PRACTITIONERS' INSIGHTS: FUTURES AND OPTIONS IN INDIAN MARKETS

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Cofounder, Quantify Capital

Date: Thursday, 18 February 2021
Time: 5:30 – 6:30 p.m. IST

CFA Institu

Futures and Options in Indian Markets

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Use Options to hedge your Equity Portfolio in a Bear Market

- All investments in the markets are vulnerable to different types of risks
- No one knows for sure if or when there could be a major crash coming
- All we can do is reduce risk with portfolio Hedging & diversification
- We will discuss more about how we can hedge our portfolio using Options

March Crash

Enter Symbol
1D
Views
Display
Studies
Layout
Events
Trade
BAJFINANCE
O: 4640
C: 4465.85
H: 4640
L: 4311.75
V: 4.94 M
D: 28/02/2020
5705.15
4500.00
4000.00
3500.00
3000.00
2500.00
2000.00
ZERODHA
Oct
Nov
Dec
2020
Feb
Mar
Apr
May
Jun
Jul


BAJFINANCE
O: 4600
C: 2215.8
H: 4617.95
L: 2100
V: 102 M
D: 02/03/2020
5705.15
5000.00
4000.00
3000.00
2000.00
1000.00
0.00
2009
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021

What if you hedged your BajFinance holding in March ?

