PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Presents

Understanding Options Derivatives Part 2

www.prudenceconsultants.com
Prudence.efc@gmail.com

By: Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA(Fin), CE, FIE(I), PhD
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 1. Preview

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Prelude

- A word of caution
- The meaning of Options: Part 1 and 2
- The concept of trading Options
- Summarizing the concept of trading Options
- Understanding "Strike price" and "Moneyness" of the Options
- Understanding Option chain: Part 1 and 2
- Understanding "Time Value" and "Intrinsic Value" of Options
- Practical aspects of Time value and Intrinsic value in Options

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Prelude

- When and how does an Option earn money?
- Profit and loss in a Call Option trade
- Profit and loss in a Put Option trade
- Summarizing the Profit and Loss in Option trades
- Choices available to an Option trader
- Hedging with the help of Options: 3 lessons
- Understanding Option Greeks: 3 lessons
- Practical applications of Option Greeks: 3 to 4 lessons
- Conclusion

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Disclaimer

LEGALLY REQUIRED DISCLAIMER:

THE INFORMATIONPRESENTED IN THIS VIDEO COURSE IS FOR EDUCATIONAL PURPOSES ONLY AND IS NOT INTENDED TO BE A RECOMMENDATION FOR ANY SPECIFIC INVESTMENT . TRADING IN DERIVATIVES LIKE FUTURES AND OPTIONS INVOLVE SUBSTANTIAL FINANCIAL RISK . INDUIDUALS ARE ADVISED TO CONSIDER ALL RELEVANT RISK FACTORS INCLUDING THEIR OWN PERSONAL FINANCIAL SITUATION BEFORE TRADING IN FUTURES AND OPTIONS OR ANY SUCH DERIVATIVES.

TRADING INVOLVES HIGH RISK AND IS NOT AN ALTERNATIVE TO INVESTMENT. IT IS NOT SUITABLE FOR PEOPLE WHO ARE LOOKING FOR INVESTMENT AVENUES. THE INSTRUCTOR ADVISES AND ENCOURAGES STUDENTS ENROLLING FOR THIS COURSE TO LEARN THE SUBJECT WELL, BE AWARE OF THE RISK INVOLVED AND TRADE IN VIRTUAL SIMULATED TRADING ENVIORNMENT FIRST WHERE NO FINANCIAL RISK MAY BE INCURRED.
STUDENTS AND INDIVIDUALS SHALL BE SOLELY RESPONSIBLE FOR ANY FINANCIAL OR OTHER LOSSES INCURRED IN THEIR PERSONAL ACCOUNT AS A RESULT OF TRADING IN DERIVATIVES . THE INSTRUCTOR OR PRUDENCE ENGINEERING AND FINANCIAL CONSULTANTS SHALL BE IN NO WAY RESPONSIBLE FOR ANY FINANCIAL OR OTHER LOSSES RESULTING OUT OF TRADES BASED ON THE CONTENTS OF THIS COURSE.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 3. The meaning of Options Part 1

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The meaning of Option

The first thing is to understand the meaning of Option...

The literal meaning of Option is ... "Choice".

Examples of Choice:- Yes ☐ Right ☐ True ☐ Good ☐

No ☐ Wrong ☐ False ☐ Bad ☐

Or it could be a "Choice"... To do a "Thing" or Not to do a "Thing"

And for a "Choice" to be traded in the market...
There has to be a Buyer of the Choice and a Seller of the Choice

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The meaning of Option

Let us say, the Choice being traded is:- To do a Thing or Not to do a Thing

Buyer of the Choice (Assume to be yourself)	Seller of the Choice (Assume it is me)
Buyer gets the Choice to... To do a thing or Not to do a thing	Seller takes the responsibility to ensure... Buyer's choice is fulfilled if he wants to do the thing
To get a choice of doing or not doing, buyer has to pay a small non refundable token money called "Premium"	For taking the responsibility of meeting buyer's choice, the seller gets a small non refundable "Premium"
At a later date, Buyer will exercise his choice if circumstances are favorable for him and he is gaining. Otherwise, he will forego his choice	If buyer gains, the seller looses as much. Choice of doing the thing is with buyer. So seller would always want that buyer should not exercise his choice. He can thus retain the non refundable premium
Buyer of the Choice has scope of unlimited gains. But loss is limited to the premium amount paid.	Seller takes the risk of unlimited loss. Gain is limited to the premium amount received.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The meaning of Option

Now what is that "Thing" of which you are getting a choice...

To do Or Not To do

Is it the Choice to... Buy ☐ Sell ☐ NO

Then what is the Choice?

The Choice is...
- To Buy ☐ / NOT to Buy ☐ ⇒ This Choice is called Call Option ⇒ There is a Buyer of this Choice; There is a Seller of this Choice
- To Sell ☐ / NOT to Sell ☐ ⇒ This Choice is called Put Option ⇒ There is a Buyer of this Choice; There is a Seller of this Choice

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 4. The meaning of Options Part 2

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The meaning of Option

Now the question is, why should a person buy or sell a choice?

Let us say, the consideration is...
"Mangoes @ $10 a dozen after 3 days by paying a premium of 50 cents today"

Choice No 1
Call Option

To Buy ☐
NOT to Buy ☐

Who will buy this Choice?
One who believes that market price of mangoes will increase in 3 days. So she would like to have a choice of buying @ today's price.

If price increases, the difference in price will be her profit. If price does not increase, she has the choice of NOT BUYING and looses the 50 cents premium paid

Option Buyer's Loss is limited to premium amount but profit can be unlimited

Who will Sell this Choice?
One who believes that market price of mangoes will NOT increase in 3 days. So she is not worried.

If price does not increases, buyer will not exercise her choice. Seller keeps the 50 cents as her profit. If it increases, then seller is at loss to that extent because she can not refuse to sell at $10 a dozen.

Option Seller's Profit is limited to premium amount but Loss can be unlimited

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The meaning of Option

Now the question is, why should a person buy or sell a choice?

Let us say, the consideration is...
"Mangoes @ $10 a dozen after 3 days by paying a premium of 50 cents today"

Choice No 2
Put Option

To Sell ☐
NOT to Sell ☐

Who will buy this Choice?
One who believes that market price of mangoes will decrease in 3 days. So she would like to have a choice of selling @ today's price.

If price decreases, she can have her choice of selling @ $10 and thus have a profit. If the price increases, she can refuse to sell @$10 because the choice is hers

Here also, Option Buyer's Loss is limited to premium amount but profit can be unlimited

Who will Sell this Choice?
One who believes that market price of mangoes will NOT decrease in 3 days. So she is not worried.

If price decreases, buyer of the choice will insist on selling the mangoes @ $10 and seller of the choice cannot refuse to accept the mangoes @ $10. If price does not decrease, then choice will not be exercised

Here also, Option Seller's Profit is limited to premium amount but Loss can be unlimited

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The meaning of Option

So far we have just understood the meaning of Options.

The concept of trading options we will see in the next lesson

Actual Trade

Technicalities

Concept

Meaning

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 5.
The concept of trading in Options

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The concept of Call Option

In the previous lesson we have seen...

There is a Choice to Buy or Not to Buy
This Choice, called as Call Option...
Can be Bought or Can be sold

There is a Choice to Sell or Not to Sell
This Choice, called as Put Option...
Can be Bought or Can be sold

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Concept of Options

In the previous lesson we have seen that the meaning of the word Option is…Choice

And when we talk of Option in context of stock market, we have two Options or two Choices to trade …

Choice No 1

To Buy ☐
NOT to Buy ☐

⇒ This Choice is called Call Option

- There is a Buyer of this Choice
- There is a Seller of this Choice

Choice No 2

To Sell ☐
NOT to Sell ☐

⇒ This Choice is called Put Option

- There is a Buyer of this Choice
- There is a Seller of this Choice

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The concept of Call Option

Let us consider a Car… Standing in the show room.

Today is 1st of Jun 2021. Price of this car today is $ 100,000 but subject to change every day depending upon demand

Buyer of the Choice (Option)

Buyer of the choice says:- "I want to have the choice of buying this car at $100,000 on or before 30 Jun 2021" (He believes that price will increase)

Seller of the Choice (Option)

Seller of the choice says:- "OK. I grant your choice. In return you pay me a non refundable premium of $2000" (He believes that price will reduce)

Since the choice is about buying… we know that choice of buying or Not buying is called as Call Option

The Buyer is said to have bought a Call Option by paying a premium of $2000

The Seller is said to have sold a Call Option by receiving a premium of $2000

Remember, what is being bought and sold here is NOT THE CAR but the CHOICE OF BUYING the car

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The concept of Call Option

Now 30th Jun 2021 has arrived.

Buyer of the Choice (Call Option)

Seller of the Choice (Call Option)

Let us say, the price of the car has not increased but come down from $100,000 to $80,000.

Will the buyer of the Option pay $100,000 to buy the car where he/she has the choice of NOT Buying? Certainly Not.

So the seller of Call Option gains the non refundable premium of $2000

But suppose, the price of the car has increased from $100,000 to $120,000

Now, will the buyer of the Option pay $100,000 to buy the car which is costing $120,000? Certainly

So the seller of Call Option looses (20000-2000)= $18000

Buyer of Call Option has limited loss But possibility of unlimited Profit

Seller of Call Option has limited gain But possibility of unlimited loss

The concept of Put Option

In the previous lesson we have seen...

