

CREATING A SYSTEM

This is how a hypothesis is generated from a creative process, back-tested and then experimented in live-markets. A hypothesis that passes all these levels becomes a self-sustaining strategy which is then added to the trading system. This is how the entire evolution of strategy and systems happen. Creating functional and efficient trading strategies and system requires a lot of time and effort on the part of the trader. For a beginner, this will take 60-70% of their time and also will take many months before they have a trading system in place. Also, constant changes and updates are made to the system. Once this has been created, the next step is to execute the system. Execution mainly is a psychological skill. It is about our ability to trust the system that we have created and keep emotions in check.

We have created multiple working strategies and we know that individual profit-making or loss-making trades mean nothing. Hence, we will now create a system out of these strategies and work on three more aspects –

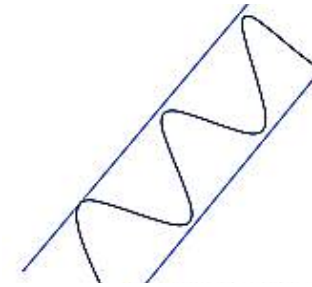
Once we have taken care of the aspects mentioned and have multiple strategies, we will have a robust system that will help us become a proficient trader. Let us understand each of these above-mentioned aspects in greater detail.



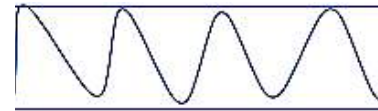
DIFFERENT KINDS OF MARKET

We see that a market can exhibit different phases – up-trending, down-trending and sideways. These also have complicated names i.e. accumulation phase, consolidation phase and distribution phase. But, we will stick to the simpler names. In practice, we will see that different strategies work in different kinds of market. For instance, those that work in up trending market might not work in a sideways market. Those that work in a down-trending market might not work in up-trending markets.

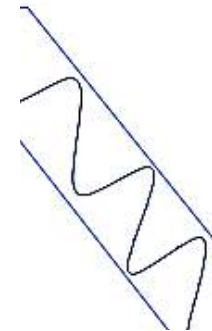
So, to create a system we have to use strategies and determine which strategies will be used in what kinds of markets. Also, it is not required for us to trade in all kinds of markets. We could create a system where we only trade in up trending market and be inactive rest of the time. It could also say that strategy A will be used in up trending, strategy B in sideways and strategy C and D is downtrending. This way, we will define the behaviour of our trading in different kinds of market.



**UPTRENDING
MARKET**



**SIDEWAY
MARKET**



**DOWNTRENDING
MARKET**

ASSETS WE WILL USE TO TRADE

The next important decision to make while creating a trading system is to determine the assets that we will be trading in. We will determine the universe or subset of assets that we will be trading in and next, the security type we will use to trade – Options, Futures or Cash market.



DETERMINING THE TRADING UNIVERSE

First and foremost, we will determine the trading universe that we will be actively trading in. This means our decision will involve – whether we will trade in large caps, mid caps or small caps. We can also only trade in indices, commodities, and currencies. Then there are advanced derivative instruments to trade in spreads and interest rates. We will avoid these for now. These involve large amounts, high risk and expertise. One can learn these if they become expert in all that we have discussed so far.

Once we have finalized the space that we want to trade in, we can further narrow it down to the industries that we would prefer to trade-in. Some traders go as far as determining the exact stock names that they will trade-in. They might have a list of 15-20 stocks they will trade. They have a clear understanding of the movement of these stocks and are familiar with their patterns as they have been observing these for quite some time now.

We can also narrow down to select commodities or currencies that we would like to trade-in. We do this because not all strategies work in all kinds of assets. If we keep the trading universe too broad, we will not be able to track and understand the price movement of each asset. We will also get a lot of noise and false moves and as a result, we will have lots of trades and many of them will be unsuccessful. If we keep the universe too narrow, we will not be in a position to trade as we will not get enough signals. So, we have to maintain a balance between quality and quantity by selecting an adequate trading universe.

TYPE OF SECURITY TO BE USED

Once we have determined the asset universe that we will trade-in, the next step would be to determine the kind of security that we will use to enter trades. The math and risk-reward for each of these security types are different. Let us understand these in greater detail and which ones will we use.