- BajFinance CMP = 4500 on 2nd March 2020
- Strike 4500 PE @ 130   Lot Size 250

On March Expiry,

Baj Finance CMP 2793

Price of 4500 PE 1750

Loss in portfolio = 250*(2793-4500)=-426750

Gain from put option = 250*(1750-130)=405000

Net Loss = - 21750

4500 PE Chart of Bajaj Finance

REAL LIFE EXAMPLES

NRML Qty. 14000 LTP 72.80

YESBANK18SEP320PE NFO ₹11.69

522.55%%

+8,55,487.50

Got saved by 320 PE buy as hedge

NRML Qty. -24500 LTP 0.90

YESBANK18SEP330CE NFO ₹8.97

-89.97%%

+1,97,837.50

I had 330 PE sold overnight

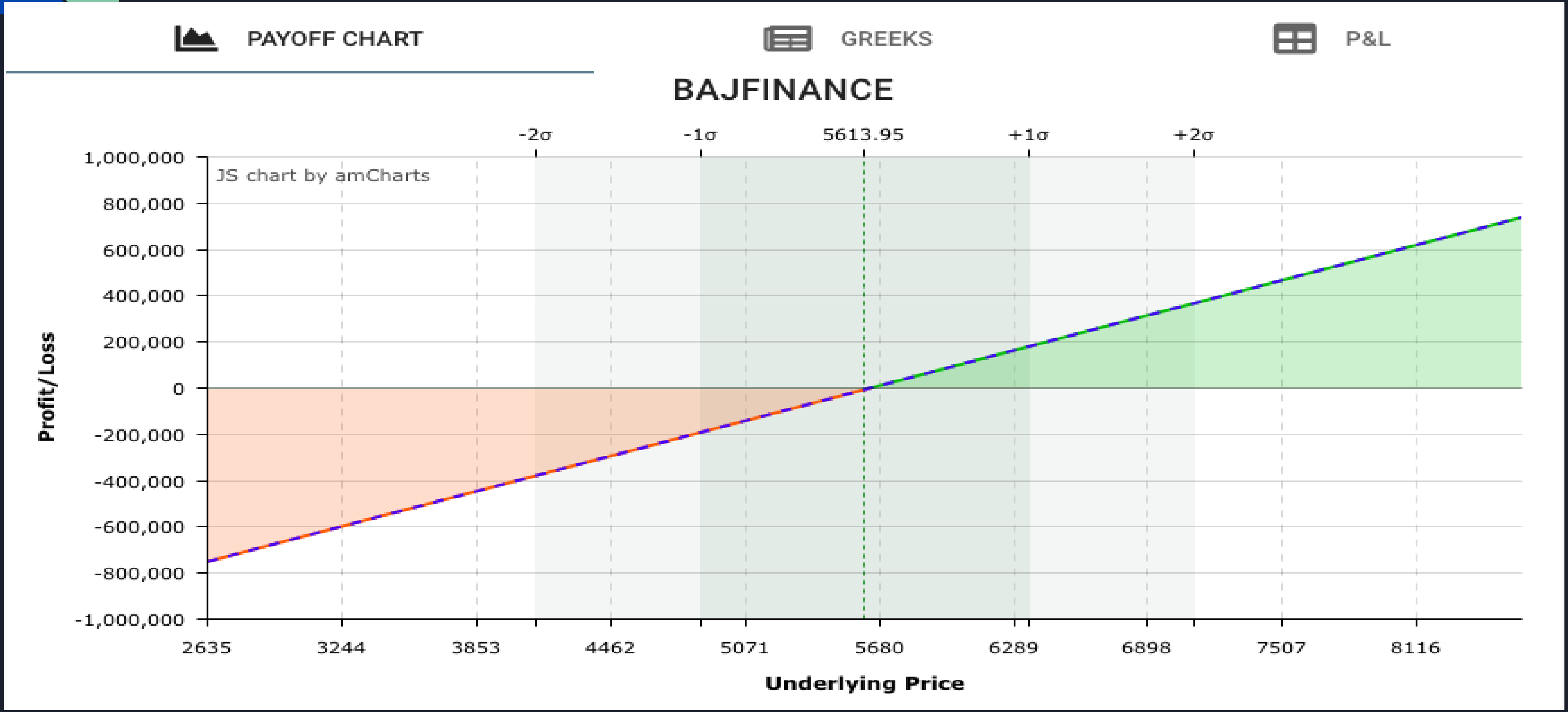
NRML Qty. -14000 LTP 83.30

YESBANK18SEP330PE NFO ₹13.53

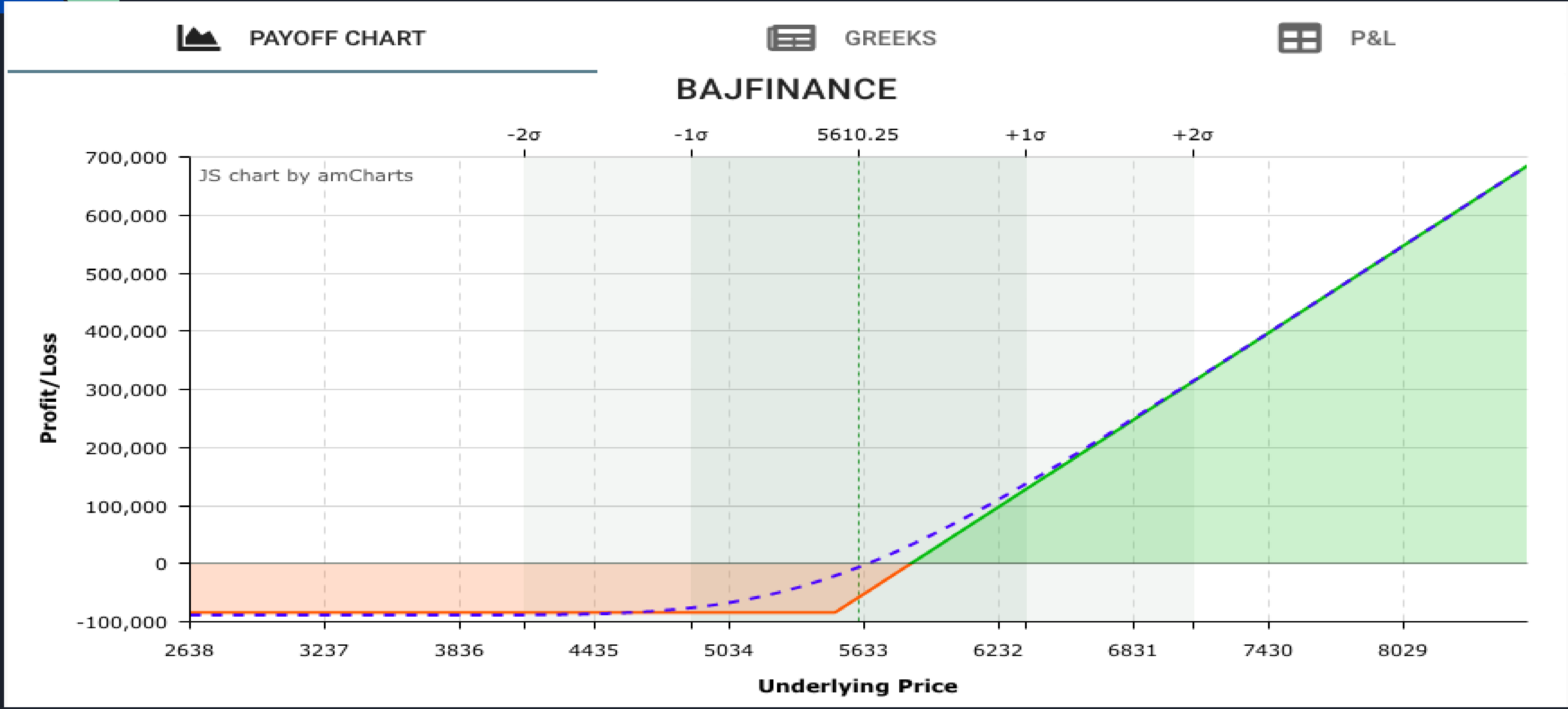
515.90%%

-9,76,850.00

Payoff of Long Position



Payoff with Put option



Stats

Strategy Positions RESET

+1x 25MAR2021 FUTURES - ₹ 5632.2 (-862.5)

