

Itô’s Lemon – High Risk Portfolio

Quarterly Report

June 1st, 2019

**Portfolio Snapshot**

Portfolio Value

June 1st, 2019:

**$ 596,978.39 (USD)**

**$ 806,893.90 (CAD)**

Portfolio Composition

|  |  |
| --- | --- |
| Fixed Income (FI) | 71.6% |
| U.S. Equities (EQ) | — |
| Emerging Markets Equities (EM) | 12.9% |
| Real Estate (RE) | 13.6% |
| Options (OP) | 2.0% |

Portfolio Holdings

|  |  |  |
| --- | --- | --- |
| FI | ISHARES TIPS BOND ETF | 11.9% |
| ISHARES CORE U.S. AGGREGATE | 11.9% |
| ISHARES 7-10 YEAR TREASURY BO | 11.9% |
| ISHARES 20+ YEAR TREASURY BO | 11.9% |
| ISHARES 1-3 YEAR TREASURY BO | 11.9% |
| ISHARES IBOXX INVESTMENT GRADE | 11.9% |
| EQ | UTILITIES SELECT SECTOR SPDR | — |
| INDUSTRIAL SELECT SECT SPDR | — |
| ISHARES MSCI EUROZONE ETF | — |
| MATERIALS SELECT SECTOR SPDR | — |
| ISHARES GLOBAL TECH ETF | — |
| ISHARES US TELECOMMUNICATION | — |
| ISHARES EUROPE ETF | — |
| SPDR S&P 500 ETF TRUST | — |
| ISHARES MSCI EAFE ETF | — |
| FINANCIAL SELECT SECTOR SPDR | — |
| TECHNOLOGY SELECT SECT SPDR | — |
| HEALTH CARE SELECT SECTOR | — |
| CONSUMER STAPLES SPDR | — |
| ENERGY SELECT SECTOR SPDR | — |
| ISHARES MSCI JAPAN ETF | — |
| EM | ISHARES MSCI BRAZIL ETF | 4.3% |
| ISHARES MSCI CHINA INDEX ETF | 4.3% |
| ISHARES LATIN AMERICA 40 ETF | 4.3% |
| RE | ISHARES US REAL ESTATE ETF | 4.5% |
| SPDR DOW JONES REIT ETF | 4.5% |
| ISHARES COHEN & STEERS REIT | 4.5% |
| OP | BUTTERFLY OPTIONS ON S&P 500 | 2.0% |

**Five-Year Performance Overview**

\*all values (USD) in this section are annualized and include fees

Headline Numbers

|  |  |
| --- | --- |
| Time-Weighted Return | 13.7% |
| Money-Weighted Return | 13.8% |
| Standard Deviation | 8.2% |
| Sharpe Ratio | 1.66 |

Max Drawdown

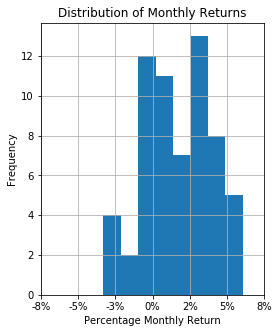
|  |  |
| --- | --- |
| Max Drawdown | -8.7% |
| Peak Date | JUL-2015 |
| Trough Date | JAN-2016 |

Investment Philosophy

Our portfolio uses ETFs to hold diverse positions across 4 major asset classes. We use the Risk Parity approach which makes use of empirical asset correlation to evenly distribute the risk between asset classes. Then within asset classes, we further diversify our holdings between several ETFs.

In addition, we use options to increase the risk/return profile of our portfolio. This is achieved by buying “butterfly options” on the S&P 500, which consist of two long call options and two short options. This setup gives up a highly leveraged negative exposure to volatility, which we believe is a good bet in this economic environment that we have been observing since the Financial Crisis.

We spend only 2% of the portfolio value on these options. Due to the nature of the butterfly, we cannot lose more than this 2% in the options market, because our downside is capped. Meanwhile, this strategy has been proven to increase our returns significantly over the past five years.



**Quarter Performance Details**

\*all returns in this section are monthly

Monthly Returns

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Month End** | **USD Value** | **CAD Value** | **ETF Return** | **Option Return** | **Trading Fees** | **Robo Fee** | **Net Return** |
| MAY-19 | $596,978.39 | $806,893.90 | 1.91% | -1.18% | 0.41% | 0.02% | 0.43% |
| APR-19 | $595,216.50 | $796,899.66 | 0.53% | 2.95% | 0.40% | 0.03% | 3.05% |
| MAR-19 | $577,582.59 | $771,014.99 | 2.06% | 1.64% | 0.44% | 0.03% | 3.24% |

ETF Return Attribution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Month End** | **Fixed Income** | **Equities** | **Emerging Markets** | **Real Estate** | **ETF Return** |
| MAY-19 | 1.91% | - | -0.03% | 0.03% | 1.91% |
| APR-19 | -0.22% | - | 0.77% | -0.02% | 0.53% |
| MAR-19 | 1.86% | - | -0.29% | 0.49% | 2.06% |

Option Return Attribution

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Month End** | **Delta/Gamma Return** | **Vega Return** | **Theta Return** | **Other Return** | **Option Return** |
| MAY-19 | -2.32% | -0.85% | 0.32% | 1.67% | -1.18% |
| APR-19 | 0.97% | 2.12% | 0.40% | -0.55% | 2.95% |
| MAR-19 | 0.43% | 0.16% | 0.32% | 0.72% | 1.64% |

Value at Risk

**Risk Analytics**

|  |  |
| --- | --- |
| Estimated 1-month 95% VaR | 3.49% |
| Estimated 1-month 95% Expected Shortfall | 4.41% |
| Estimated 1-month Volatility | 2.60% |

Value at Risk Contributions

|  |  |  |
| --- | --- | --- |
| **Scenario (1 Month)** | **$ Change in Portfolio Value** | **% Change in Portfolio Value** |
| GDP down 1% | - $ 4179.80 | - 0.7% |
| Volatility Up 50% | - $ 13429.48 | - 2.2% |
| Volatility Down 50% | $ 5502.03 | 0.9% |
| SPY Down 10% | - $ 22157.68 | - 3.7% |
| SPY Up 10% | $ 9294.02 | 1.6% |
| 10Y IR Up 1% | $ 5032.24 | 0.8% |

Scenario Analysis

**Five-Year Return Attribution**