

OPTION IN THE REAL MARKET



vEcoSys

**Understanding how a typical  
Option Deal is done in the market**  
– By Prof. *Simply Simple*™



## OPTION IN THE REAL MARKET

In the stock market there are several participants who are both buyers and sellers...



## OPTION IN THE REAL MARKET

A **stock market** is a platform  
where this is free flow of information...



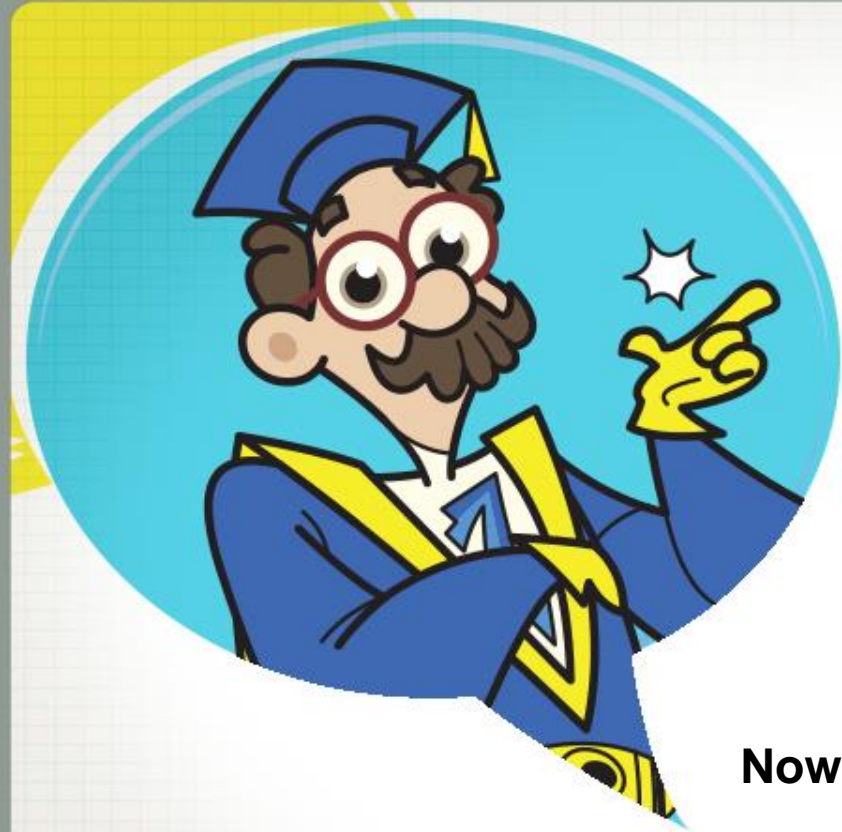
## OPTION IN THE REAL MARKET

**This is so that the current stock price is known to every participant (buyers and sellers) Any participant trying to extract a higher price will not be able to do so because of the free flow of information which prevents any sort of price arbitrage.**

**This is what we call 'Price Discovery'.**



## OPTION IN THE REAL MARKET



Now lets say there is a stock option on stock A, which is currently quoting at Rs.100. And let's say the option expires after 5 days...



## OPTION IN THE REAL MARKET

Now let's say there are two participants "Ram" & "Sam" in this market.

Ram is of the view that the stock prices would go up in near future and he could make profit by buying stock 'A' at Rs. 120 today. But Ram does not want to take downside risk to an unmeasured extent (i.e. in case the price falls below Rs 120).



## OPTION IN THE REAL MARKET

Hence he chooses to buy a call option which protects him against any downside risk. For getting this service he would have to pay a premium to the seller of the option. The seller of the option, Sam, on the other hand has a view that the price of the stock will fall, in which case, he knows that the buyer will NOT exercise his option so that he can earn the premium of let's say Rs 2.





## OPTION IN THE REAL MARKET

To understand this better let's assume that Ram has bought a call option at the strike price of Rs. 120 (i.e. the price at which he gets a right to buy the stock "A" in future from the seller of the call option).

Now, look at how the prices move in these 5 days and what implications it has for Ram & Sam...



## OPTION IN THE REAL MARKET

It is important to understand that this trade starts with a debit balance of Rs 2 ( the premium) in the buyer's (Ram) account while the seller's account would show a credit balance of the same amount (Rs 2 – Premium amount). Further, it is imperative to know that Rs. 2 is the maximum debit and credit which can occur in Ram's and Sam's account respectively.