+1x 25MAR2021 5500PE - ₹ 206.05 (0)

Prob. of Profit	38.12%
Max. Profit	₹ Undefined
Max. Loss	₹ -84,562 (-68.06%)
Max. RR Ratio	NA
Breakevens	5839.0
Total PNL	₹ -862.5 (-0.69%)
Net Credit	₹ 0
Estimated Margin/Premium	₹ +124,251

Pros & Cons

Pros:

- Your profit in the hedge in unlimited
- Your loss is limited (What you can lose maximum is the premium you have paid)

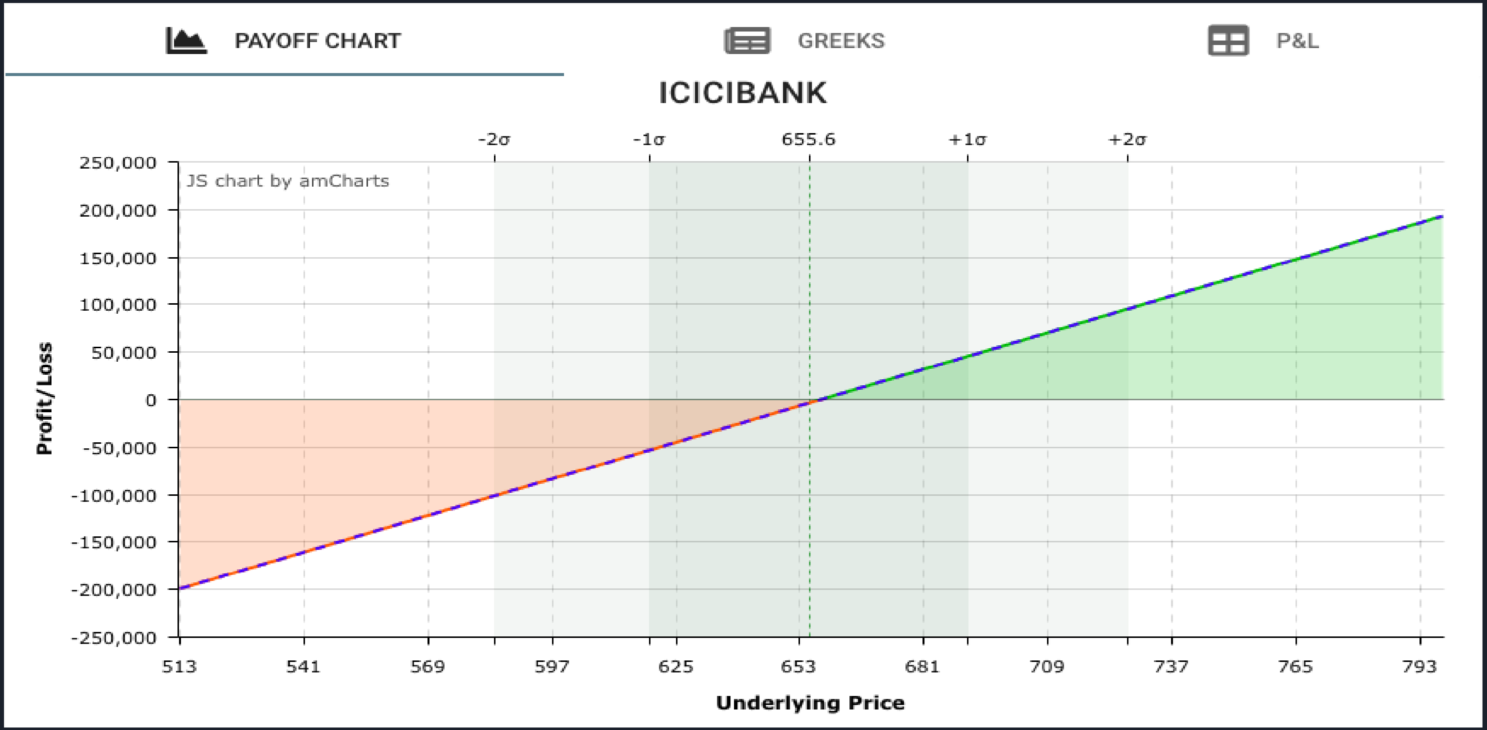
Cons:

- Most of the times the put option will expire worthless
- Buying only a Deep OTM put option will not protect your portfolio from a small correction