The buyer of the Call Option had a choice
... To Buy the car at a predetermined price or
... Not to Buy it

If buying was profitable, then he/she would exercise the choice of buying and get the price difference
Otherwise, forego the choice and the premium paid

If the buyer of call option exercised the choice, the seller of call option was bound to honor it by paying the price difference. Otherwise, the premium received is his/her profit

If the buyer of call option exercised the choice, the seller of call option was bound to honor it by paying the price difference. Otherwise, the premium received is his/her profit

Buyer of Call Option had limited loss ie. the premium paid, but possibility of Profit was unlimited

Seller of Call Option had limited gain ie. the premium received, but possibility of loss was unlimited

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The concept of Put Option

Let us consider the same Car ... But now the choice of Selling

Today is 1st of Jun 2021. Price of this car today is $ 100,000
but subject to change every day depending upon demand

Buyer of the Choice (Option)

Seller of the Choice (Option)

Buyer of the choice says:- "I want to have the choice of Selling this car at $100,000 on or before 30 Jun 2021" (He believes that price will fall)

Seller of the choice says:- "OK. I grant your choice. In return you pay me a non refundable premium of $2000" (He believes that price will increase)

Since the choice is about Selling... we know that choice of Selling or Not Selling is called as Put Option

The Buyer is said to have bought a Put Option by paying a premium of $2000

The Seller is said to have sold a Put Option by receiving a premium of $2000

Remember, what is being bought and sold here is NOT THE CAR but the CHOICE OF SELLING the car

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The concept of Put Option

Now 30th Jun 2021 has arrived.

Buyer of the Choice (Put Option)

Seller of the Choice (Put Option)

Let us say, the price of the car has gone up from $100,000 to $120,000.

Will the buyer of the option sell the car for $100,000 when the price now is $120,000? He/She has a Choice. Certainly Not. So the seller of Put Option gains the non refundable premium of $2000

But suppose, the price of the car has come down from $100,000 to $80,000

Now, will the buyer of the option exercise the choice of selling it at $100,000? Certainly So the seller of Put Option looses (20000-2000)=$18000

Buyer of Put Option has limited loss
But possibility of unlimited Profit

Seller of Put Option has limited gain
But possibility of unlimited loss

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 6.
Summary of concepts in Options

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Summary of concepts in Option trades

- *An Option is basically a Choice.*
- *In stock market, Option does not mean the choice between Buy or Sell but there are two sets of choices, viz; Buy or Not to Buy and Sell or Not to Sell*
- *The choice and the right to exercise the choice remains with the Buyer of the Option for which he/she pays a premium to the Seller of the Option*
- *The Seller of the Option receives a premium but has no choice once he receives the premium. he/she has the obligation or the responsibility to honor the choice of the Option Buyer if the buyer chooses to exercise his choice before its expiry.*
- *The Seller of the Option is called as Option Writer because he/she "literally writes the assurance" of honoring the choice for the Option Buyer.*

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Summary of concepts in Option trades

	CALL OPTION	PUT OPTION
BUYER	❖ Is Bullish. Thinks price will go up ❖ Has choice but no obligation to Buy ❖ Pays the premium ❖ Max loss limited to premium ❖ Can just walk away if not favorable	❖ Bearish. Thinks price will go down ❖ Has choice but no obligation to Sell ❖ Pays the premium ❖ Max loss limited to premium ❖ Can just walk away if not favorable
SELLER	❖ Bearish. Thinks price will Not go up ❖ No choice. Only obligation to Sell ❖ Receives the premium ❖ Possibility of unlimited loss ❖ Can not just walk away	❖ Bullish. Thinks price will Not go down ❖ No choice. Only obligation to Buy ❖ Receives the premium ❖ Possibility of unlimited loss ❖ Can not just walk away

Today's price @100,000
To Buy or Not to Buy
To Sell or Not to Sell

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 7.
Strike price and moneyness of Options

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Strike price and moneyness : ATM, ITM and OTM

Call Option Buyer wanted "Choice" of Buying the car @ $100,000....
That means, he wanted to strike a deal @ the Spot price or Current market price of the underlying asset.

Call Option

	Strike Price	Premium
ITM	$85,000	$16000
ITM	$90,000	$11200
ITM	$95,000	$6500
ATM	$100,000	$2,000
OTM	$105,000	$1500
OTM	$110,000	$1100
OTM	$115,000	$800

As you move further "Out of the money", the premium reduces
As you move more "In the money", the premium increases

- When Strike price is almost the same as market price of the asset, the Option is said to be... "AT the Money" or ATM
  Strike Price = Spot price
- When Strike price is NOT yet giving money to the Buyer, the Option is said to be... "Out of the Money" or OTM
  For OTM Call Option: Strike Price > Spot price
- When Strike price is already giving money to the Buyer, (is within the spot price) the Option is said to be... "In the Money" or ITM
  For ITM Call Option: Strike Price < Spot price

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Strike price and moneyness : ATM, ITM and OTM

Put Option Buyer wanted "Choice" of Selling the car @ $100,000....
That means, he wanted to strike a deal @ the Spot price or Current market price of the underlying asset.

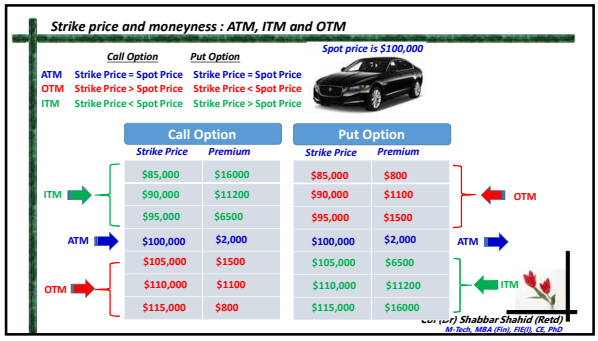
Put Option

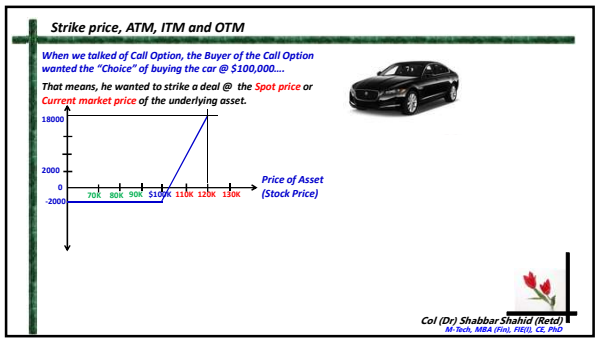
	Strike Price	Premium
OTM	$85,000	$800
OTM	$90,000	$1100
OTM	$95,000	$1500
ATM	$100,000	$2,000
ITM	$105,000	$6500
ITM	$110,000	$11200
ITM	$115,000	$16000

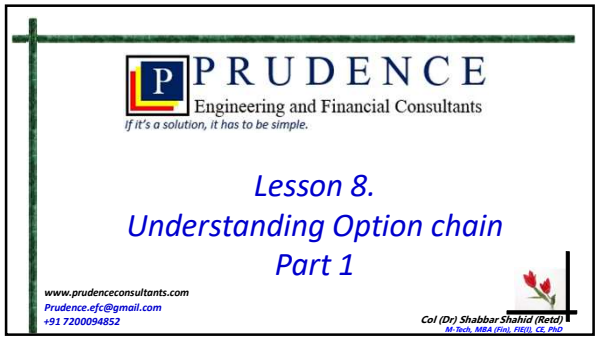
As you move further "Out of the money", the premium reduces
As you move more "In the money", the premium increases

- When Strike price is almost the same as market price of the asset, the Option is said to be... "AT the Money" or ATM
  Strike Price = Spot price
- When Strike price is NOT yet giving money to the Buyer, the Option is said to be... "Out of the Money" or OTM
  For OTM Put Option: Strike Price < Spot price
- When Strike price is already giving money to the Buyer,(is within the spot price) the Option is said to be... "In the Money" or ITM
  For ITM Call Option: Strike Price > Spot price

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Strike price and moneyness : ATM, ITM and OTM
Call Option
Put Option
ATM Strike Price = Spot Price Strike Price = Spot Price
OTM Strike Price > Spot Price Strike Price < Spot Price
ITM Strike Price < Spot Price Strike Price > Spot Price
Spot price is $100,000
Call Option
Put Option
Strike Price
Premium
$85,000 $16000 $85,000 $800
$90,000 $11200 $90,000 $1100
$95,000 $6500 $95,000 $1500
$100,000 $2,000 $100,000 $2,000
$105,000 $1500 $105,000 $6500
$110,000 $1100 $110,000 $11200
$115,000 $800 $115,000 $16000
ITM
ATM
OTM
OTM
ATM
ITM
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Strike price, ATM, ITM and OTM
When we talked of Call Option, the Buyer of the Call Option wanted the "Choice" of buying the car @ $100,000....
That means, he wanted to strike a deal @ the Spot price or Current market price of the underlying asset.
18000
2000
0
-2000
70K 80K 90K $100K 110K 120K 130K
Price of Asset (Stock Price)
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.
Lesson 8.
Understanding Option chain
Part 1
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Understanding the Option chain

Stock or a Share of Tata Motors
Each share costing 337 each

The Share is Real. It is the underlying asset...

An imaginary or notional basket
of 2850 x Tata Motors shares
valued at 960,450

... But this basket is imaginary. It is called the derivative

For a clear understanding of:-
The meaning of Derivatives
And
Investing in Shares vis-a-vis Trading in Derivatives

Complete Understanding of Stock Futures: Derivatives Part 1
Part 1 of Trading in **Futures** and Options. Future trading concepts like Stop loss, Trigger, Arbitration, Hedging & more.

