Package 'jadeLizardOptions'

July 22, 2025

Type Package

Title Trading Jade Lizard Option Strategies

Version 1.0.1

Author MaheshP Kumar [aut, cre]

Maintainer MaheshP Kumar <maheshparamjitkumar@gmail.com>

Imports ggplot2, dplyr, magrittr, tibble

Description Jade Lizard and Reverse Jade Lizard Option Strategies are presented here through their Graphs. The graphic indicators, strategies, calculations, functions and all the discussions are for academic, research, and educational purposes only and should not be construed as investment advice and come with absolutely no Liability.
Russell A. Stultz ("The option strategy desk reference: an essential reference for option traders (First edition.)", 2019, ISBN: 9781949443912).

License GPL-3

Encoding UTF-8

RoxygenNote 7.2.1

NeedsCompilation no

Repository CRAN

Date/Publication 2022-11-09 11:40:02 UTC

Contents

`jadeLizardPnL` *Calculates per share (or unit of the underlying) Profit and Loss (PnL) at expiration for Jade Lizard Options Trading Strategy and draws its Bar Plot displaying the PnL at various Spot Prices.*

Description

Jade Lizard is a slightly Bullish Option Trading Strategy. It results from combining an OTM (out of the money) short put with OTM bear call spread that consists of buying a OTM higher strike call and selling somewhat lower strike but still OTM call (Stultz, 2019). A trader can use the Jade Lizard Options Strategy for underlying securities, including stocks, or stock indices (Nasdaq, 2022). In the bear call spread component of the Jade Lizard the higher strike call that you buy is further OTM than the lower strike call that you sell (Cohen, 2015). When created properly, this strategy has no upside risk. It is best suited for oversold stocks with high implied volatility (OptionStrat, n.d.). In the article titled Jade Lizard Option Strategies, Tastytrade explains that the strategy is created to have no upside risk, which is done by collecting a total credit greater than the width of the short call spread (Tastytrade, n.d.). OptionStrat demonstrates execution of Jade Lizard Strategy on a stock from North American Markets (OptionStrat, n.d.) and Strategy Builder from Opstra Definedge demonstrates its application in stock index like Nifty or a constituent stock. The Bar Plot clearly shows that the PnL Plotting of Jade Lizard Strategy looks quite similar to the shape that of a lizard.
Goals: This trade retains the premium collected when opened as long as both the short put and vertical bear call spread remain OTM (Stultz, 2019).
Manage: If the price of the underlying security remains within a narrow range, let the options expire worthless. If it is an American option that can be closed before expiration and if a price rally or drop occurs that threatens the short put or the bear call vertical spread, close the vulnerable positions and retain the safe position until it either expires worthless or can be closed for a profit (Stultz, 2019).
Profit: If it is an American option that can be closed before expiration then close the positions when this strategy achieves a profit of 30 percent or more. If the options remain OTM, consider letting the trade expire worthless(Stultz, 2019).
Loss: If it is an American option that can be closed before expiration the close the positions when a loss in premium value becomes 8 percent or less (Stultz, 2019).

Usage

```
jadeLizardPnL(
  ST,
  XHU,
  XHL,
  XM,
  lcp,
  scp,
  spp,
  hl = 0,
  hu = 1.9,
  spot = spot,
  pl = pl,
```

```
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)
```

Arguments

ST	Spot Price at time T
XHU	Higher-Upper Strike Price or eXercise price for bought Call
XHL	Higher-Low Strike Price or eXercise price for shorted call
XM	Strike Price or eXercise price for OTM shorted Put
lcp	Long Call Premium
scp	Short Call Premium
spp	Short Put Premium
hl	lower bound value for setting lower-limit of x-axis displaying spot price.
hu	upper bound value for setting upper-limit of x-axis displaying spot price.
spot	Spot Price
pl	Profit and Loss column in data frame
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Stultz (2019), and a closed form solution is developed for Jade Lizard Strategy and applied to draw the Bar plot in the Plots tab. Further given examples are created, to compute per share Profit and Loss at expiration for Jade Lizard Strategy to demonstrate the strategy through its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitkumar@gmail.com>

References

Stultz, R. A. (2019). The option strategy desk reference: an essential reference for option traders (First edition.). Business Expert Press.
Nasdaq (2022, April 11). Ultimate Guide to the Jade Lizard Options Strategy. https://www.nasdaq.com/articles/ultimate-guide-to-the-jade-lizard-options-strategy
Cohen, G. (2015). The Bible of Options Strategies (2nd ed.). Pearson Technology Group.
OptionStrat. (n.d.). What is a jade lizard? https://optionstrat.com/build/jade-lizard

Tastytrade. (n.d.). Jade Lizard Option Strategies. https://www.tastytrade.com/concepts-strategies/jade-lizard
https://opstra.definedge.com/strategy-builder
R Graphics Cookbook. (n.d.). Coloring Negative and Positive Bars Differently. https://r-graphics.org/recipe-bar-graph-color-neg
Gross C, Ottolinger P (2016).*ggThemeAssist: Add-in to Customize 'ggplot2' Themes*. R package version 0.1.5, <URL: https://CRAN.R-project.org/package=ggThemeAssist>.