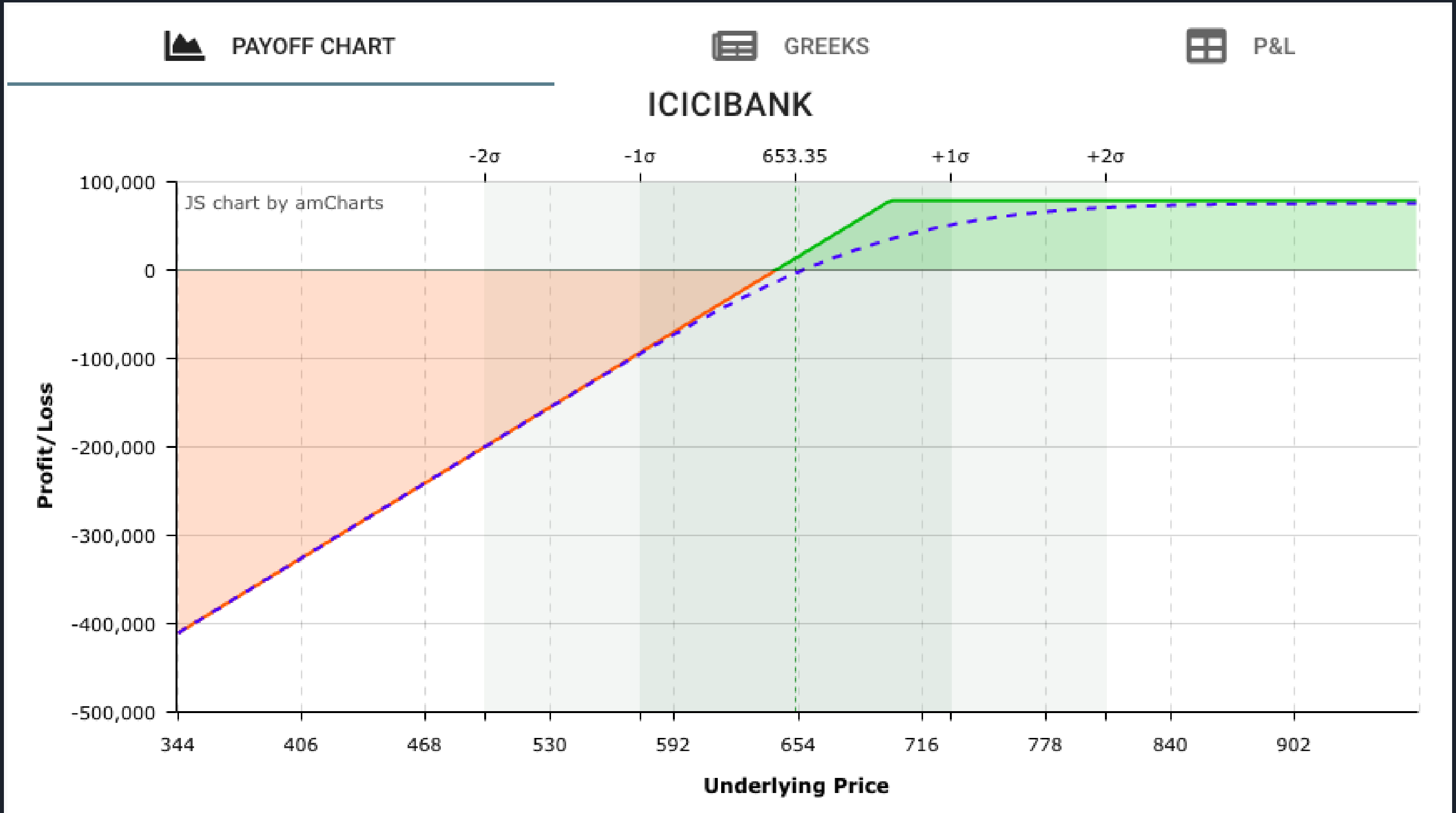
Covered Call strategy to generate additional income

- A covered call strategy means selling out of money (OTM) call options against a long equity portfolio.
- This strategy is generally used in individual stocks
- Example :
- If the stock price rises above the strike price, losses on the option position can be offset with the gains in the equity position

Payoff of Long Position



Payoff Chart



Stats

Strategy Positions RESET

-1x 25MAR2021 700CE - ₹ 13.8 (0)

+1x 25MAR2021 FUTURES - ₹ 656.65 (-68.75)

Prob. of Profit	55.35%
Max. Profit	₹ +78,581 (26.84%)
Max. Loss	₹ Undefined
Max. RR Ratio	NA
Breakevens	643.0
Total PNL	₹ -68.75 (-0.02%)
Net Credit	₹ +18,975
Estimated Margin/Premium	₹ +292,785