1

CASH TRADING

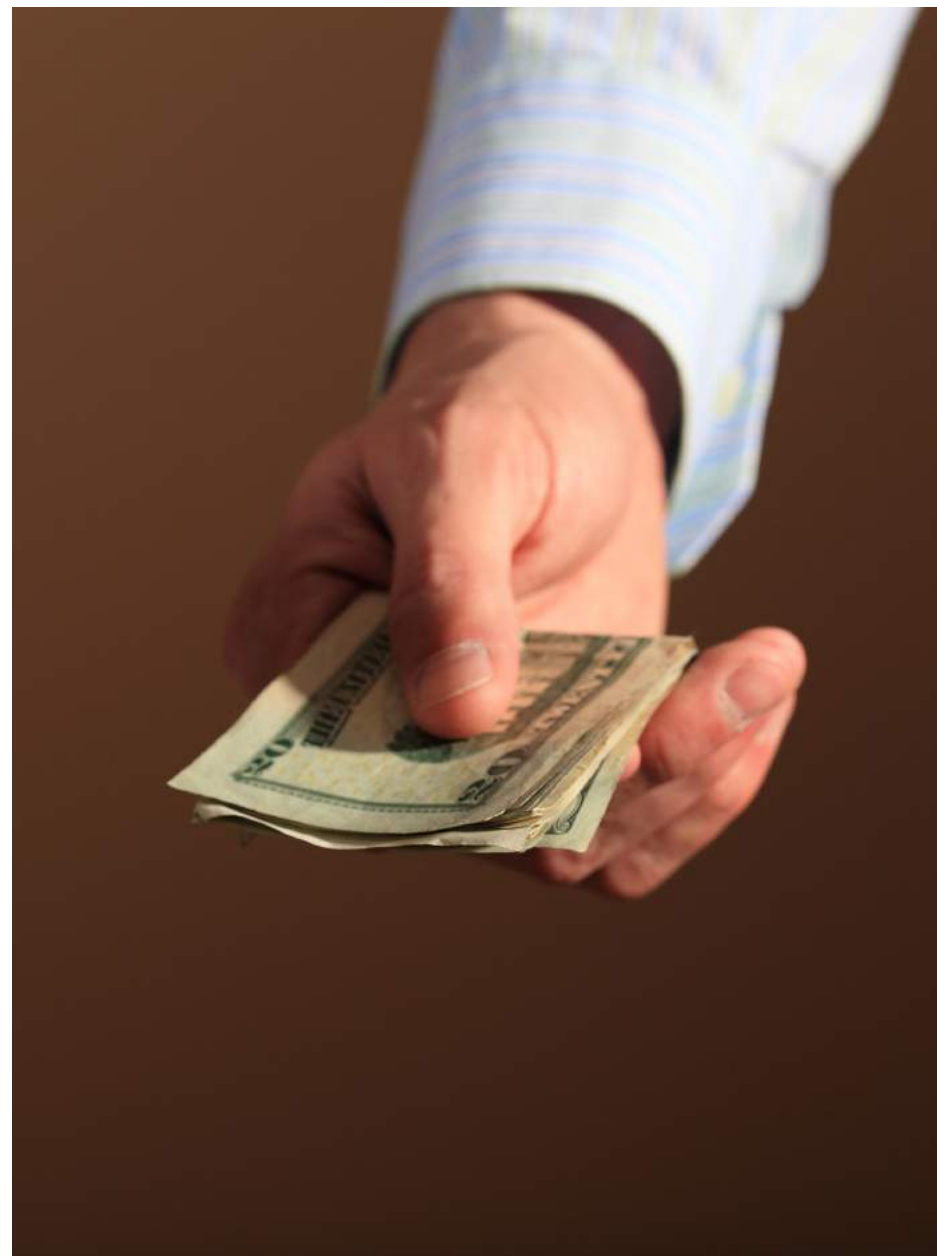
Cash trading means buying the asset by paying the full price with cash for the asset. This means if we buy 100 shares of Rs. 200 each, we will pay Rs. 20,000 in cash right away and the stock will be delivered to us. This is called cash trading as we are buying and selling the actual asset using cash and we are not using any leverage in the trade. In cash trade, we cannot lose more than what we have invested as we cannot lose more than what the asset is worth. The price of the asset will at-max go down to zero and will never go down to a negative number. So, cash trades do not magnify our risk-return. The profit or loss in percentage terms is equal to the percentage change in the asset price. We can only go long on the assets in India i.e. benefit from the price increase. Cash trading is normal buying and holding of the asset and benefit from the price change.

2

FUTURES TRADING

Futures trading is a quasi-cash trade. In the futures market, we do not have to pay the full amount of the asset. We only pay a margin i.e. safety money as a deposit to be used whenever there is a loss. So, if we buy 100 shares of Rs. 200 each and the margin to be paid is 15%, so instead of paying the entire Rs. 20,000 we will only deposit Rs. 3000. This is deposited with the broker and daily losses and profits are added or deducted to this. Let us say, the price of the asset increases from Rs. 200 to Rs. 220, we earn a profit of Rs. 2000. As a result, we will see that Rs. 3000 deposit increases to Rs. 5000. If the price had gone down from Rs. 200 to Rs. 180, we would have had a loss of Rs. 2000 and the deposit would have decreased to Rs. 1000.

We see with futures that the loss or profit we make in percentage terms is much higher than the actual percentage change in the asset market price. This is because, in the futures market, we are using leverage. We are not paying the full price for the asset. Instead, we are only paying a part of the same i.e. 15% in this case.



In the futures market, we can go both long and short on the asset. Futures market price of the asset moves in line with the cash market asset price. The price changes in both are similar. The difference in results is because we are using leverage and not paying full price for the same. We will have to use futures when we are shorting an asset.

