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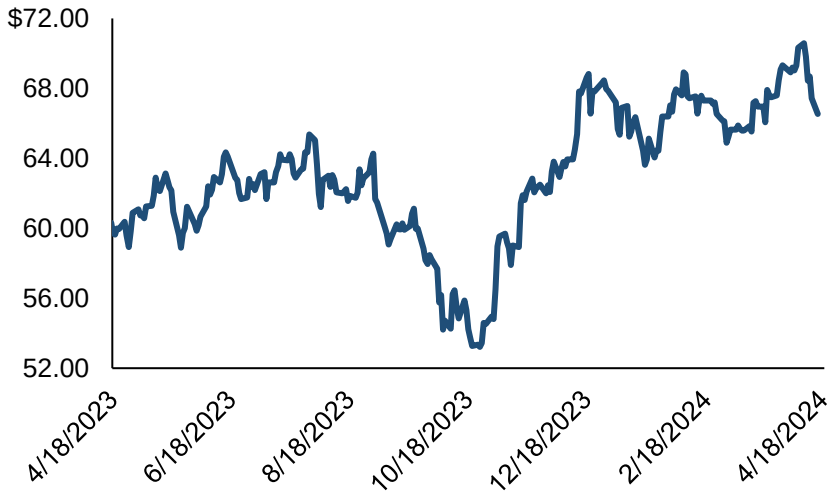
PENNSYLVANIA STATE UNIVERSITY

iShares MSCI Mexico ETF | One-Year Price Chart



Position Details

- iShares MSCI Mexico ETF | EWW
- Underlying Price: $65.20
- Bull Call Spread
- Expiration Date: September 20, 2024

Index Derivatives Sector

Associate
Samuel Arrage
sarrage18@gmail.com

Associate
Sid Anil
sidanil2004@gmail.com

Analyst
Alex Micca
alexmicca04@gmail.com

Analyst
Cole Woolard
colewoolard05@gmail.com

President
Phil Sullivan
philsullivan10@gmail.com

Vice President
Owen Perry
owenperry0429@gmail.com

Chief Investment Officer
Adi Wodeyar
adiwodeyar@gmail.com

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I. Product & Position Overview

Product & Position Overview

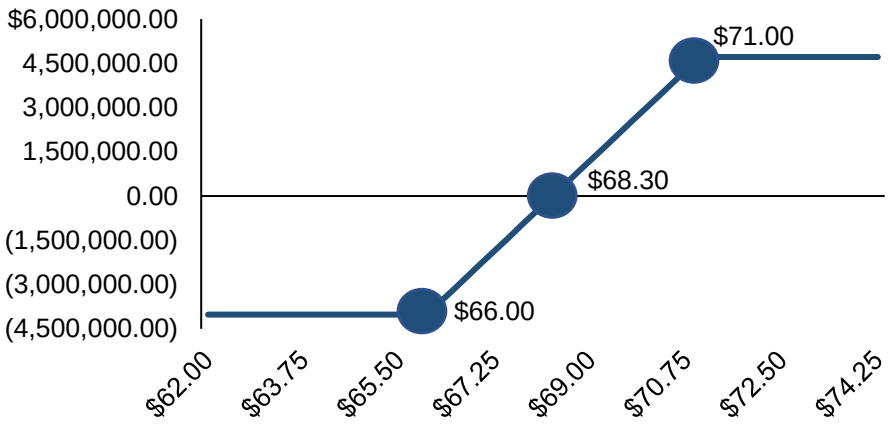
Product Description

- **iShares MSCI Mexico ETF**
  - The iShares MSCI Mexico ETF seeks to track the investment results of a broad-based index composed of Mexican equities.
  - Sector Weightings: Consumer Staples (31.83%), Financials (21.12%), Materials (14.37%), Industrials (13.01%), Communications (9.69%), Real Estate (7.70%), Consumer Discretionary (1.56%), Healthcare (0.46%), Cash (0.26%)
  - EWW Four Largest Constituents
    - Grupo Financiero Banorte | 12.52%
    - FEMSA | 11.05%
    - Walmart de Mexico | 9.31%
    - America Movil | 7.72%

Trade Breakdown

- **Bull Call Spread**
  - This option trade strategy benefits from relatively bullish price movements in the underlying Mexican equities ETF
- **Setup**
  - We Buy – 2,300.00 OTM $66.00 Calls | EWW
  - We Sell – 2,300.00 OTM $71.00 Calls | EWW
  - Max Loss: ($4,020,400.00)
  - Max Profit: $4,719,600.00
- **Expiration**
  - Date: September 20, 2024