Pros & Cons

Pros:

- Helps you generate regular income
- Can make money in 3 movement (Bearish, Sideways, Marginal rise)

Cons

- Caps your profits
- Losses in the downward moves in the underlying stock price are only limited by the amount of premium received

Stats

Strategy Positions RESET

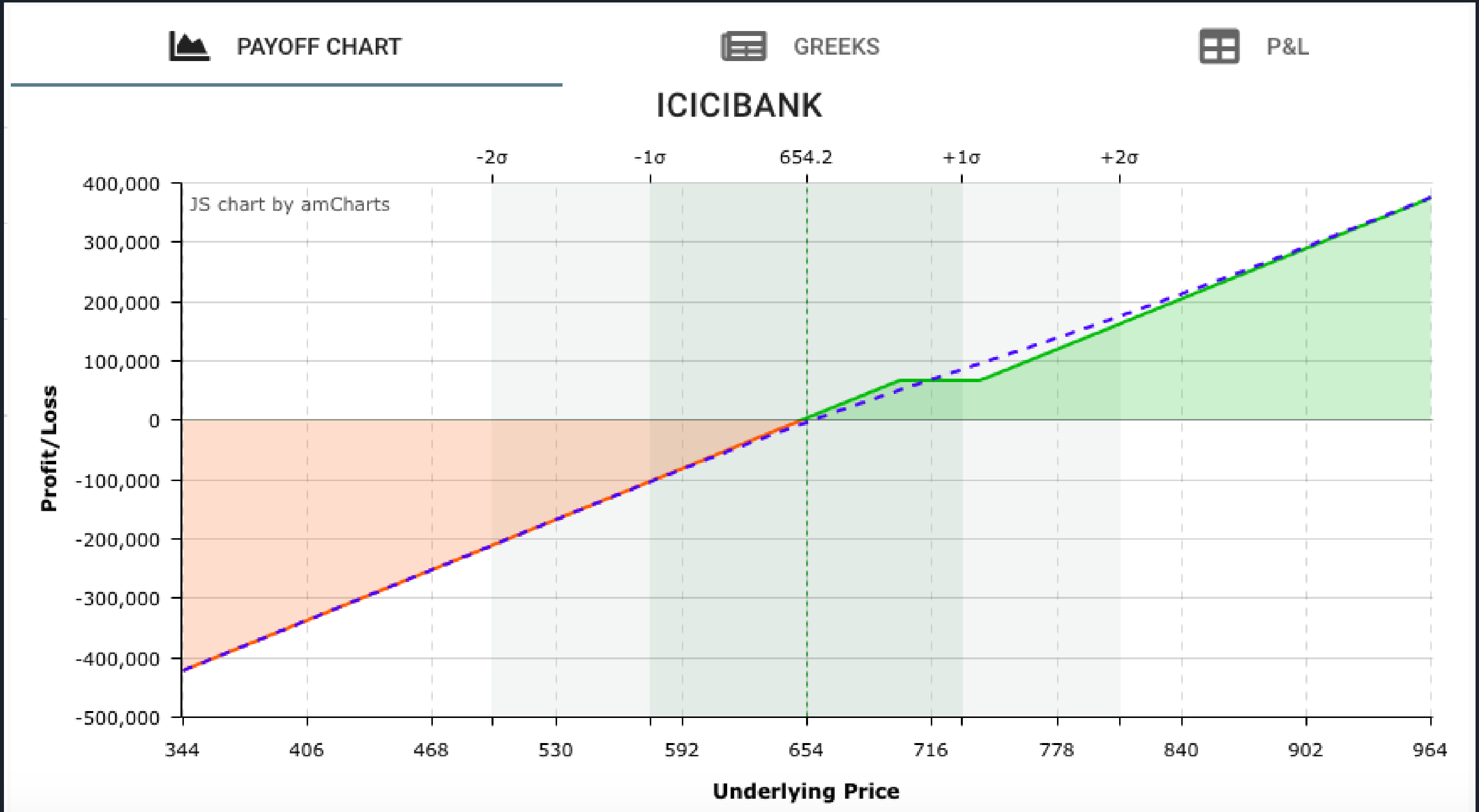
-1x 25MAR2021 700CE - ₹ 13.8 (0)

+1x 25MAR2021 FUTURES - ₹ 658 (+825)

