

Package ‘condorOptions’

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Type Package

Title Trading Condor Options Strategies

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Imports ggplot2, dplyr, magrittr, tibble

Description

Trading of Condor Options Strategies is represented 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.

Guy Cohen (“The Bible of Options Strategies (2nd ed.)”, 2015, ISBN: 9780133964028).

Zura Kakushadze, Juan A. Serur (“151 Trading Strategies”, 2018, ISBN: 9783030027919).

John C. Hull (“Options, Futures, and Other Derivatives (11th ed.)”, 2022, ISBN: 9780136939979).

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R topics documented:

longCallCondor	2
longIronCondor	3
longPutCondor	5
shortCallCondor	7
shortIronCondor	9
shortPutCondor	11

Index	13
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longCallCondor	<i>Calculates per share Profit and Loss (PnL) at expiration for long Call Condor Option Strategy and draws its Bar Plot displaying PnL in the Plots tab.</i>
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Description

This strategy consists of a long position in an ITM call option with a strike price X1L, a short position in an ITM call option with a higher strike price X2Ml, a short position in an OTM call option with a strike price X3Mu, and a long position in an OTM call option with a higher strike price X4H. All strikes are equidistant: $X4H - X3Mu = X3Mu - X2Ml = X2Ml - X1L$ (Kakushadze & Serur, 2018).

Usage

```
longCallCondor(
  ST,
  X1L,
  X2Ml,
  X3Mu,
  X4H,
  C1L,
  C2Ml,
  C3Mu,
  C4H,
  hl = 0,
  hu = 2,
  spot = spot,
  pl = pl,
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)
```

Arguments

ST	Spot Price at time T.
X1L	Lower Strike Price or eXercise price for an ITM long call.
X2Ml	Middle-low Strike Price or eXercise price for sold call.
X3Mu	Middle-upper Strike Price or eXercise price for sold Calls.
X4H	Higher Strike Price or eXercise price for one OTM bought call.
C1L	Call Premium or Call Price paid for the one ITM bought Call.
C2Ml	Call Premium or Call Price received from the middle-low sold Call.
C3Mu	Call Premium or Call Price received from the middle-upper sold Call.
C4H	Call Premium or Call Price paid for the one OTM bought call.

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
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Cohen (2015), and a closed form solution provided by Kakushadze and Serur (2018), this method is developed, and the given examples are created, to compute per share Profit and Loss at expiration for Long Call Condor Option Strategy and draw its graph in the Plots tab.

Value

graph of the strategy

Author(s)

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References

Cohen, G. (2015). *The Bible of Options Strategies* (2nd ed.). Pearson Technology Group.
 Kakushadze, Z., & Serur, J. A. (2018, August 17). 151 Trading Strategies. Palgrave Macmillan.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247865
 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

```
longCallCondor(415, 400, 420, 440, 460, 50, 35, 22, 16, hl=0.95, hu=1.125)
```

longIronCondor	<i>Calculates per share Profit and Loss (PnL) at expiration for Long Iron Condor Option Strategy and draws its Bar Plot displaying PnL in the Plots tab.</i>
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Description

This strategy consists of a long position in an OTM put option with a strike price X1L, a short position in put option with higher Strike X2 price and a short position OTM (out of the money) call option with a strike price X3, and a long position in call option with a higher strike price X4H. The strikes are equidistant: X2 minus X1L equals to X4H minus X3 (Kakushadze & Serur, 2018).

Usage

```

longIronCondor(
  ST,
  X1L,
  X2,
  X3,
  X4H,
  P1L,
  P2,
  C3,
  C4H,
  h1 = 0,
  hu = 2,
  spot = spot,
  p1 = p1,
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)

```

Arguments

ST	Spot Price at time T.
X1L	Lower Strike Price or eXercise price for one OTM bought Put.
X2	Strike Price or eXercise price for one short Put.
X3	Strike Price or eXercise price for one short Call.
X4H	Higher Strike Price or eXercise price for one OTM bought Call.
P1L	Put Premium or Put Price paid for the first OTM bought Put.
P2	Put Premium or Put Price received from the sold Put.
C3	Put Premium or Put Price received from the sold Call.
C4H	Call Premium or Put Price paid for the one OTM bought Call.
h1	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
p1	Profit and Loss
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Cohen (2015), and a closed form solution provided by Kakushadze and Serur (2018), this method is developed, and the given examples are created, to compute per share Profit and Loss at expiration for Long Iron Condor Option Strategy and draw its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitkumar@gmail.com>

References

Cohen, G. (2015). *The Bible of Options Strategies* (2nd ed.). Pearson Technology Group.
 Kakushadze, Z., & Serur, J. A. (2018, August 17). 151 Trading Strategies. Palgrave Macmillan.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247865
 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

```
longIronCondor(405,400,410,420,430,8,11,13,9,h1=0.95,hu=1.1)
```

longPutCondor	<i>Calculates per share Profit and Loss (PnL) at expiration for Long Put Condor Option Strategy and draws its Bar Plot displaying PnL in the Plots tab.</i>
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Description

This strategy consists of a long position in an OTM Put option with a strike price X1L, a short position in an OTM Put option with a higher strike price X2M1, a short position in an ITM Put option with a strike price X3Mu, and a long position in an ITM Put option with a higher strike price X4H. All strikes are equidistant: X4H minus X3Mu equals to X3Mu minus X2M1; equals to X2Mu minus X1L(Kakushadze & Serur, 2018).