Payoff Diagram



Exit Strategy & Potential Hedge Strategy

- **Bull Base & Bear Case**
  - **$71.50 / $68.80 / $65.00**
  - Breakeven - $68.30
- **Methodology**
  - The Index Derivatives Sector aims to benefit from an ~8.00% increase in the value of the underlying ETF before the contract reaches its expiration date
- **Hedge Strategy**
  - In the event of bearish price movement of the underlying ETF, the sector will look to reverse trade to prevent losses

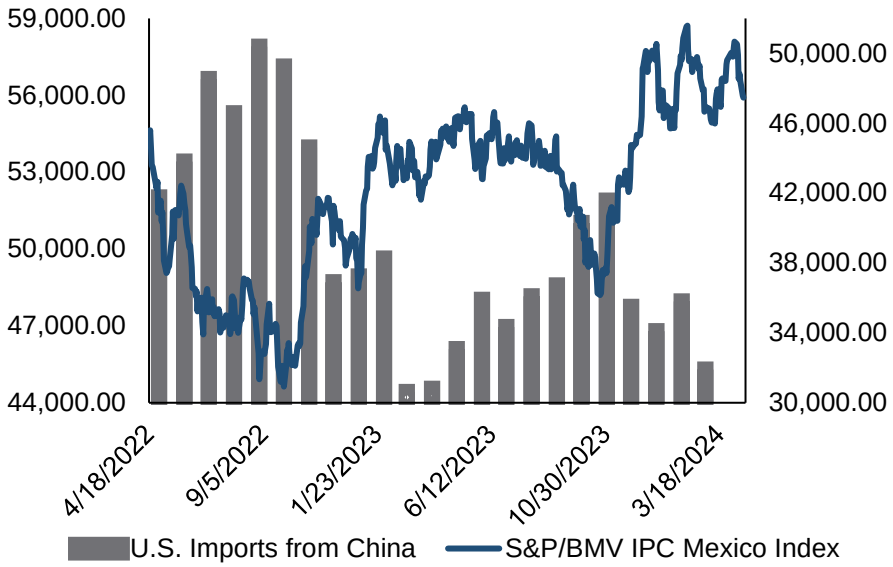
II. Macroeconomic Thesis

Macroeconomic Thesis

Macroeconomic Summary

- **Strong U.S. Demand Supports Mexican Economy**
  - Mexican equity performance is dependent on U.S. economic strength. Recent U.S. indicators demonstrate a strong consumer, increasing demand for Mexican goods
  - The value of U.S. trade with Mexico in 2023 reached nearly $800.00 bn, surpassing China for its primary trading partner. Mexico additionally sends 80.00% of its exports to the U.S.
- **Geopolitical Tensions Drive Investment and Trade with Mexico**
  - Foreign direct investment has hit record highs of $36.10 bn
  - Escalating animosity from and toward China continues to push manufacturing operations to Mexico
  - Mexican government is well positioned and continues to improve and become an attractive market to invest in
- **Robust Manufacturing and Strong Mexico Consumer**
  - Mexico Capacity Utilization hit an all-time high of 82.80% in January, showing extreme strength in economic efficiency
    - Volvo announced its first truck manufacturing facility in Mexico, while Tesla has secured a $135.00 mm incentive from Nuevo Leon to expand into Mexico
  - Unemployment hit near historical record low level of 2.40% y/y, coming out at 2.50% in February 2024
  - Consumer confidence reading is at a five-year high of 47.30, up from a low of 44.20 in April 2023

U.S. Imports from China vs IPC Mexico Index | Two-Year Chart



Market Pros & Cons

- Index trends up during election season
- Hedge funds continue strengthening positions on the peso
- Continued decrease in remittances affect Mexican consumers
- Morena party “Mexicanizes” foreign banks in the country

III. Risk Analysis

Risk Analysis

Directional & Magnitude Risk

- **Delta Analysis**
  - The Delta value for this trade is 0.1819
  - For every $1.00 change in the underlying ETF, the value of the trade will gain or lose $0.1819
  - This trade benefits from bullish price movements in the underlying price of the Mexican equities ETF
- **Gamma Analysis**
  - This trade has Gamma value of 0.0045
  - Gamma has a small impact on the trade due to the offsetting nature of buying and selling a call, meaning that for every $1.00 change in the underlying, Delta will change by 0.0045