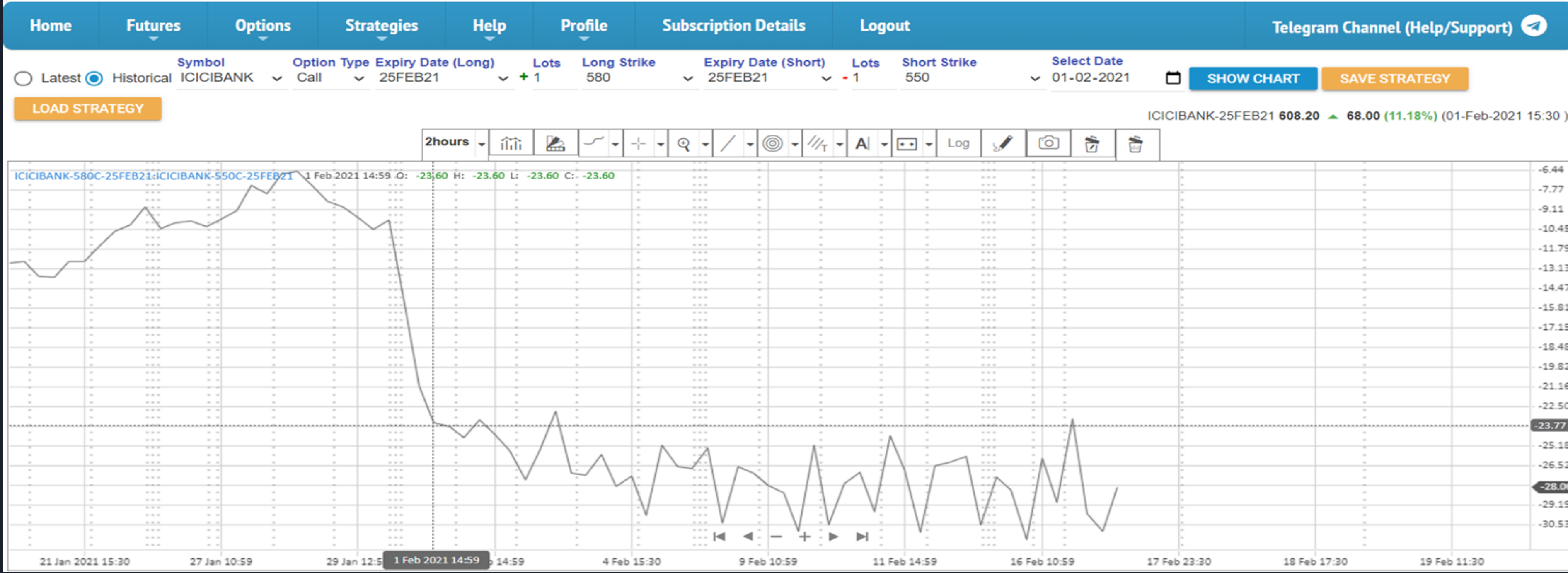
+1x 25MAR2021 740CE - ₹ 8.1 (0)

Prob. of Profit	50.62%
Max. Profit	₹ Undefined
Max. Loss	₹ Undefined
Max. RR Ratio	NA
Breakevens	653.0
Total PNL	₹ +825 (0.28%)
Net Credit	₹ +7,837.5
Estimated Margin/Premium	₹ +292,867

Modified method




Latest
Historical
Select Symbol
ICICIBANK
Expiry Date
25FEB21
Select Option Type
Call
Select Strike Price
550
Select Date
01-02-2021
SHOW CHART
ICICIBANK-25FEB21 608.20 68.00 (11.18%) (01-Feb-2021 15:30)
2hours
Log
ICICIBANK-550C-25FEB21 1 Feb 2021 10:59 O: 25.05 H: 35.45 L: 24.45 C: 32.25
EMA (Close, 13) Indicator: 20.76
EMA (Close, 34) Indicator: 23.26
124.84
118.80
112.77
105.49
100.71
94.67
92.14
88.64
82.61
76.57
70.54
64.51
58.47
52.44
46.41
40.37
34.34
28.31
25.15
22.28
16.24
13 Jan 2021 12:59
15 Jan 14:59
19 Jan 15:30
22 Jan 10:59
27 Jan 12:59
1 Feb 2021 10:59
2 Feb 15:30
5 Feb 10:59
9 Feb 12:59
11 Feb 14:59
16 Feb 10:59