Usage

```
longPutCondor(  
  ST,  
  X1L,  
  X2M1,  
  X3Mu,  
  X4H,  
  P1L,  
  P2M1,  
  P3Mu,  
  P4H,  
  h1 = 0,
```

```

    hu = 2,
    spot = spot,
    p1 = p1,
    myData = myData,
    myTibble = myTibble,
    PnL = PnL
  )

```

Arguments

ST	Spot Price at time T.
X1L	Lower Strike Price or eXercise price for one ITM bought put.
X2Ml	Middle-low Strike Price or eXercise price for middle strike sold put.
X3Mu	Middle-upper Strike Price or eXercise price for middle strike sold put.
X4H	Higher Strike Price or eXercise price for one OTM bought put.
P1L	Put Premium or Put Price paid for the one OTM bought Put.
P2Ml	Put Premium or Put Price received from the middle-low sold Put.
P3Mu	Put Premium or Put Price received from the middle-upper sold Put.
P4H	Put Premium or Put Price paid for the one ITM bought Put.
h1	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
p1	Profit and Loss
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Cohen (2015), and a closed form solution provided by Kakushadze and Serur (2018), this method is developed, and the given examples are created, to compute per share Profit and Loss at expiration for Long Put Condor Option Strategy and draw its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitkumar@gmail.com>

References

- Cohen, G. (2015). *The Bible of Options Strategies* (2nd ed.). Pearson Technology Group.
- Kakushadze, Z., & Serur, J. A. (2018, August 17). 151 Trading Strategies. Palgrave Macmillan. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247865
- 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

```
longPutCondor(425, 400, 420, 440, 460, 16, 22.50, 35.50, 50, h1=0.9, hu=1.125)
```

shortCallCondor	<i>Calculates per share Profit and Loss (PnL) at expiration for Short Call Condor Option Strategy and draws its Bar Plot displaying PnL in the Plots tab.</i>
-----------------	---

Description

This is a volatility strategy consisting of a short position in an ITM call option with a strike price X1L, a long position in an ITM call option with a higher strike price X2M1, a long position in an OTM call option with a strike price X3Mu, and a short position in an OTM call option with a higher strike price X4H. All strikes are equidistant: X4H minus X3Mu equals to X3Mu minus X2M1; equals to X2Mu minus X1L. This is a relatively low net credit trade. The trader or investor has a neutral outlook (Kakushadze & Serur, 2018).

Usage

```
shortCallCondor(
  ST,
  X1L,
  X2M1,
  X3Mu,
  X4H,
  C1L,
  C2M1,
  C3Mu,
  C4H,
  h1 = 0,
  hu = 2,
  spot = spot,
  pl = pl,
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)
```

Arguments

ST	Spot Price at time T.
X1L	Lower Strike Price or eXercise price for one ITM shorted Call.
X2Ml	Middle-low Strike Price or eXercise price for two middle strike bought Calls.
X3Mu	Middle-upper Strike Price or eXercise price for two middle strike bought Calls.
X4H	Higher Strike Price or eXercise price for one OTM shorted Call.
C1L	Call Premium or Call Price received for the one ITM shorted Call.
C2Ml	Call Premium or Call Price paid for the middle-low bought Call.
C3Mu	Call Premium or Call Price paid for the middle-upper bought Call.
C4H	Call Premium or Call Price received for the one OTM shorted Call.
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
p1	Profit and Loss
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Cohen (2015), and a closed form solution provided by Kakushadze and Serur (2018), this method is developed, and the given examples are created, to compute per share Profit and Loss at expiration for Short Call Condor Option Strategy and draw its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitkumar@gmail.com>

References

Cohen, G. (2015). *The Bible of Options Strategies* (2nd ed.). Pearson Technology Group.
 Kakushadze, Z., & Serur, J. A. (2018, August 17). 151 Trading Strategies. Palgrave Macmillan.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247865
 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

```
shortCallCondor(415, 400, 420, 440, 460, 50, 35, 22, 16, hl=0.95, hu=1.125)
```

shortIronCondor	<i>Calculates per share Profit and Loss (PnL) at expiration for Short Iron Condor Option Strategy and draws its Bar Plot displaying PnL in the Plots tab.</i>
-----------------	---

Description

This volatility strategy is a combination of a bear put spread and a bull call spread and consists of a short position in an OTM put option (out of the money put : put Strike price is lower than spot price X1L) with a strike price X1L, a long position in put option with higher Strike X2 price and a long position OTM (out of the money) call option with a strike price X3, and a short position in call option with a higher strike price X4H. The strikes are equidistant: X2 minus X1L equals to X4H minus X3 . This is a net debit trade. The trader or investor has an outlook that is neutral (Kakushadze & Serur, 2018).