Please see the FREE PREVIEW Lessons of my course...
Complete Understanding of Stock Futures: Derivatives Part 1
Or click on the link in the pdf attached with the last lesson of this course.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Understanding the Option chain

Stock or a Share of Tata Motors
Each share costing 337 each

x 2850 960,450

An imaginary or notional basket
of 2850 x Tata Motors shares

The Share is Real. It is the underlying asset...
... But this basket is imaginary. It is called the derivative

As the share price increase or decrease...
... The value of this imaginary basket will increase or decrease

The share remains always...
... This imaginary basket has an expiry date

The Choice of Buying this imaginary basket is called CALL OPTION	There is a Buyer of Call Option who pays a premium and takes limited Risk
	There is a Seller of Call Option who receives a premium & takes unlimited Risk
The Choice of Selling this imaginary basket is called PUT OPTION	There is a Buyer of Put Option who pays a premium and takes limited Risk
	There is a Seller of Put Option who receives a premium & takes unlimited Risk

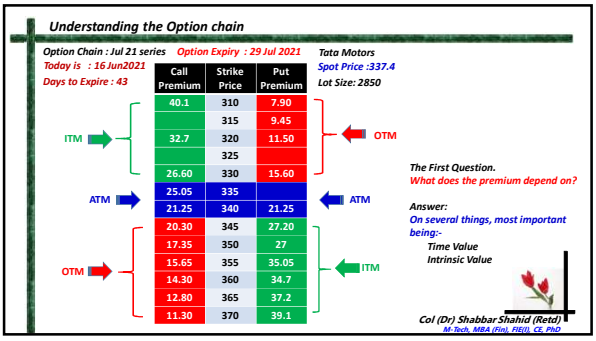
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

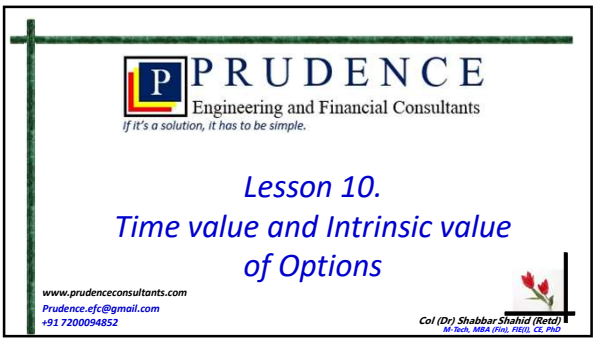
PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

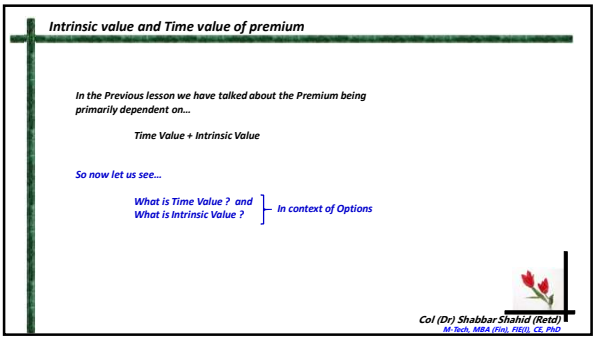
Lesson 9.
Understanding Option chain
Part 2

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Understanding the Option chain
Option Chain : Jul 21 series
Option Expiry : 29 Jul 2021
Today is : 16 Jun2021
Days to Expire : 43
Tata Motors
Spot Price :337.4
Lot Size: 2850
Call Premium
Strike Price
Put Premium
40.1 310 7.90
315 9.45
32.7 320 11.50
325
26.60 330 15.60
25.05 335
21.25 340 21.25
20.30 345 27.20
17.35 350 27
15.65 355 35.05
14.30 360 34.7
12.80 365 37.2
11.30 370 39.1
ITM
OTM
ATM
ATM
OTM
ITM
The First Question.
What does the premium depend on?
Answer:
On several things, most important being:-
Time Value
Intrinsic Value
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.
Lesson 10.
Time value and Intrinsic value of Options
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Intrinsic value and Time value of premium
In the Previous lesson we have talked about the Premium being primarily dependent on...
Time Value + Intrinsic Value
So now let us see...
What is Time Value ? and
What is Intrinsic Value ?
In context of Options
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Option Expiry : 24 Jun 2021 (8 days) Option Expiry : 29 Jul 2021(43 days)

Strike Price	Strike Price
310	310
315	315
320	320
325	325
330	330
335	335
340	340
345	345
350	350
355	355
360	360
365	365
370	370

Time Value of Options

Tata Motors
Spot Price :337.4
Lot Size: 2850
Today is : 16 Jun2021

More the number of days to expiry, more the chances of your target price reaching and therefore, more the time value component in the premium.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors
Spot Price :337.4
Lot Size: 2850
Expiry : 29 Jul 2021 *Intrinsic Value of Options*

If the strike price is equal to the stock's price in the market, the option is said to be "At The Money"

If the strike price of the option is profitable as compared to the price of the stock, the option is "In the Money"

If the strike price of the option is NOT profitable as compared to the price of the stock, the option is said to be "Out of The Money"

So then, what is the INTRINSIC Value ?

The intrinsic value is the amount by which the strike price of an option is profitable or In The Money

For example: Out of 40.1 premium, 27.4 is the intrinsic value and only 12.7 is the Time value

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors
Spot Price :337.4
Lot Size: 2850
Expiry : 29 Jul 2021

If you want to see in terms of a Formula, then the Formula and Calculation of Intrinsic Value is ...

For Call Options

Intrinsic Value = UAP–CSP
where UASP=Underlying Assets Spot Price
CSP=Call Strike Price

Example: Intrinsic Value = 337.4 -310= 27.4

For Put Options

Intrinsic Value = PSP–UASP
where UASP=Underlying Assets Spot Price
PSP=Put Strike Price

Example: Intrinsic Value = 370 – 337.4 = 32.6

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 11.
Practical aspects of Intrinsic value and Time value

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors
Spot Price :337.4
Lot Size: 2850
Expiry : 29 Jul 2021

For Call Options
Intrinsic Value = UASP–CSP
Example: Intrinsic Value = 337.4 -310= 27.4 and 40.1- 27.4 = 12.7 is the Time Value

For Put Options
Intrinsic Value = PSP–UASP
Example: Intrinsic Value = 370 – 337.4 = 32.6 and 39.1-32.6= 6.5 is the Time Value

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Time Value	Intrinsic Value	Call Premium	Strike Price
12.70	27.40	40.1	310
			315
15.30	17.40	32.7	320
			325
19.2	7.40	26.60	330
22.65	2.40	25.05	335
21.25	0	21.25	340
20.30	0	20.30	345
17.35	0	17.35	350
15.65	0	15.65	355
14.30	0	14.30	360
12.80	0	12.80	365
11.30	0	11.30	370

Tata Motors
Spot Price :337.4
Lot Size: 2850
Expiry : 29 Jul 2021

So what do we learn from this?

If the Option is ATM or OTM, the intrinsic value is zero. The entire premium is the time value.

As the Option gets more and more ITM, the intrinsic value keeps increasing and the time value keeps reducing.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Strike Price	Put Premium	Intrinsic Value	Time Value
310	7.90	0	7.90
315	9.45		
320	11.50	0	11.50
325			
330	15.60	0	15.60
335			
340	21.25	2.60	18.65
345	27.20	7.60	19.60
350	27	12.6	14.4
355	35.05	17.60	17.45
360	34.7	22.60	12.1
365	37.2	27.6	9.6
370	39.1	32.60	6.5

Tata Motors
Spot Price :337.4
Lot Size: 2850
Expiry : 29 Jul 2021

So what do we learn from this?

If the Option is ATM or OTM, the intrinsic value is zero. The entire premium is the time value.

As the Option gets more and more ITM, the intrinsic value keeps increasing and the time value keeps reducing.

This is an imperfection or an abrasion

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Intrinsic value and Time value of premium

Time Value	Intrinsic Value	Call Premium	Strike Price	Put Premium	Intrinsic Value	Time Value
12.70	27.40	40.1	310	7.90	0	7.90
			315	9.45		
15.30	17.4	32.7	320	11.50	0	11.50
			325			
19.2	7.4	26.60	330	15.60	0	15.60
22.65	2.40	25.05	335			
21.25	0	21.25	340	21.25	2.60	18.65
20.30	0	20.30	345	27.20	7.60	19.60
17.35	0	17.35	350	27	12.6	14.4
15.65	0	15.65	355	35.05	17.60	17.45
14.30	0	14.30	360	34.7	22.60	12.1
12.80	0	12.80	365	37.2	27.6	9.6
11.30	0	11.30	370	39.1	32.60	6.5

Tata Motors
Spot Price :337.4
Lot Size: 2850
Expiry : 29 Jul 2021

This is an imperfection or an abrasion

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 12.
When and how does an option earn money?

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

When and How does an Option earn money

When and how does an Option earn money for me?