Home
Futures
Options
Strategies
Help
Profile
Subscription Details
Logout
Telegram Channel (Help/Support)
Latest
Historical
Symbol
ICICIBANK
Option Type
Call
Expiry Date (Long)
25FEB21
Lots
+ 1
Long Strike
580
Expiry Date (Short)
25FEB21
Lots
- 1
Short Strike
550
Select Date
01-02-2021
SHOW CHART
SAVE STRATEGY
LOAD STRATEGY
ICICIBANK-25FEB21 608.20 68.00 (11.18%) (01-Feb-2021 15:30
2hours
Log
ICICIBANK-580C-25FEB21:ICICIBANK-550C-25FEB21 1 Feb 2021 14:59 O: -23.60 H: -23.60 L: -23.60 C: -23.60
21 Jan 2021 15:30
27 Jan 10:59
1 Feb 2021 14:59
4 Feb 15:30
9 Feb 10:59
11 Feb 14:59
16 Feb 10:59
17 Feb 23:30
18 Feb 17:30
19 Feb 11:30
-6.44
-7.77
-9.11
-23.77


Latest
Historical
Select Symbol
ICICIBANK
Expiry Date
25FEB21
Select Option Type
Call
Select Strike Price
580
Select Date
01-02-2021
SHOW CHART
ICICIBANK-25FEB21 608.20 68.00 (11.18%) (01-Feb-2021 15:30)
2hours
Log
ICICIBANK-580C-25FEB21 1 Feb 2021 10:59 O: 12.65 H: 20.05 L: 12.50 C: 17.15
EMA (Close, 13) Indicator: 10.74
EMA (Close, 34) Indicator: 12.32
MACD (Close, 9, 13, 25, Simple) Indicator: -3.032 IndicatorSignal: -3.616 Indicator Histogram: 0.584
Colored Volume Volume: 6,807,625
97.02
89.29
79.48
73.84
68.43
58.40
50.67
42.95
35.22
27.50
19.77
15.36
18.060
9.148
2.591
-5.845
6.97M
3.49M
4,125
13 Jan 2021 15:30
18 Jan 10:59
20 Jan 12:59
22 Jan 14:59
27 Jan 15:30
1 Feb 2021 10:59
3 Feb 14:59
8 Feb 10:59
10 Feb 12:59
15 Feb 10:59
17 Feb 12:59