Time Risk

- **Theta Analysis**
  - The trade has a Theta value of (0.0043)
  - Theta is negative since the trade is currently OTM. As every day passes, there is less chance that the trade will end up ITM
  - Theta is positive every time the underlying is above the breakeven price, in this case time decay would help the trade

Implied Volatility Risk

- **Vega Analysis**
  - The Vega for this trade is 0.0189
  - Implied volatility input for this trade is 23.00%
  - This trade is long volatility, and the vale is positive since the underlying is below the breakeven price. An increase in volatility will increase the chance of the trade being profitable for the sector

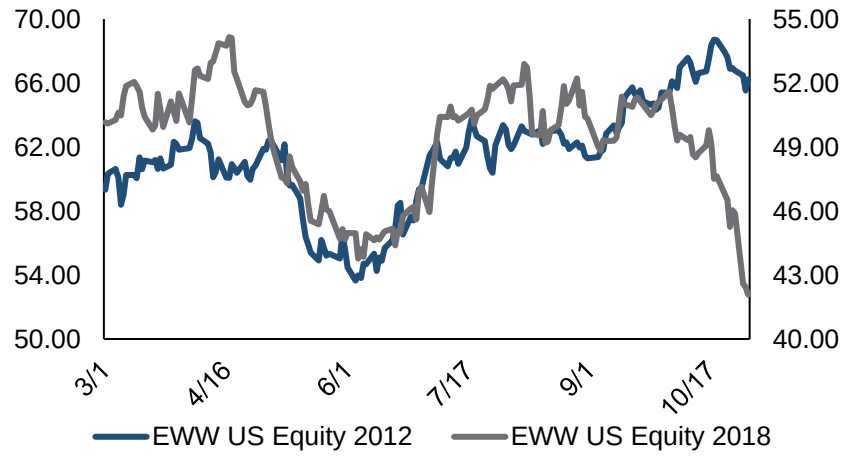
Interest Rate Risk

- **Rho Analysis**
  - The Rho value for this trade is (0.0073)
  - The value of Rho is small due to the long and short positions involved in the trade
  - A 1.00% increase in the risk-free rate would increase the value of the OTM short position by a greater amount than the long position resulting in a negative Rho