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

- ✓ *Before we answer this question .....*
- ✓ *The Premium does not remain constant*
- ✓ *Factors like Time Decay, fall in asset price, negative news, negative sentiments bring down the premium*
- ✓ *Factors like increase in asset price, Positive news, Positive sentiments increase the premium*
- ✓ *Change in Premium is not uniform across the Option Chain*
- ✓ *No contact between Buyer and Seller*
- ✓ *The concept of margin money must be understood*
- ✓ *It is good to know the Option Greeks*

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

When and How does an Option earn money

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors *Spot Price :337.4*
Lot Size: 2850 *Expiry : 29 Jul 2021*

Are you hedging? or *Are you trading ?*

If you are trading, there are two situations or broad strategies

Situation 1

You trade an Option and wait till the expiry date

Your profit or loss will depend upon whether the quantum and direction of asset's price movement has been as per your perception or against your perception

Situation 2

You trade an Option and want to exit before expiry

Your profit or loss will depend upon whether the change in premium is favorable to you or not

We shall discuss both the situations in detail...

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 13.
Profit and loss in a Call option trade

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in a Call Option trade

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors Spot Price :337.4
Lot Size: 2850 Expiry : 29 Jul 2021

Call Option Buyer

Buys option at strike price of 350.
Pays premium 17.35

Has the rights to exercise option but no obligation to do so.

Has Bullish view

Call Option Seller

Sells option at strike price of 350.
Receives premium 17.35 (Blocks Margin)

Has the obligation to honor the option but no rights.

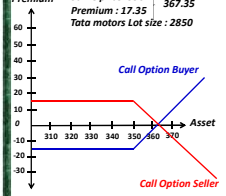
Has Bearish view

At expiry there are 3 possibilities...
Price of Asset may be = 350
Price of asset may be > 350
Price of asset may be <350

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in an Option trade

Premium
Strike price: 350
Premium : 17.35
Tata motors Lot size : 2850
367.35



Let us say, at expiry...

Asset price is equal to or less then 350...
Buyer is in loss of premium. Seller is in gain of premium
(17.35 x 2850 = 494475)

Asset price is 350+17.35=367.35
Buyer and Seller at Break even

Asset price goes above 367.35
Buyer of call option starts gaining. Possibility unlimited.....
Seller of call option starts loosing . Possibility unlimited.....

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in a Call Option trade

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors Spot Price :337.4
Lot Size: 2850 Expiry : 29 Jul 2021

Premium changes: strike price 350 between 16 Jun to 29 Jul 2021	Call Option Buyer	Call Option Seller
Premium is 17.35	Loss 17.35 x 2850 = 49448	Gain 17.35 x 2850 = 49448
Premium goes to 37.35	May square off with a gain of 20 x 2850= 57000	May square off with a loss 57000
Premium goes to 117.35	May square off with a gain of 285000	May square off with a loss 285000
Premium goes down to zero	Max loss is 17.35 x 2850 = 49448 Max loss = 49448	Gains 49448 Max loss is unlimited

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 14.
Profit and loss in a Put option trade

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in a Put Option trade

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors *Spot Price :337.4*
Lot Size: 2850 *Expiry : 29 Jul 2021*

Put Option Buyer

Buys option at strike price of 330.
Pays premium 15.6
Has the rights to exercise option but no obligation to do so.
Has Bearish view

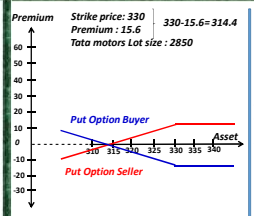
Put Option Seller

Sells option at strike price of 330.
Receives premium 15.6 (Blocks Margin)
Has the obligation to honor the option but no rights.
Has Bullish view

At expiry there are 3 possibilities...
Price of Asset may be = 330
Price of asset may be > 330
Price of asset may be <330

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in a Put Option trade



Strike price: 330
Premium : 15.6
Tata motors Lot size : 2850
330-15.6=314.4

Let us say, at expiry...
Asset price is equal to or more then 330...
Buyer is in loss of premium. Seller is in gain of premium (15.6 x 2850 = 44460)
Asset price is 330-15.6= 314.4
Buyer and Seller at Break even
Asset price goes below 314.4
Buyer of Put option starts gaining. Possibility unlimited.....
Seller of Put option starts loosing . Possibility unlimited.....

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in a Put Option trade

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Tata Motors Spot Price :337.4
Lot Size: 2850 Expiry : 29 Jul 2021

Premium changes: strike price 330 between 16 Jun to 29 Jul 2021

	Put Option Buyer	Put Option Seller
Premium is 15.60	Loss 15.6 x 2850 = 44460	Gain 15.6x 2850 = 44460
Premium goes to 35.60	May square off with a gain of 20 x 2850= 57000	May square off with a loss 57000
Premium goes to 115.60	May square off with a gain of 285000	May square off with a loss 285000
Premium goes down to zero	Max loss is 15.60 x 2850 = 44460	Gains 44460
	Max loss = 44460	Max loss is unlimited

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
if it's a solution, it has to be simple.

Lesson 15.
Summarizing Profit and loss in Call and Put option trade

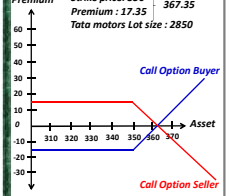
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

The Profit and Loss in an Option trade

CALL OPTION TRADE

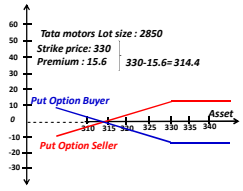
Premium
Strike price: 350
Premium : 17.35
Tata motors Lot size : 2850
367.35



In a Call option trade, the profit/loss remains constant and equal to the premium as long as the asset price remains below the strike price

PUT OPTION TRADE

Premium
Tata motors Lot size : 2850
Strike price: 330
Premium : 15.6
330-15.6= 314.4



In a Put option trade, the profit/loss remains constant and equal to the premium as long as the asset price remains above the strike price

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 16.
Choices available to an option trade

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Various choices available to an Option buyer or Option writer

In this lecture…
… I would be confusing you

And I challenge you to defeat me…
… by not getting confused

And if you are able to defeat me…
… I will consider it as my victory

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Various choices available to an Option buyer or Option writer

Tata Motors *Spot Price :337.4*
Lot Size: 2850 *Expiry : 29 Jul 2021*

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

If I want to trade in options, what all can I do?

Buy a call option *Sell a put option*

Buy a call option

Sell a call option *Sell a put option*

Buy a put option

Buy put option *Sell a call option*

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Various choices available to an Option buyer or Option writer

Tata Motors
Lot Size: 2850
Spot Price :337.4
Expiry : 29 Jul 2021

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

If I want to trade in options, what all can I do?

I can buy ATM Call Option
I can sell ATM Call Option
I can buy ATM Put Option
I can sell ATM Put Option
I can buy OTM Call Option
I can sell OTM Call Option
I can buy OTM Put Option
I can sell OTM Put Option
I can buy ITM Call Option
I can sell ITM Call Option
I can buy ITM Put Option
I can sell ITM Put Option
I can use them in combination with Futures

I can buy opposing combinations of any of them
I can sell opposing combinations of any of them
I can buy complementary combinations of any of them
I can sell complimentary combinations of any of them

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

A different reason for every trade

There are numerous choices of strike price and even more combinations available for trade

If we use Options in combination with Futures, we get even more combinations to trade...

Unless one is speculating, every trader is wise and every trade has a logic and reasoning for his trade

What may appear profitable to a buyer may appear loss making proposition to the seller and vice versa. Only then a trade can happen

Why do I do, what I do?

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 17.
Hedging with the help of options
Part 1

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Hedging with the help of Options

Tata Motors
Lot Size: 2850
Spot Price :337.4
Expiry : 29 Jul 2021

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Let us say, I holding 3000 shares of TM in my portfolio
My purchase price: 200. Current price 337
I am in a profit of 411,000
The government is going to announce some policy on automobiles on 25 Jul 2021.
I believe the policy decision may cause the price of TM to fall temporarily
I can absorb some loss till 330 but not below that...What should I do?

Buy Put Option@330. Pay a premium of 15.6 x 2850= 44460
Limited Loss. But want to keep upside open, just in case price increases

Or

Sell a Call Option@330. Receive a premium of 26.6 x 2850= 75810
I am very confident that price will not go up, so willing to take unlimited Risk

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 18.
Hedging with the help of options
Part 2

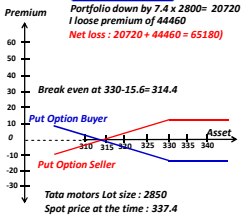
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Hedging with the help of Options

Buy Put Option@330. Pay a premium of 15.6 x 2850= 44460
Limited Loss. But want to keep upside open, just in case price increases

Expiry @ 330
Portfolio down by 7.4 x 2800= 20720
I loose premium of 44460
Net loss : 20720 + 44460 = 65180)



Expiry < 330, Say 300
Portfolio down by 37.4 x 2800= 104,720
Gain in Put option: (314.4-300) x 2800= 40320
Net Loss: 104720 – 40320 = 64400

Let us say expiry @ 150
Portfolio down by 187.4 x 2800= 524,720
Gain in Put option: (314.4-150) x 2800= 460320
Net Loss: 524720 – 460320 = 64400

Expiry > 330, Say 400
Loss of Premium: 15.6 x 2800= 44460
Portfolio gone up by : (400-337.4) x2800= 175280

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 19.
Hedging with the help of options
Part 3

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Hedging with the help of Options

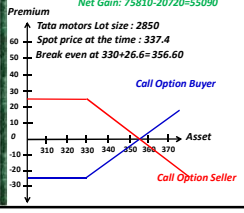
Sell a Call Option@330. Receive a premium of 26.6 x 2850= 75810
I am very confident that price will not go up, so willing to take unlimited Risk