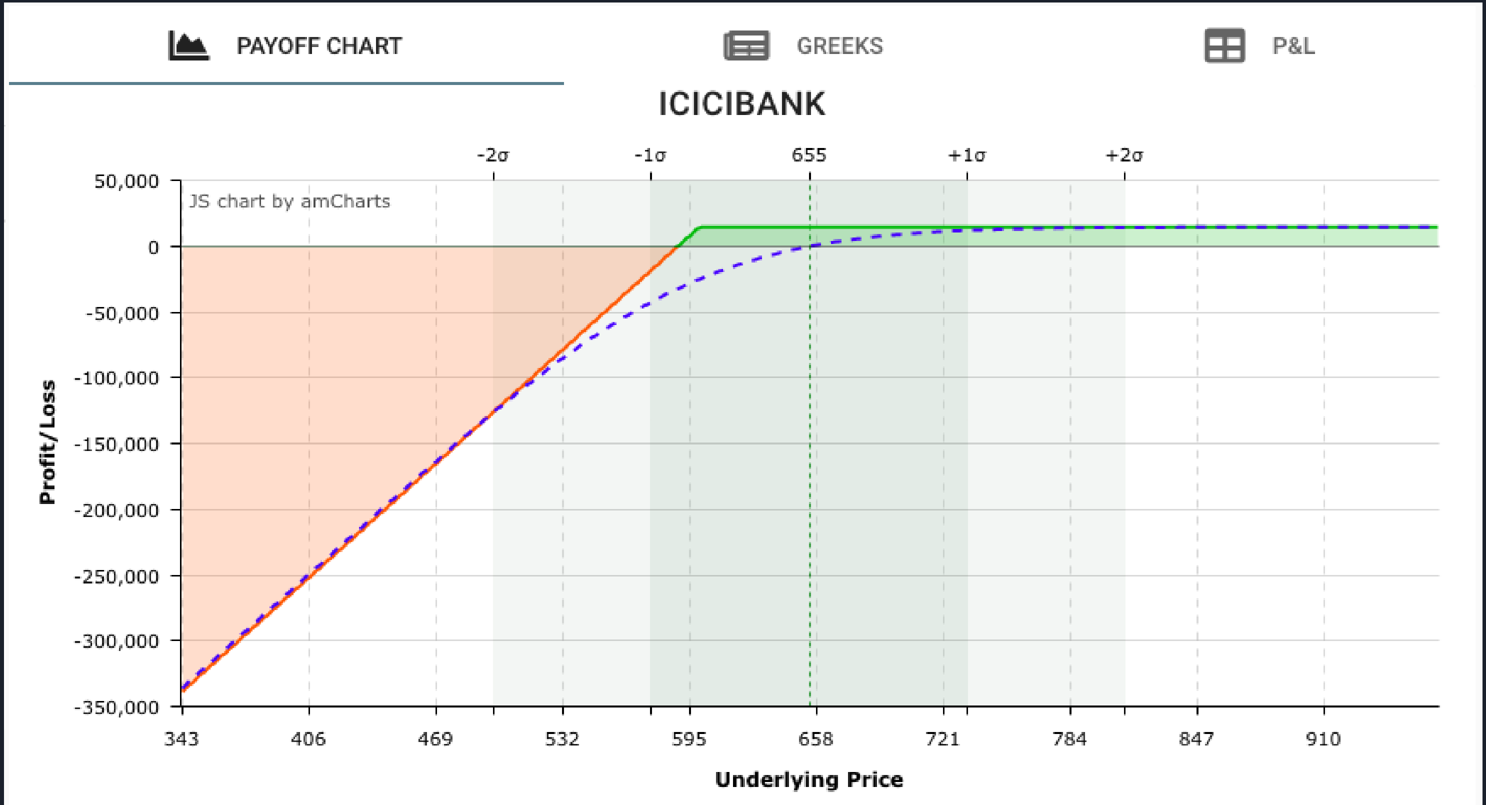
Cash secured put

- Cash secured puts are used when you have the intention to buy the stock at a price lower then the current price of the stock

- Example:

  Currently, ICICIBANK is trading at 660 and you have the view that ICICIBANK will not fall below 600 or want to buy ICICIBANK below 600 then you can sell the ICICIBANK 600 PE @ 10rs

Payoff



PAYOFF CHART
GREEKS
P&L
ICICIBANK
-2σ
-1σ
655
+1σ
+2σ
JS chart by amCharts
50,000
0
-50,000
-100,000
-150,000
-200,000
-250,000
-300,000
-350,000
Profit/Loss
343
406
469
532
595
658
721
784
847
910
Underlying Price

Stats

Strategy Positions RESET

-1x 25MAR2021 600PE - ₹ 10.5 (0)

Prob. of Profit	80.99%
Max. Profit	₹ +14,438 (8.77%)
Max. Loss	₹ Undefined
Max. RR Ratio	NA
Breakevens	590.0
Total PNL	₹ 0
Net Credit	₹ +14,437.5
Estimated Margin/Premium	₹ +164,677

Enter Symbol
1D
Views
Display
Studies
Layout
Events
Trade
SBIN
O: 216
H: 221
V: 138 M
C: 218.65
L: 214.75
D: 05/11/2020
411.75
400.00
350.00
300.00
250.00
200.00
ZERODHA
Sep
14
Oct
14
Nov
14
Dec
14
2021
14
Feb
14
Mar
14
Apr

Latest
Historical
Select Symbol
SBIN
Expiry Date
26NOV20
Select Option Type
Put
Select Strike Price
180
Select Date
18-10-2020
SHOW CHART
SBIN-26NOV20 197.10 — 0.00 (0.00%) (16-Oct-2020 15:30)
2hours
Log
SBIN-180P-26NOV20 2 Nov 2020 10:59 O: 5.60 H: 5.65 L: 4.05 C: 4.25
MACD (Close, 9, 13, 25, Simple) Indicator: 1.082 IndicatorSignal: 1.027 Indicator Histogram: 0.055
Colored Volume Volume: 2,154,000
13 Oct 2020 12:59
15 Oct 14:59
20 Oct 10:59
22 Oct 12:59
26 Oct 14:59
29 Oct 10:59
2 Nov 2020 10:59
4 Nov 15:30
9 Nov 10:59
11 Nov 14:59
13 Nov 15:30

Pros & Cons

Pros:

- You can earn from the premium even if you do not purchase the security
- You can buy the security at a price lower than the CMP

Cons:

- Max profit is limited in this even if the stock rises significantly

How to use a future Contract as a Hedge

- Suppose you have bought 250 shares of Reliance at 1800. So, Total investment will be 250*1800=Rs 4,50,000
- You have bought would mean you are long on the security
- Now, due to any reason you expect some volatility or some down move in your holding. So, you simply initiate a short Future of Reliance in order to protect your loss in the downside.
- If you have a stock portfolio and want to hedge using futures, first thing you have to do is calculate the Beta of your portfolio.

How to calculate no: of lots to short in Nifty

- Calculate Portfolio Beta
- Calculate hedge value (Portfolio Beta * Portfolio value)
- Contract value [Currently Nifty future is at 15300 and lot size is 75 = Rs 1147500]
- No: of lots = Hedge value/Contract value
- Example:

  Portfolio Value = Rs 50,00,000
  Portfolio Beta = 1.3
  Hedge Value = Rs 65,00,000
  No: of lots = Hedge value/Contract value = 65,00,000/1147500 = 5.66 lots