Examples

```
jadeLizardPnL(10,17,12,15,1,2,5)
jadeLizardPnL(40,45,34,40,2,6,11,hl=0.25,hu=1.25)
jadeLizardPnL(383.7,405,395,385,3.85,6.35,11,hl=0.92,hu=1.075)
```

`reverseJadeLizardPnL` *Calculates per share (or unit of the underlying) Profit and Loss (PnL) at expiration for Reverse Jade Lizard Options Trading Strategy and draws its Bar Plot displaying the PnL.*

Description

Reverse Jade Lizard is also known as the Twisted Sister Strategy. A twisted sister is a slightly bearish (or neutral), undefined upside risk strategy. This strategy is the opposite of a jade lizard. To construct this strategy we would sell an OTM call, and sell an OTM put spread at the same time. Maximum profit is achieved if the stock price ends up between the short strikes at expiration. We have found that twisted sister under-performs in the long run when compared to jade lizard because jade lizard takes advantage of volatility skew (Tastytrade, n.d.).
Volatility skew refers to the pricing differential in equidistant OTM options. Prior to the crash of 1987, this skew was non-existent. This skew creates an environment where the puts generally trade richer than the calls, due to the fact that the velocity of a crash is much higher than that of a rally. Since the goal for both strategies is for the stock price to expire within the short strikes, our assumption is the same for both (Tastytrade, n.d.).
Due to volatility skew normally being downside, the opportunity to utilize the twisted sister rarely arises. The single best time to use the twisted sister is when volatility skew inverts, meaning calls are trading richer than puts. This normally happens in breakout stocks after a parabolic move to the upside (Tastytrade, n.d.).
Goals: This trade retains the premium collected when opened as long as both the short call and bull put spread remain OTM (Stultz, 2019)
Manage: If the price of the underlying security remains within a narrow range, let the options expire worthless. If a price rally or drop occurs that threatens the short call or the vertical bull put spread, close the vulnerable position and retain the safe position until it either expires worthless or can be closed for a reasonable profit (Stultz, 2019).
Profit: If it is an American option that can be closed before expiration then close the positions when this strategy achieves a profit of 30 percent or more (Stultz, 2019).
Loss: If it is an American option that can be closed before expiration the close the positions when a loss in premium value becomes 8 percent or less (Stultz, 2019).

Usage

```
reverseJadeLizardPnL(
  ST,
  XLL,
  XLU,
  XH,
  lpp,
  spp,
  scp,
  hl = 0.4,
  hu = 2.5,
  spot = spot,
  pl = pl,
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)
```

Arguments

ST	Spot Price at time T
XLL	Lower-low Strike Price or eXercise price for bought Put
XLU	Lower-upper Strike Price or eXercise price for shorted put
XH	Strike Price or eXercise price for shorted call
lpp	Long Put Premium
spp	Short Put Premium
scp	Short Call Premium
hl	lower bound value for setting lower-limit of x-axis displaying spot price.
hu	upper bound value for setting upper-limit of x-axis displaying spot price.
spot	Spot Price
pl	profit and loss column of the data frame
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

#'According to conceptual details given by Stultz (2019), a closed form solution is developed for Reverse Jade Lizard Strategy and applied to draw the Bar plot in the Plots tab. Further given examples are created, to compute per share Profit and Loss at expiration for Reverse Jade Lizard Strategy and to demonstrate the strategy through its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitkumar@gmail.com>

References

Stultz, R. A. (2019). The option strategy desk reference: an essential reference for option traders (First edition.). Business Expert Press.
Tastytrade. (n.d.). Twisted Sister. https://www.tastytrade.com/definitions/twisted-sister
Kumar M (2022).*bearishTrader: Trading Strategies for Bearish Outlook*. R package version1.0.2, <URL: https://CRAN.R-project.org/package=bearishTrader>.
R Graphics Cookbook. (n.d.). Coloring Negative and Positive Bars Differently. https://r-graphics.org/recipe-bar-graph-color-neg
Gross C, Ottolinger P (2016).*ggThemeAssist: Add-in to Customize 'ggplot2' Themes*. R package version 0.1.5, <URL: https://CRAN.R-project.org/package=ggThemeAssist>.

Examples

```
reverseJadeLizardPnL(15,11,14,17,3,8,1)
reverseJadeLizardPnL(46,42,47,50,5,9,3,hl=0.8,hu=1.65)
reverseJadeLizardPnL(410,395,405,420,11,20,4,hl=0.94,hu=1.12)
```

Index