Expiry @ 330
Portfolio down by 7.4 x 2800= 20720
Gain of premium of 75810
Net Gain: 75810-20720=55090

Expiry < 330, Say 300
Portfolio down by 37.4 x 2800= 104,720
I gain a premium of 75810
Net Loss: 104720-75810= 28910

Let us say expiry @ 150
Portfolio down by 187.4 x 2800= 524,720
I gain a premium of 75810
Net Loss: 524720-75810= 448,910

Expiry > 330, Say 400
Portfolio gone up by : (400-337.4) x2800= 175280
Loss in Option: (400-356.6) x 2800= 121520



Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Hedging with the help of Options

Bought Put Option@330.	*Or*	*Sold Call Option@330.*
Expiry @ 330		**Expiry @ 330**
Portfolio down by 20720		*Portfolio down by 20720*
I loose premium of 44460		*Gain of premium 75810*
Net loss: 65180		*Net Gain : 55090*
Expiry @300		**Expiry @300**
Portfolio down by 104,720		*Portfolio down by 104,720*
Gain in Put option 80320		*Gain of premium 75810*
Net Loss: 64400		*Net Loss: 28910*
Expiry @ 150		**Expiry @ 150**
Portfolio down by 524,720		*Portfolio down by 524,720*
Gain in Put option 460320		*Gain of premium 75810*
Net Loss: 64400		*Net Loss 448910*
Expiry @ 400		**Expiry @ 400**
Loss of Premium 44460		*Portfolio gone up by 175280*
Portfolio gone up by 175280		*Loss in Option 121520*

This is not called as Loss but it is the Cost of Hedging the Portfolio

This is the loss due to improper hedging

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 20.
Understanding Option Greeks
Part 1

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks

If somebody says- I know what are Options but I do not know what are Option Greeks…

It is like saying – I am a deep sea diver but I do not know to swim…

What are Option Greeks?

Before we answer this question, we need to answer…
What are the factors which cause the Option premium to change?

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks

Spot Price :337.4 *Days to Expiry 43*
Today: 16 Jun 2021 *Expiry : 29 Jul 2021*

Tata Motors Options

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

What causes the premium to change?

1. *Spot Price*

If Spot price increases…
Call premium will Increases
Put premium will Decrease

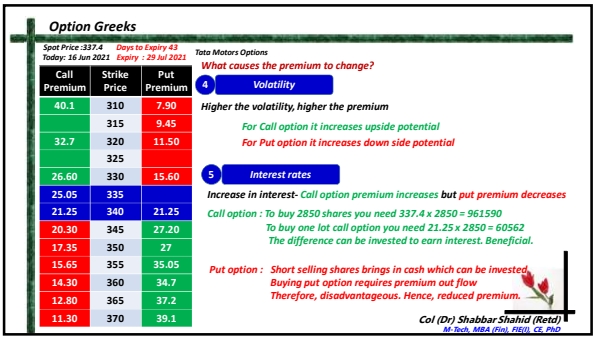
2. *Time Decay*

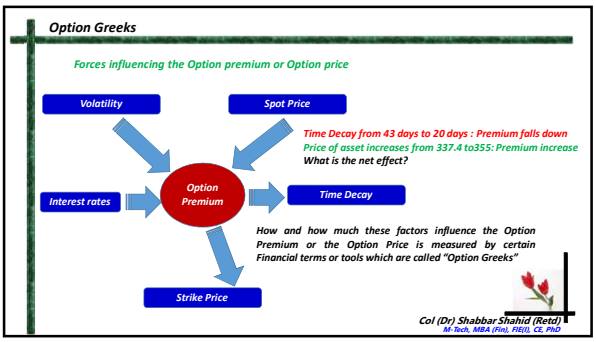
As the number of days to expiry become less…
The premium will keep reducing

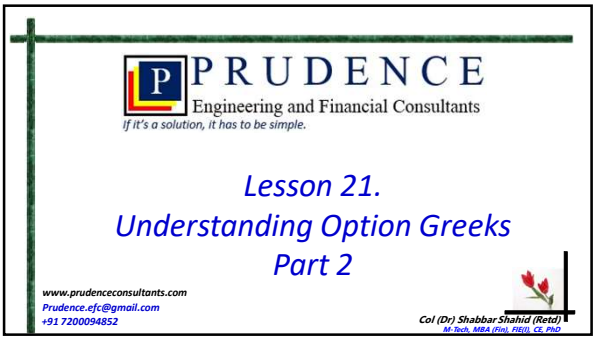
3. *Strike Price*

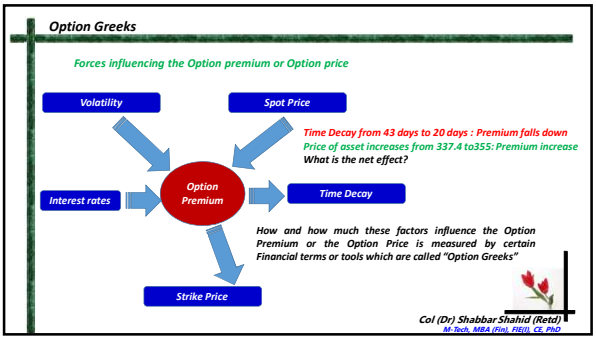
Determines intrinsic value. As the Option becomes ITM, premium increases
More ITM: Intrinsic value up, Time value down - Total premium increases
More OTM: Intrinsic value zero, Time value down - Total premium decreases

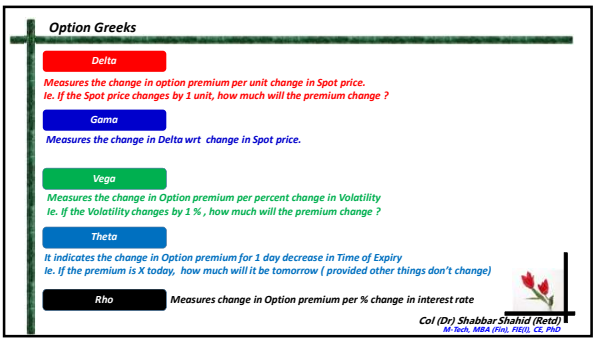
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

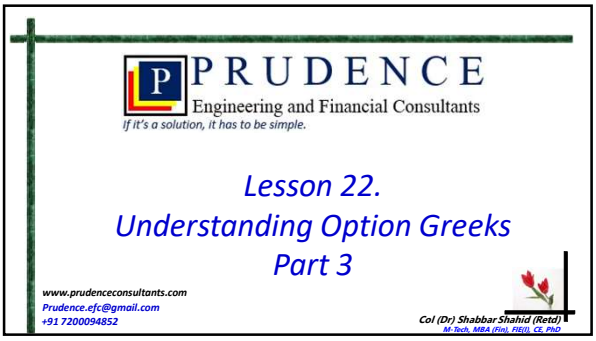

Option Greeks
Spot Price :337.4
Today: 16 Jun 2021
Days to Expiry 43
Expiry : 29 Jul 2021
Tata Motors Options
Call Premium | Strike Price | Put Premium
40.1 | 310 | 7.90
315 | 9.45
32.7 | 320 | 11.50
325
26.60 | 330 | 15.60
25.05 | 335
21.25 | 340 | 21.25
20.30 | 345 | 27.20
17.35 | 350 | 27
15.65 | 355 | 35.05
14.30 | 360 | 34.7
12.80 | 365 | 37.2
11.30 | 370 | 39.1
What causes the premium to change?
4 Volatility
Higher the volatility, higher the premium
For Call option it increases upside potential
For Put option it increases down side potential
5 Interest rates
Increase in interest- Call option premium increases but put premium decreases
Call option : To buy 2850 shares you need 337.4 x 2850 = 961590
To buy one lot call option you need 21.25 x 2850 = 60562
The difference can be invested to earn interest. Beneficial.
Put option : Short selling shares brings in cash which can be invested.
Buying put option requires premium out flow
Therefore, disadvantageous. Hence, reduced premium.
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

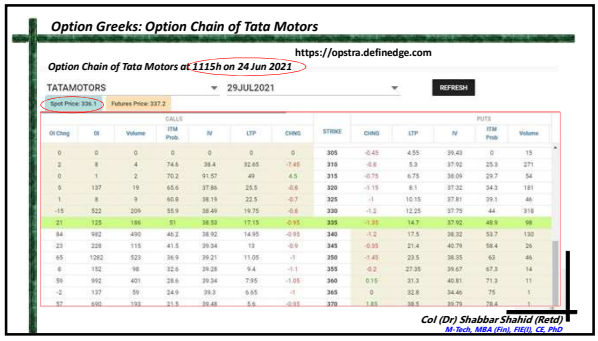

Option Greeks
Forces influencing the Option premium or Option price
Volatility
Spot Price
Interest rates
Option Premium
Time Decay
Strike Price
Time Decay from 43 days to 20 days : Premium falls down
Price of asset increases from 337.4 to355: Premium increase
What is the net effect?
How and how much these factors influence the Option Premium or the Option Price is measured by certain Financial terms or tools which are called "Option Greeks"
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