Usage

```
shortIronCondor(
  ST,
  X1L,
  X2,
  X3,
  X4H,
  P1L,
  P2,
  C3,
  C4H,
  h1 = 0,
  hu = 2,
  spot = spot,
  p1 = p1,
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)
```

Arguments

ST	Spot Price at time T.
X1L	Lower Strike Price or eXercise price for one OTM shorted Put.
X2	Strike Price or eXercise price for one bought Put.
X3	Strike Price or eXercise price for one bought Call.
X4H	Higher Strike Price or eXercise price for one OTM shorted Call.
P1L	Put Premium or Put Price received for the first OTM shorted Put.
P2	Put Premium or Put Price paid for the bought Put.

C3	Put Premium or Put Price paid for the bought Call.
C4H	Call Premium or Put Price received for the one OTM shorted Call.
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
p1	Profit and Loss
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Cohen (2015), and a closed form solution provided by Kakushadze and Serur (2018), this method is developed, and the given examples are created, to compute per share Profit and Loss at expiration for Short Iron Condor Option Strategy and draw its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitkumar@gmail.com>

References

Cohen, G. (2015). *The Bible of Options Strategies* (2nd ed.). Pearson Technology Group.
 Kakushadze, Z., & Serur, J. A. (2018, August 17). 151 Trading Strategies. Palgrave Macmillan.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247865
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 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

shortIronCondor(405,400,410,420,430,8,11,13,9,hl=0.95,hu=1.1)

shortPutCondor	<i>Calculates per share Profit and Loss (PnL) at expiration for Short Put Condor Option Strategy and draws its Bar Plot displaying PnL in the Plots tab.</i>
----------------	--

Description

This is a volatility strategy consisting of a short position in an OTM Put option with a strike price X_{1L} , a long position in an OTM Put option with a higher strike price X_{2M} , a long position in an ITM Put option with a strike price X_{3M} , and a short position in an ITM Put option with a higher strike price X_{4H} . All strikes are equidistant: X_{4H} minus X_{3M} equals to X_{3M} minus X_{2M} ; equals to X_{2M} minus X_{1L} . This is a relatively low net credit trade. As with a short put butterfly, the potential reward is sizably smaller than with a short straddle or a short strangle (albeit with a lower risk). So, this is a capital gain (rather than an income) strategy. The trader or investor has neutral outlook (Kakushadze & Serur, 2018).

Usage

```
shortPutCondor(
  ST,
  X1L,
  X2M,
  X3M,
  X4H,
  P1L,
  P2M,
  P3M,
  P4H,
  h1 = 0,
  hu = 2,
  spot = spot,
  p1 = p1,
  myData = myData,
  myTibble = myTibble,
  PnL = PnL
)
```

Arguments

ST	Spot Price at time T.
X1L	Lower Strike Price or eXercise price for one ITM shorted Put.
X2M	Middle-low Strike Price or eXercise price for middle strike bought Put.
X3M	Middle-upper Strike Price or eXercise price for middle strike bought Put.
X4H	Higher Strike Price or eXercise price for one OTM shorted Put.
P1L	Put Premium or Put Price received for the one OTM shorted Put.

P2Ml	Put Premium or Put Price paid for the middle-low bought Put.
P3Mu	Put Premium or Put Price paid for the middle-upper bought Put.
P4H	Put Premium or Put Price received for the one ITM shorted Put.
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
p1	Profit and Loss
myData	Data frame
myTibble	tibble
PnL	Profit and Loss

Details

According to conceptual details given by Cohen (2015), and a closed form solution provided by Kakushadze and Serur (2018), this method is developed, and the given examples are created, to compute per share Profit and Loss at expiration for Short Put Condor Option Strategy and draw its graph in the Plots tab.

Value

graph of the strategy

Author(s)

MaheshP Kumar, <maheshparamjitektumar@gmail.com>

References

Cohen, G. (2015). *The Bible of Options Strategies* (2nd ed.). Pearson Technology Group.
 Kakushadze, Z., & Serur, J. A. (2018, August 17). 151 Trading Strategies. Palgrave Macmillan.
https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3247865
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Examples

shortPutCondor(425, 400, 420, 440, 460, 16, 22, 35, 50, hl=0.9, hu=1.125)

Index

longCallCondor, [2](#)
longIronCondor, [3](#)
longPutCondor, [5](#)

shortCallCondor, [7](#)
shortIronCondor, [9](#)
shortPutCondor, [11](#)