Ram Seller	Debit Premium Rs 2	Credit

Sam Seller	Debit	Credit Premium Rs. 2



Day 1

## OPTION IN THE REAL MARKET

Ram's buying price of the Options on day "One" – 120

Closing Price on day "One" – 122

His notional profit at the end of day "One" – Rs. 2

But, unlike futures, Ram's account will not be credited by this profit till he settles or squares off his contract. However, Sam's account would be debited by Rs 2 since he is obliged to honor the contract.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1 (notional profit Rs. 2)	NIL	NIL

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	



## Day 2

# OPTION IN THE REAL MARKET

Closing Price on day “two” – 125

Ram’s gross notional profit now is Rs. 5 and Sam’s loss compared to the previous closing price is Rs. 3. So, in the end, Sam’s account gets debited by Rs 3 as shown in the tables below.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2 (notional profit Rs. 5)	NIL	NIL

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	



Ram can cash out his notional profit today by assigning his call option to Sam. Sam cannot exit the contract; however; he can pass on his probable future obligation to some other participants by honoring the losses till date.

## Day 3

# OPTION IN THE REAL MARKET

Closing Price on day “Three” – 124

Ram’s notional profit comes down to Rs. 4 and Sam’s account would get credited by Rs 1.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3 (notional profit Rs. 4)	NIL	NIL

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1



Ram can cash out his notional profit today by assigning his call option to Sam. Sam cannot exit the contract; however, he can pass on his probable future obligation to some other participants by honoring the losses till date.

Day 4

## OPTION IN THE REAL MARKET

Closing Price on day “Four” – 123

Ram’s notional profit will come down to Rs. 3 and Sam’s account would get credited by Rs 1.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3	NIL	NIL
Day 4 (notional profit Rs. 3)	NIL	NIL

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1
Day 4		Rs 1



Ram can cash out his notional profit today by assigning his call option to Sam. Sam cannot exit the contract; however; he can pass on his probable future obligation to some other participants by honoring the losses till date.

## Day 5 – Settlement Date

### OPTION IN THE REAL MARKET

Closing Price on day “Five” – 127

Ram’s notional profit would increase to Rs.7. So at the end of day 5 (settlement day), Ram’s account with his broker would get credited by Rs 7 while Sam’s account would get debited by Rs. 4.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3	NIL	NIL
Day 4	NIL	NIL
Day 5		RS 7

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1
Day 4		Rs 1
Day 5	Rs 4	



## Day 5 – Settlement Date

### OPTION IN THE REAL MARKET

Closing Price on day “Five” – 127

Ram’s notional profit would increase to Rs.7. So at the end of day 5 (settlement day), Ram’s account with his broker would get credited by Rs 7 while Sam’s account would get debited by Rs. 4.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3	NIL	NIL
Day 4	NIL	NIL
Day 5		RS 7
Total	RS 2	RS 7
Net gain	RS 5	

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1
Day 4		Rs 1
Day 5	Rs 4	
Total	Rs 9	RS 4
Net Loss	Rs 5	



## Day 5 – Settlement Date

### OPTION IN THE REAL MARKET

In this case, the Call Option buyer has a net gain of Rs 5 while the Call Option seller has a net loss of Rs 5

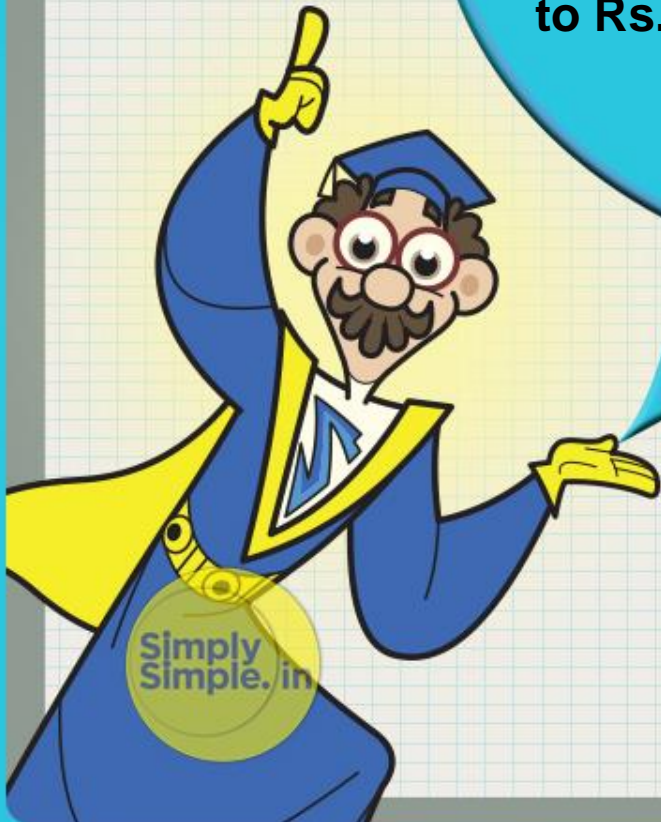
Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3	NIL	NIL
Day 4	NIL	NIL
Day 5		RS 7
Total	RS 2	RS 7
Net gain	RS 5	