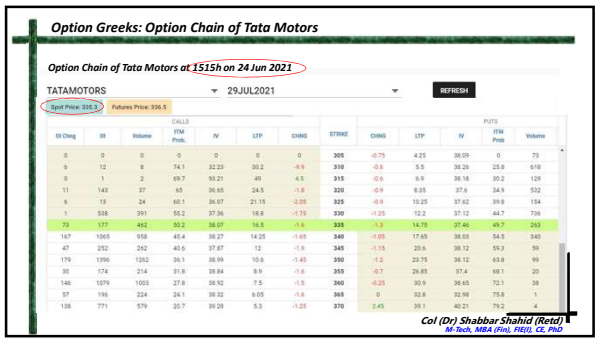

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.
Lesson 21.
Understanding Option Greeks
Part 2
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

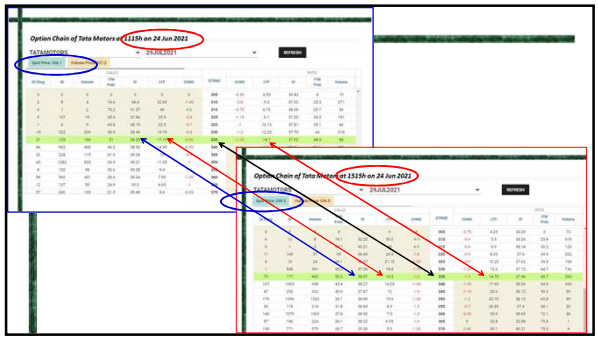

Option Greeks
Forces influencing the Option premium or Option price
Volatility
Spot Price
Time Decay from 43 days to 20 days : Premium falls down
Price of asset increases from 337.4 to355: Premium increase
What is the net effect?
Interest rates
Option Premium
Time Decay
How and how much these factors influence the Option Premium or the Option Price is measured by certain Financial terms or tools which are called "Option Greeks"
Strike Price
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

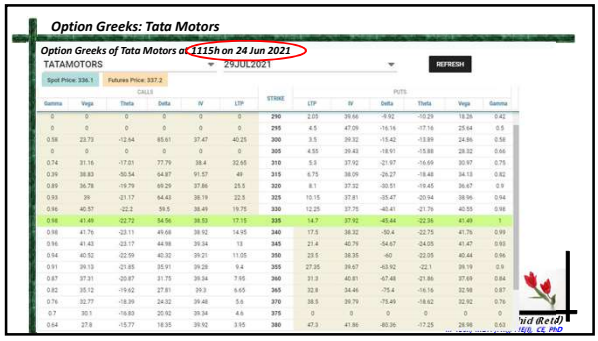

Option Greeks
Delta
Measures the change in option premium per unit change in Spot price.
Ie. If the Spot price changes by 1 unit, how much will the premium change ?
Gama
Measures the change in Delta wrt change in Spot price.
Vega
Measures the change in Option premium per percent change in Volatility
Ie. If the Volatility changes by 1 % , how much will the premium change ?
Theta
It indicates the change in Option premium for 1 day decrease in Time of Expiry
Ie. If the premium is X today, how much will it be tomorrow (provided other things don't change)
Rho
Measures change in Option premium per % change in interest rate
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

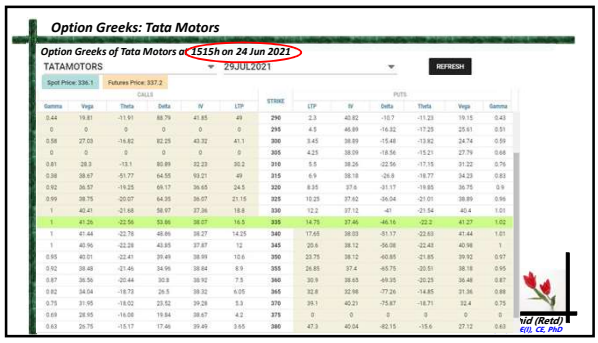

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.
Lesson 22.
Understanding Option Greeks
Part 3
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

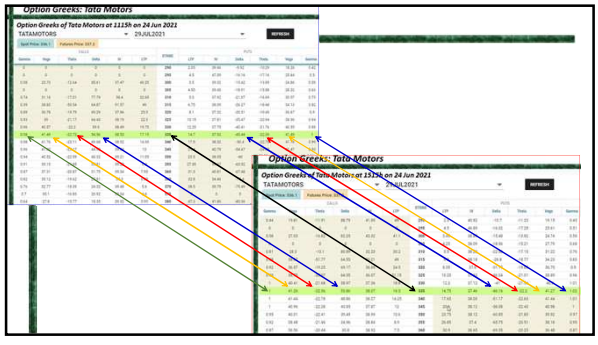

Option Greeks: Option Chain of Tata Motors
https://opstra.definedge.com
Option Chain of Tata Motors at 1115h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH
Spot Price: 336.1
Futures Price: 337.2
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

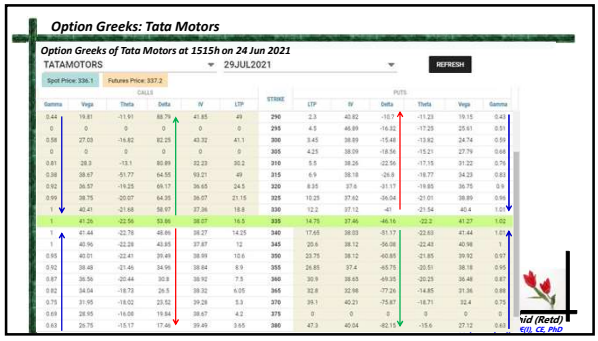

Option Greeks: Option Chain of Tata Motors
Option Chain of Tata Motors at 1515h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH
Spot Price: 335.3
Futures Price: 336.5
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

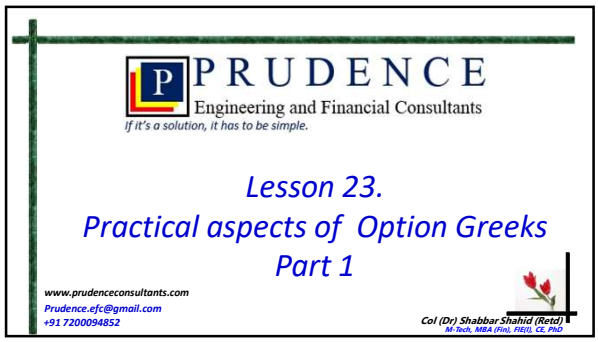


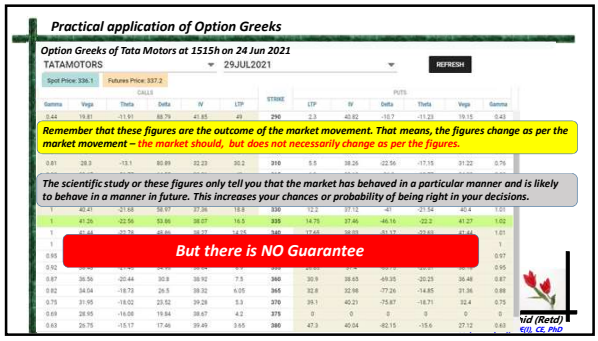

Option Greeks: Tata Motors
Option Greeks of Tata Motors at 1115h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH


Option Greeks: Tata Motors
Option Greeks of Tata Motors at 1515h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH


Option Greeks: Tata Motors
Option Greeks: Tata Motors


Option Greeks: Tata Motors
Option Greeks of Tata Motors at 1515h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH


PRUDENCE
Engineering and Financial Consultants
if it's a solution, it has to be simple.
Lesson 23.
Practical aspects of Option Greeks
Part 1
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)


Practical application of Option Greeks
Option Greeks of Tata Motors at 1515h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH
Remember that these figures are the outcome of the market movement. That means, the figures change as per the market movement – the market should, but does not necessarily change as per the figures.
The scientific study or these figures only tell you that the market has behaved in a particular manner and is likely to behave in a manner in future. This increases your chances or probability of being right in your decisions.
But there is NO Guarantee

Practical application of Option Greeks

Step 1:

Make your view about the market or the price movement...
- ... Based on your study, technical analysis, research and experience
- ... But certainly not on speculation.

Example of your views could be...
- ... The spot price will increase by 50 in next 3 days
- ... The spot price will increase beyond 400 in next 10 days
- ... The spot price will not fall below 300 before expiry
- ... At expiry, the spot price will be above xyz
- ... At expiry, the spot price will be below abc
- ... If the price goes above 375, it will continue to go up to 405
- ... If the price falls below 300, it will continue to fall up to 275
- ... Expiry will happen between 350 and 380
- ..... And so many more possibilities.

Step 2:

Make a strategy of what to buy or sell or a combination of buy and sell, depending upon your view

Step 3:

Check whether the Greeks support your STRATEGY (Not your view)

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 24.
Practical aspects of Option Greeks Part 2

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Practical application of Option Greeks

Step 1:

Make your view about the market or the price movement...
- ... Based on your study, technical analysis, research and experience
- ... But certainly not on speculation.

Example of your views could be...
- ... The spot price will increase by 50 in next 3 days
- ... The spot price will increase beyond 400 in next 10 days
- ... The spot price will not fall below 300 before expiry
- ... At expiry, the spot price will be above xyz
- ... At expiry, the spot price will be below abc
- ... If the price goes above 375, it will continue to go up to 405
- ... If the price falls below 300, it will continue to fall up to 275
- ... Expiry will happen between 350 and 380
- ..... And so many more possibilities.

