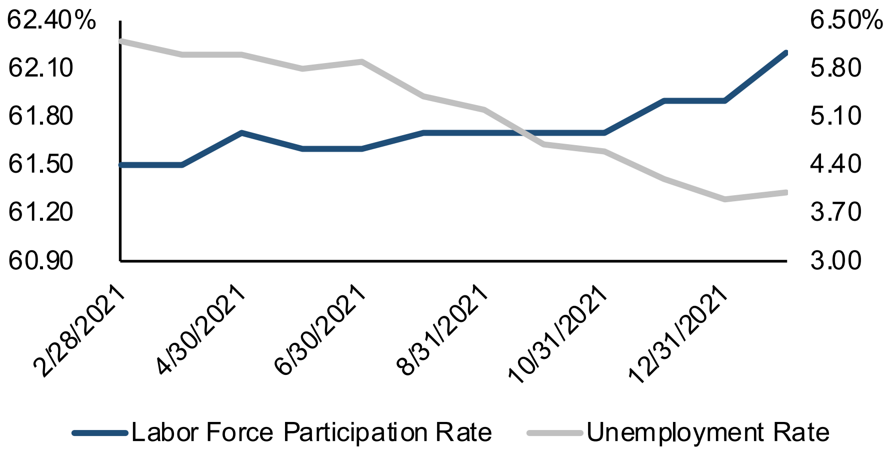
- **Rho Analysis**
  - The trade has a Rho value of 0.0005

    As interest rates increase, the value of our position will increase in value due to being a net receiver

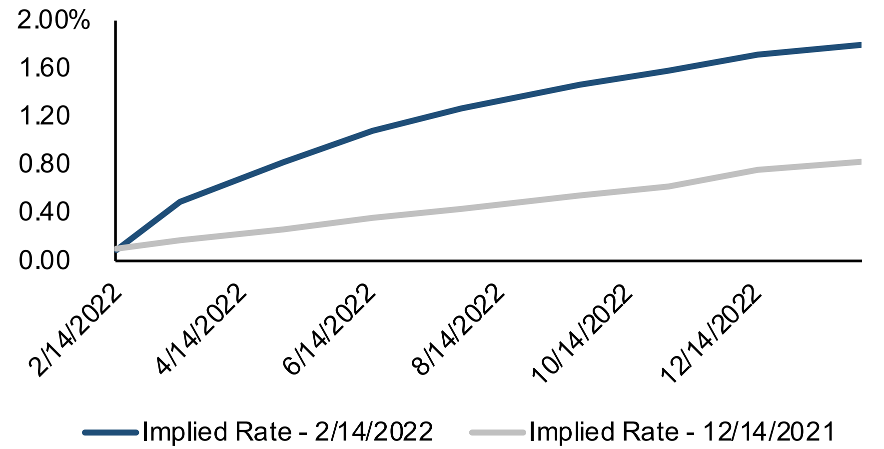
I. Technical Bias & Fair Value

Technical Bias & Fair Value

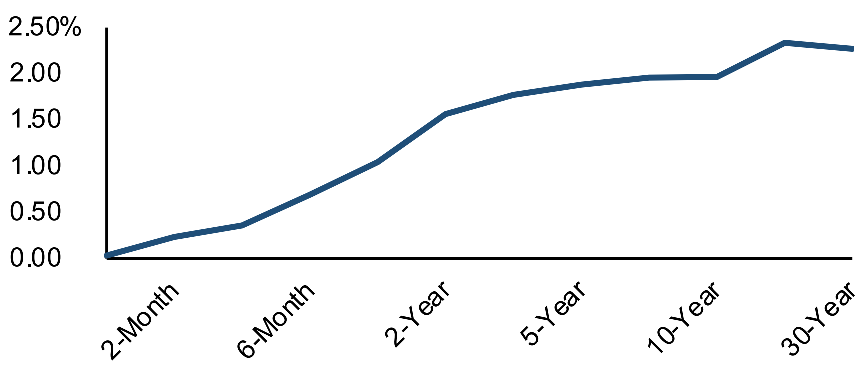
U.S. LFPR vs. Unemployment Rate | 12-Month Chart



WIRP Federal Funds Rate 2/14/2022 vs. 12/14/2021 | 12-Month Chart



U.S. Treasury Security Yield Curve | 1-Month T-Bill to 30-Year T-Bond



Synopsis

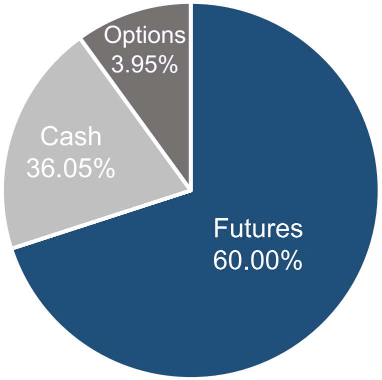
- The Labor Force Participation Rate has steadily increased over the past 12 months alongside waning unemployment
  - Both show a substantial job market recovery, allowing the Fed to focus on price stability
- The World Interest Rate Probability (WIRP) function implies hawkish projections, pricing in sooner and larger rate increases
- The yield curve is a valuable tool to look at market sentiment and accurate indicator used to predict recessions
  - The yield curve has inverted before each recession in the past 50 years, and the current steepness suggests optimism

I. Capital Allocation

Capital Allocation

Allocation Breakdown & Portfolio Implications

- The sector looks to collect max profit from this trade at about $3.90 mm from the premiums collected
  - Note: No money was spent to enter long positions
- The Sector currently has one other Fed Funds Futures option active, but with the rate hike environment, the Sector looks to take advantage and maximize profits.
- The Sector plans to keep a close eye on Fed Minutes, as volatility spikes are seen post-comments from Fed officials
- The Sector is confident that the Fed will remain hawkish or even more so in the future, allowing our trade to be profitable.



Portfolio vs. Benchmark Allocation Weights