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1
Day 4		Rs 1
Day 5	Rs 4	
Total	Rs 9	RS 4
Net Loss	Rs 5	



## OPTION IN THE REAL MARKET

But what would have happened if on the last day instead of the price rising by Rs 4, it had fallen by Rs 7 to Rs. 116?



## OPTION IN THE REAL MARKET

As seen in the table if the prices had fallen on the 5<sup>th</sup> day, the “Call Option” buyer’s account ( Ram’s Account) would not be debited by any amount.

But his notional profits will wipe out and he will not lose any thing beyond Rs. 2 paid towards buying the call option. In the case of Sam, apart from initial premium, his account will be credited to the maximum extent of his previous net debits. So, if price of the stock comes down to Rs. 116, seller’s account (Sam’s account) would get credited to the maximum of Rs. 3.

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3	NIL	NIL
Day 4	NIL	NIL
Day 5	NIL	NIL

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1
Day 4		Rs 1
Day 5		Rs 3

## OPTION IN THE REAL MARKET

The final reconciliation in this case would be somewhat like this...

Ram Buyer	Debit Premium Rs 2	Credit
Day 1	NIL	NIL
Day 2	NIL	NIL
Day 3	NIL	NIL
Day 4	NIL	NIL
Day 5	NIL	NIL
Total	RS 2	RS 0
Net Loss	RS 2	

Sam Seller	Debit	Credit Premium Rs. 2
Day 1	Rs 2	
Day 2	Rs 3	
Day 3		Rs 1
Day 4		Rs 1
Day 5		Rs 3
Total	Rs 5	RS 7
Net Gain	Rs 2	



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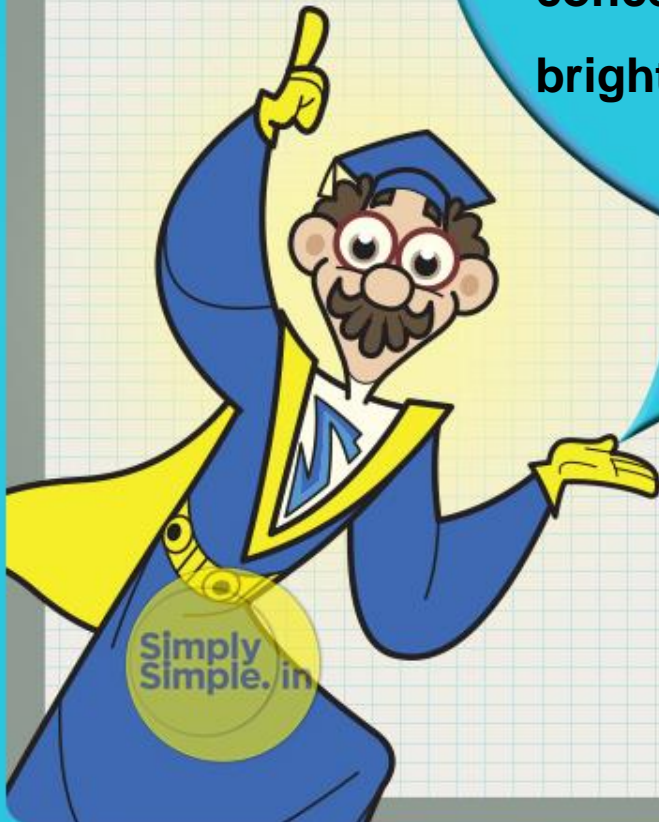


Thus, we see that Ram has unlimited “upside” gain but limited “downside” liability while Sam on the other hand has unlimited “downside” liability but a limited “upside” gain to the tune of the premium amount only.

Thus the ‘Call Option” buyer has limited risk while the “Call Option” seller takes a much larger risk!

## OPTION IN THE REAL MARKET

**Phew! That was quite a tough one.  
I hope you have got some  
understanding of this esoteric  
concept which dodges the  
brightest brains many a times.**



## OPTION IN THE REAL MARKET

**Please do let me know if I have managed to clear this concept for you. Your feedback is very important to me as it helps me plan my future lessons.**



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