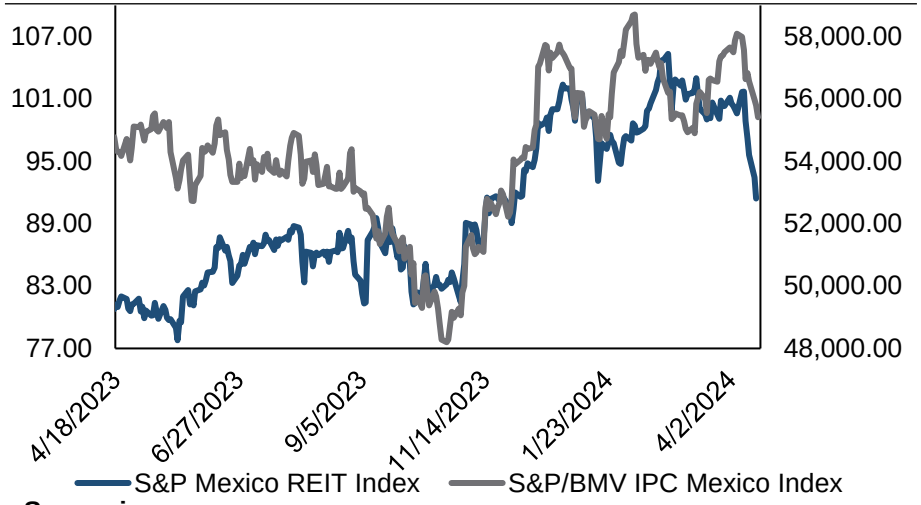
IV. Technical Bias & Fair Value

Technical Bias & Fair Value

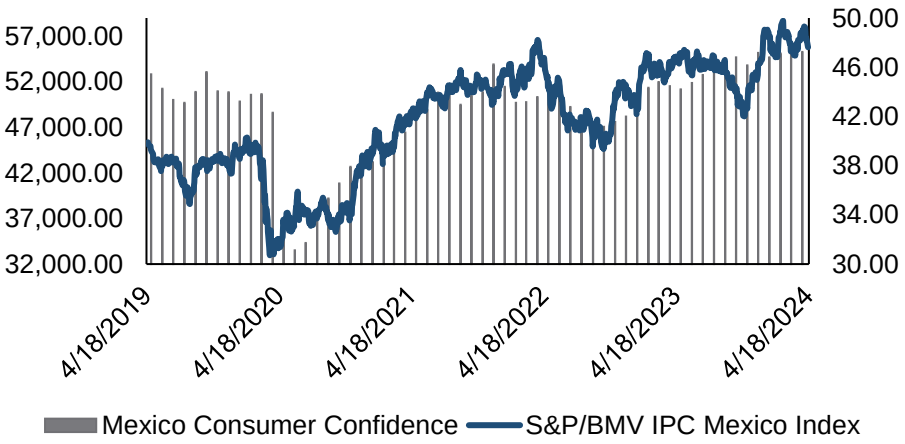
2012 vs. 2018 EWW Performance | Eight-Month Chart



Mexico REIT Index vs. IPC Mexico Index | One-Year Chart



IPC Mexico Index vs. Mexico Consumer Confidence | Five-Year Chart



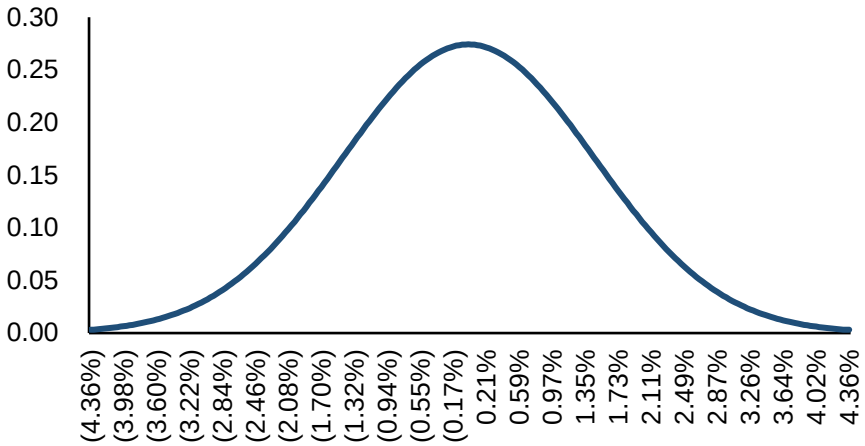
Synopsis

- Since 2000, each of the past four elections in Mexico have resulted in bullish movement in the index in the months of June and July. In the past, the election has been held on the first few days of July but this year it is moved up one month forward to June 2nd, 2024
- Over the past year, the Mexican equity market has been highly correlated to REIT performance. As owners of many industrial factories, REITs benefit from nearshoring when manufacturing clients increase, which has been a major driver of the Mexican stock market
- MEXBOL and Mexico Consumer Confidence have been strongly correlated throughout the past five years. The strength and confidence of the Mexican consumer has positively impacted the equity market