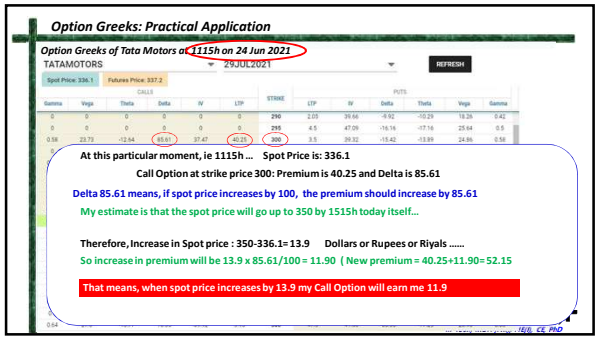
Step 2:

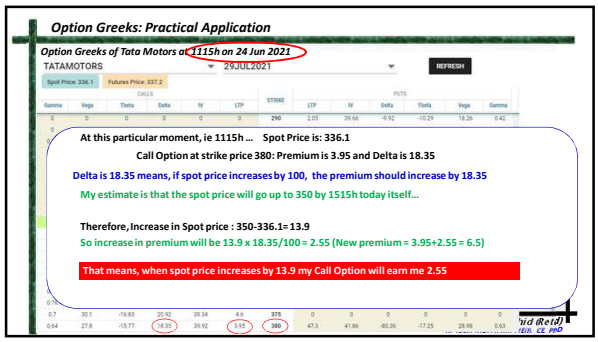
Make a strategy of what to buy or sell or a combination of buy and sell, depending upon your view

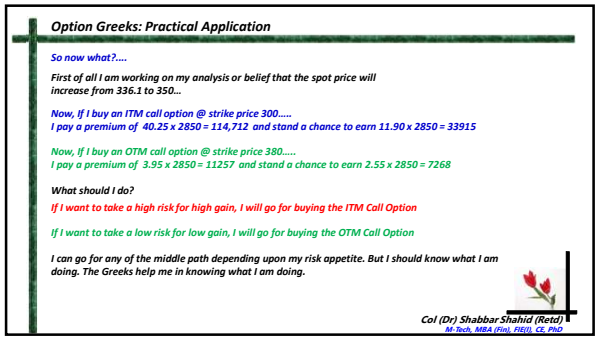
Step 3:

Check whether the Greeks support your STRATEGY (Not your view)

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Option Greeks: Practical Application
Option Greeks of Tata Motors at 1115h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH
At this particular moment, ie 1115h ... Spot Price is: 336.1
Call Option at strike price 300: Premium is 40.25 and Delta is 85.61
Delta 85.61 means, if spot price increases by 100, the premium should increase by 85.61
My estimate is that the spot price will go up to 350 by 1515h today itself...
Therefore, Increase in Spot price : 350-336.1= 13.9 Dollars or Rupees or Riyals .....
So increase in premium will be 13.9 x 85.61/100 = 11.90 (New premium = 40.25+11.90= 52.15
That means, when spot price increases by 13.9 my Call Option will earn me 11.9


Option Greeks: Practical Application
Option Greeks of Tata Motors at 1115h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH
At this particular moment, ie 1115h ... Spot Price is: 336.1
Call Option at strike price 380: Premium is 3.95 and Delta is 18.35
Delta is 18.35 means, if spot price increases by 100, the premium should increase by 18.35
My estimate is that the spot price will go up to 350 by 1515h today itself...
Therefore, Increase in Spot price : 350-336.1= 13.9
So increase in premium will be 13.9 x 18.35/100 = 2.55 (New premium = 3.95+2.55 = 6.5)
That means, when spot price increases by 13.9 my Call Option will earn me 2.55


Option Greeks: Practical Application
So now what?....
First of all I am working on my analysis or belief that the spot price will increase from 336.1 to 350...
Now, If I buy an ITM call option @ strike price 300.....
I pay a premium of 40.25 x 2850 = 114,712 and stand a chance to earn 11.90 x 2850 = 33915
Now, If I buy an OTM call option @ strike price 380.....
I pay a premium of 3.95 x 2850 = 11257 and stand a chance to earn 2.55 x 2850 = 7268
What should I do?
If I want to take a high risk for high gain, I will go for buying the ITM Call Option
If I want to take a low risk for low gain, I will go for buying the OTM Call Option
I can go for any of the middle path depending upon my risk appetite. But I should know what I am doing. The Greeks help me in knowing what I am doing.
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Practical Application

Now let us say, instead of Call option buyer, I am the Call Option seller.

So I am working on my analysis or belief that the spot price will go down but will certainly NOT increase above 300...

Now, If I sell an ITM call option @ strike price 300.....
I pocket a premium of 40.25 x 2850 = 114,712

But, If I sell an OTM call option @ strike price 380.....
I get a premium of ONLY 3.95 x 2850 = 11257

What should I do?

If I want to take a high risk for high gain, I will go for selling the ITM Call Option

If I want to take a low risk for low gain, I will go for selling the OTM Call Option

I can go for any of the middle path depending upon my risk appetite. But I should know what I am doing. The Greeks help me in knowing what I am doing.

If you have understood the concept,
then in a similar manner you can work out many - many strategies.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 25.
Key takeaways from Delta

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

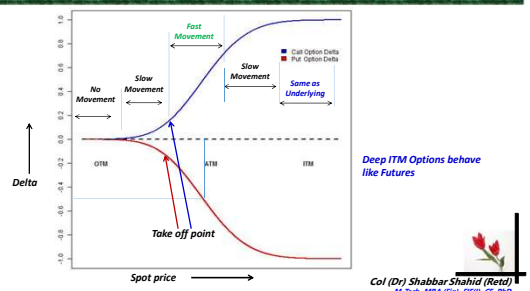
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Key takeaways from Delta

- Delta is a figure varying from 0 to 1 on an absolute scale or 0 to 100 on a percentage scale
- Call options have a +ve delta. A Call option with a delta of 0.5 indicates that for every 1 point gain/loss in the underlying the call option premium gains/losses 0.5 points (for every 100 points it is 50 points)
- Put options have a -ve delta. A Put option with a delta of 0.5 indicates that for every 1 point gain/loss in the underlying the call option premium gains/losses 0.5 points (for every 100 points it is 50 points)
- OTM Options have a Delta value between 0 and 0.5 (or 0 and 50)
- ATM Options have a Delta value close to 0.5 (or 50)
- ITM Options have a Delta value between 0.5 and 1 (or 50 and 100)

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Key takeaways from Delta



Deep ITM Options behave like Futures

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Key takeaways from Delta

Generalized thinking of a novice	Strategized thinking of a professional
My view is bullish, so I will buy a Call Option	My view is that the underlying will move up by 60 points so I must buy a Call Option with a Delta of 0.5 or above so that with a 60 points rise in underlying asset, I earn at least 30 points on my option
This person buys deep OTM call	This person buys ATM or slightly OTM/ITM call
If I win, it is like winning a lottery. But chances of loosing are more	Chances of gaining are more. But if the direction goes wrong, loss of premium is more.

Why do I do, what I do?

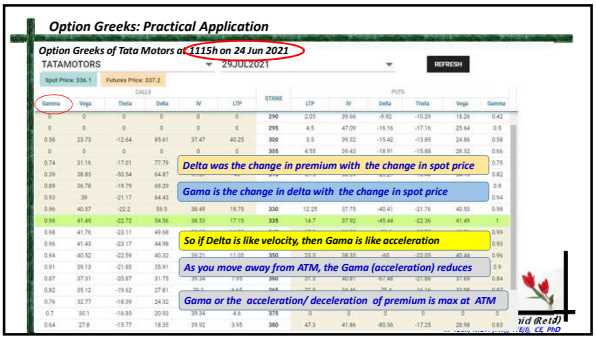
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

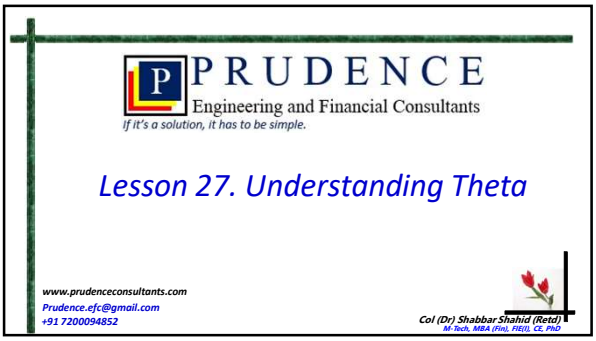
PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

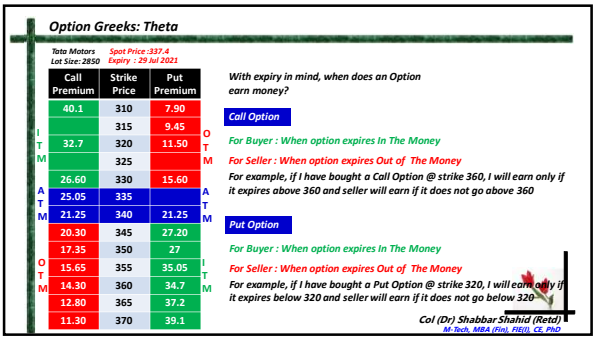
Lesson 26. Understanding Gama

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Option Greeks: Practical Application
Option Greeks of Tata Motors at 1115h on 24 Jun 2021
TATAMOTORS
29JUL2021
REFRESH
Delta was the change in premium with the change in spot price
Gama is the change in delta with the change in spot price
So if Delta is like velocity, then Gama is like acceleration
As you move away from ATM, the Gama (acceleration) reduces
Gama or the acceleration/ deceleration of premium is max at ATM


PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.
Lesson 27. Understanding Theta
www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD


Option Greeks: Theta
Tata Motors
Lot Size: 2850
Spot Price :337.4
Expiry : 29 Jul 2021
Call Premium
Strike Price
Put Premium
40.1 310 7.90
315 9.45
32.7 320 11.50
325
26.60 330 15.60
25.05 335
21.25 340 21.25
20.30 345 27.20
17.35 350 27
15.65 355 35.05
14.30 360 34.7
12.80 365 37.2
11.30 370 39.1
ITM
ATM
OTM
With expiry in mind, when does an Option earn money?
Call Option
For Buyer : When option expires In The Money
For Seller : When option expires Out of The Money
For example, if I have bought a Call Option @ strike 360, I will earn only if it expires above 360 and seller will earn if it does not go above 360
Put Option
For Buyer : When option expires In The Money
For Seller : When option expires Out of The Money
For example, if I have bought a Put Option @ strike 320, I will earn only if it expires below 320 and seller will earn if it does not go below 320
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Theta

Tata Motors Spot Price :337.4
Lot Size: 2850 Expiry : 29 Jul 2021

	Call Premium	Strike Price	Put Premium	
ITM	40.1	310	7.90	OTM
		315	9.45	
	32.7	320	11.50	
		325		
	26.60	330	15.60	
ATM	25.05	335		ATM
	21.25	340	21.25	
	20.30	345	27.20	
	17.35	350	27	
OTM	15.65	355	35.05	ITM
	14.30	360	34.7	
	12.80	365	37.2	
	11.30	370	39.1	

No of Days for Expiry	Chances of Option getting ITM	Therefore, risk taker (Option Writer) gets...
30	Very high	Very high premium
25	High	High premium
20	Moderate	Moderate premium
15	Low	Less premium
10	Very low	Very less premium
5	Ultra less	Ultra less premium
1	Negligible	Negligible premium

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Theta

So , as the number of days to expiry reduce, the premium on Options reduce...

This is called Time Decay of Options

But how much does it reduce every day?

That is measured by Theta and it is different for different underlying asset

Point to note: While all other circumstances are two directional, Time decay is only in one direction

If all other things remain neutral or unchanged, Options would be a depreciating asset

Theta is expressed in "Points lost per day" assuming all other things remain constant

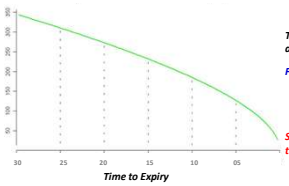
For example: If an option is trading today at a premium of 15.1and say Theta is -0.2
So tomorrow the premium will be 15.1 – 0.2= 14.9
But just because the theta is -0.2 today, that doesn't mean it will be the same through out the month

Time decay is the Biggest Disadvantage for Option Buyer and the Biggest Advantage for Option writer

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Theta

Time Decay Graph



The rate of Time Decay increases as you approach expiry

For example:
at 30 days Theta may be say, -0.2
at 20 days it may become - 0.25
at 10 days it may be -0.35

So, closer you get to expiry, faster is the time decay

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 28. Understanding Vega

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852
Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Vega

- *Delta*
- *Gama*
- *Theta*
- *Vega*

Vega of an Option measures the rate of change of Option's premium for a percentage change in Implied volatility

That means, if the implied volatility changes by 1 % , the how much would the premium for that Option change

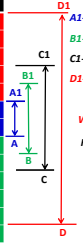
So first we need to know...
- *...What is Volatility*
- *... What is implied volatility*
- *... and what is the implication of volatility*

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Theta

Tata Motors *Spot Price :337.4*
Lot Size: 2850 *Expiry : 29 Jul 2021*

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1



For a given period of time, consider...
Price moves between...

- *A1-A ie. 335 and 340* — *Almost static*
- *B1-B ie. 330 and 345* — *Little volatile*
- *C1-C ie. 325 and 350* — *More volatile*
- *D1-D ie. 310 and 365* — *Highly volatile*

What are the implications of volatility?

Higher the volatility, higher the chances of Option expiring ITM
Therefore, Option buyer has more chances of winning
Therefore, Option writer deserves more premium

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Vega

Having understood volatility, what is Implied Volatility?

Historical Volatility : This is the volatility calculated from the past data.

Forecast Volatility : This is the likely volatility which may occur in future based on statistical calculations

Implied Volatility : This is the likely volatility based on market perceptions...

Market respects the historical data. It also respects statistics and mathematics
But does not depend solely on them...

Market takes into account the perceptions and sentiments of its players,
the news flows,
the events,
the psychology,
the greed,
the fear and many more things into account.

Calculated by the team and computers dedicated to the market

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Vega

Vega

Vega of an Option measures the rate of change of Option's premium
for a percentage change in Implied volatility

Let us say, today for a Call option at strike price X...

Option premium is 10.5 | Implied volatility is 20% | Option Vega is 0.2

The implied volatility changes to 21.5%. What will be the new premium?

Change in implied volatility (IV) = 21.5- 20= 1.5 %

Vega is 0.2 That means, for 1% change in IV, the premium changes by 0.2
So for 1.5% change in IV, the premium changes by ? 1.5 x 0.2= 0.3

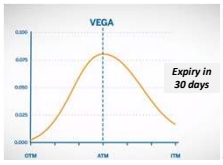
So new premium is 10.5 + 0.3= 10.8

If the volatility had dropped from 20% to 18.5%,
then the premium change would have been (-) 0.3 and ...
...the new premium would have been 10.5- 0.3=10.2

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Vega

Vega is highest when Option is ATM



Vega declines as option nears expiry date.
More the time remaining for expiry,
more will be the Vega in the option

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 29. Recapitulating the significance of Greeks

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Let us recapitulate

Delta

If the Spot price changes by 1 unit, how much will the premium change ?
For Call Options delta is 0 to 1 (0 to 100). For Put Options -1 to 0 (-100 to 0)
Delta for Deep OTM options is very low.
Avoid buying deep OTM options unless you are expecting a sharp move in price

Gama

Gamma captures the rate of change of delta.
If the underlying changes by X, how much will be the new value of delta?
Gama is max at ATM.
Large Gama means large directional risk. Avoid shorting options which have large gama, unless you are hedged.

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: Let us recapitulate

Theta

It talks about Time Decay. How much the premium reduces per day, all other things remaining constant. Time moves in one direction
Theta is the biggest enemy of Option buyer and the best friend of Option seller
At the beginning of the series, theta is low but towards the end the time decay is rapid
When you short options close to expiry the premium is low (since time value is low) but the fall in premium is rapid

Vega

Measures rate of change of premium with respect to change in Volatility
Premium increases with the increase in volatility
Vega, that is the effect of volatility is highest when days to expiry are maximum

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 31.
Buying and Selling decisions

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Buying and Selling Options

The simplest thing is...
... How to Buy and Sell?

More difficult thing to decide is...
... What to Buy and Sell.... Call or Put
... Whether an Index or an underling stock?
... Whether ATM, OTM or ITM ?
... How much OTM or how much ITM?

This would depend on your strategy and your understanding of the Greeks

The most difficult thing to decide is...
... Whether to Buy or Sell?

Buying an Option
Pay a Premium
Scope of unlimited Profit
Buyer is a Free Bird. No responsibility

Seller of an Option
Receive a Premium
Possibility of unlimited Loss
Block a Margin amount and remain responsible to honor the Option

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Lesson 32.
A word of advise for beginners

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

A word of advise

Be proud of being a Beginner.... Take your time to become a professional

To begin with, avoid buying Options which are deep out of the money

BUT THAT DOES NOT MEAN THAT YOU SELL NAKED OPTIONS

As beginners, you may learn the art and science of trading by selling covered or hedged options.
For example:

1. *Say if you are physically holding one lot of underlying asset, then sell a deep OTM Call option. If your move is successful, you can pocket the small premium and if the move goes wrong, you can recover the losses by selling the physical share holding.*
2. *Sell a OTM call or put option and simultaneously buy the same a little more OTM.*

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

Option Greeks: A word of advise

Spot Price :337.4 *Days to Expiry 43*
Today: 16 Jun 2021 *Expiry : 29 Jul 2021* *Tata Motors Options*

Call Premium	Strike Price	Put Premium
40.1	310	7.90
	315	9.45
32.7	320	11.50
	325	
26.60	330	15.60
25.05	335	
21.25	340	21.25
20.30	345	27.20
17.35	350	27
15.65	355	35.05
14.30	360	34.7
12.80	365	37.2
11.30	370	39.1

Let us say,
You sell an OTM call option at strike 360
Premium received= 2850 x 14.30= 40755

Simultaneously, you buy an OTM call option at strike 370
Premium paid= 2850 x 11.3= 32205

So net premium received = 40755-32205= 8550

Now if your assessment is right, ie. Price does not go above 360, then you pocket the 8550 premium received

But if your assessment goes wrong and price shoots up to say 400.
Then,
On short call you loose : 2850 x (400-374.3) = 73245
And on Long call you gain: 2850 x (400-381.3) = 53295
So your net loss is limited to ; 73245-53295= 19950

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD

PRUDENCE
Engineering and Financial Consultants
If it's a solution, it has to be simple.

Thank you

www.prudenceconsultants.com
Prudence.efc@gmail.com
+91 7200094852

Col (Dr) Shabbar Shahid (Retd)
M-Tech, MBA (Fin), FIE(I), CE, PhD