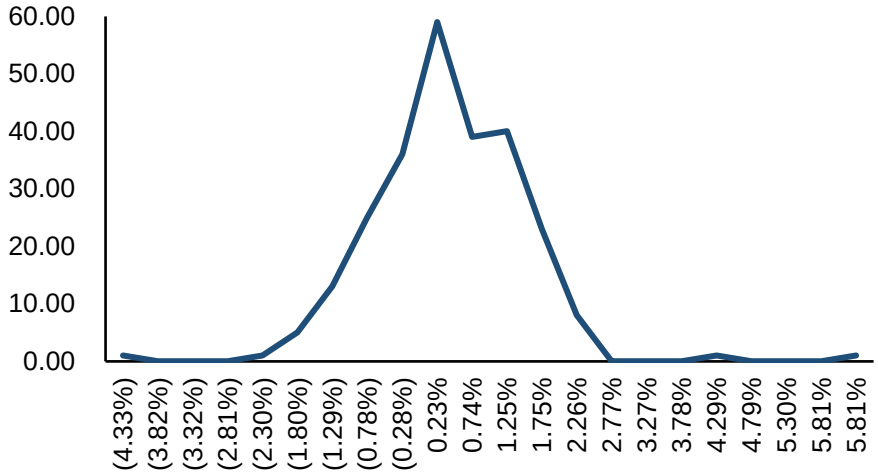
V. Volatility Analysis

Volatility Analysis

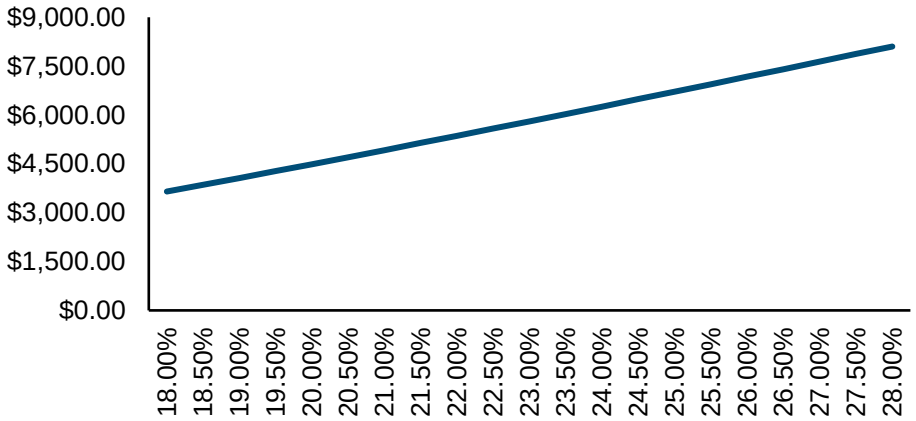
Expected Theoretical Daily Return Distribution



Historical Daily Return Distribution



Position Volatility Sensitivity



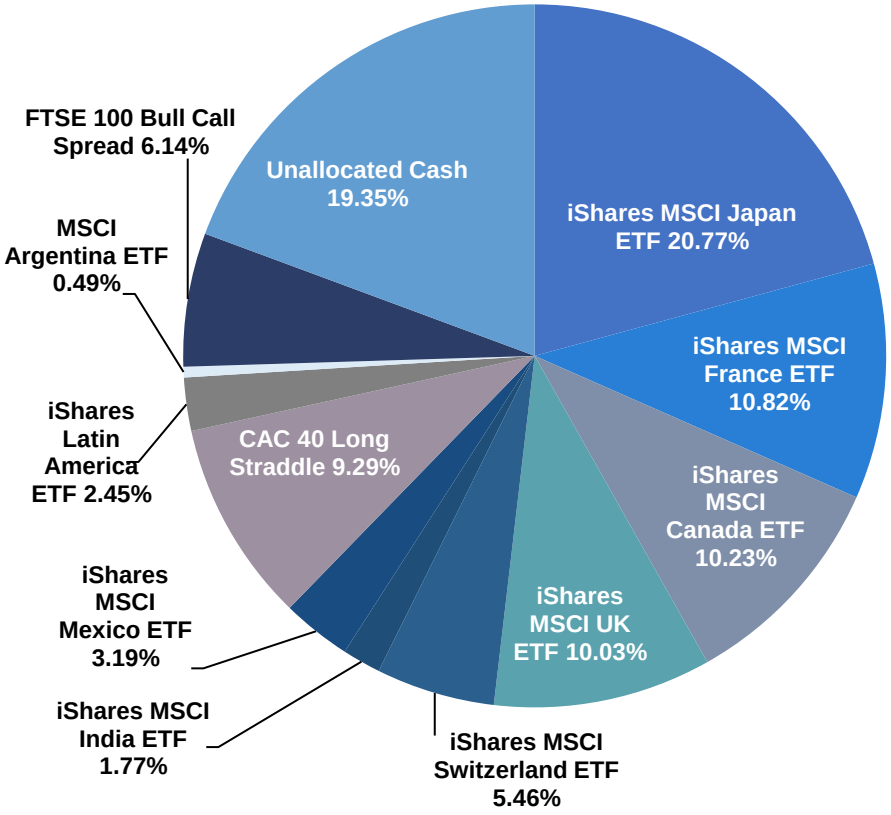
Theoretical Edge Analysis

Asset Description	Option Premium
Theoretical Long Call	$4.24
Actual Long Call	$3.40
Theoretical Short Call	$2.49
Actual Short Call	$1.10
Theoretical Long Call Adj. for DV1	$423.61
Actual Long Call Adj. for DV1	$340.00
Theoretical Short Call Adj. for DV1	$248.78
Actual Short Call Adj. for DV1	$110.00
Theoretical Edge (LC) Assuming 2,300.00 Contracts	$192,311.95
Theoretical Edge (SC) Assuming 2,300.00 Contracts	($319,188.39)
Total Theoretical Edge	($126,876.44)

V. Capital Allocation

Capital Allocation

Current Portfolio Allocation



Proposed Portfolio Allocation