We see that the benefit with futures is that it uses leverage and as a result, the price increase is much faster than the changes in the decrease in prices. However, the downside is that the losses are also incurred at a greater velocity. Also, with futures, we can use more than what we own. As a result, we will have to deploy risk management strategies very carefully, particularly when dealing with futures. We will learn about various forms and types of risk management shortly going ahead.



3

OPTIONS TRADING

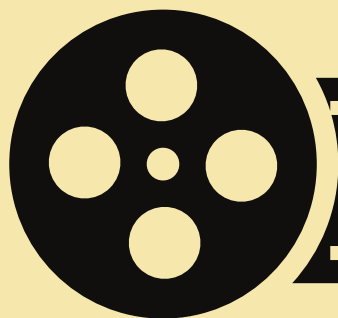
Options the riskiest method of trading where capital is created and lost in a very short span of time. Options trading is a very complicated school in itself which is beyond the scope of this course. As beginners, we will stay away from trading purely in options as multiple factors are at play and these require financial sophistication and technical expertise. For those who understand it well, can go ahead with option trading strategies as well. Options are mainly used for risk management and we will also limit the use of options to risk management.



CALL OPTION

Call options are a contract where the buyer and seller fixate on a strike price and a fixed date. If on that fixed date, the price of that asset is higher than the strike price, the seller of the call option will pay the difference between the closing price and strike price to the buyer as profit. This is a risk that the seller is taking. In exchange for that risk, the buyer pays the seller a premium. If the closing price is below the strike price, the premium is the profit for the seller.

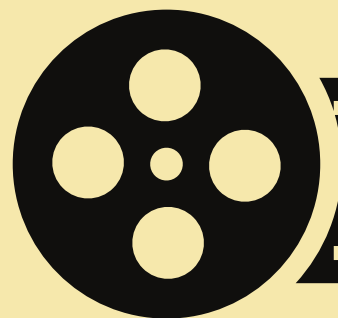
Let us understand this with an example and multiple scenarios with closing price. Let us say, today is the 1st of April 2020 and a share for Reliance Industries Ltd. is worth Rs. 2000.. A buyer and seller enter into a call option trade where the strike price is Rs. 2100 and the cut-off date is 28th April 2020. In exchange for this, the buyer pays a premium of Rs. 50 to the seller right away. The buyer can not incur any more losses beyond this i.e. Rs. 50. Let us see what would the result in different scenarios –



SENERIO 1

CLOSING PRICE IS RS.2000

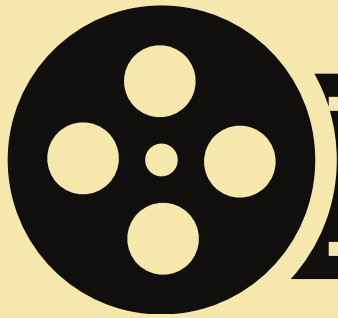
We see that the closing price on 28th April is less than the strike price. This means that the seller will not have to pay any amount to the buyer and the seller makes a profit of Rs. 50 which is the loss for the buyer.



SENERIO 2

CLOSING PRICE IS RS.1800

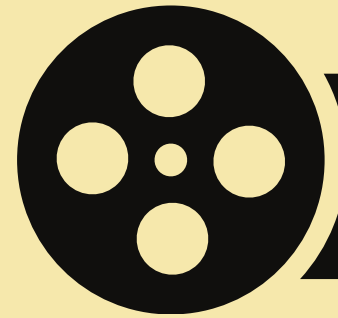
We see that the price has gone down. The seller therefore has no liability and will take the premium of Rs. 50 as profit. We see with Call option that even after price decline, the buyer will not have to pay any additional amount. The loss is capped at Rs. 50 for the buyer.



SENERIO 3

CLOSING PRICE IS RS.2100

We see that the price is equal to the closing price. In this case too, the seller will not pay the buyer any amount and ends up with a profit of Rs 50 which was the premium received.



SENERIO 4

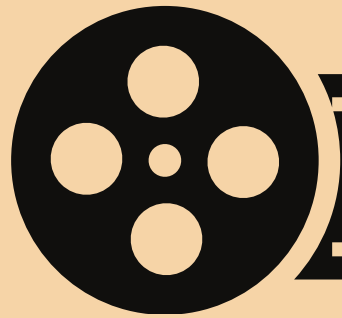
CLOSING PRICE IS RS.2300

We see that the closing price is higher than the strike price. This means the seller will pay Rs. 200 per share to the buyer as the price increased beyond the strike price. However, Rs. 50 of this was paid to the seller as premium. As a result, the buyer ends up with a profit of Rs. 150 per share. We see how with the use of options, a 15% increase in price led to a profit of 300% for buyer and loss for the seller. These are extremely leveraged and as a result, unless extremely well trained, we are better off away from them. We will only use these for risk management.

PUT OPTION

Put options are a contract where the buyer and seller fixate on a strike price and a fixed date. If on that fixed date, the price of that asset is lower than the strike price, the seller of the call option will pay the difference between the closing price and strike price to the buyer as profit. This is a risk that the seller is taking. In exchange for that risk, the buyer pays the seller a premium. If the closing price is above the strike price, the premium is the profit for the seller.

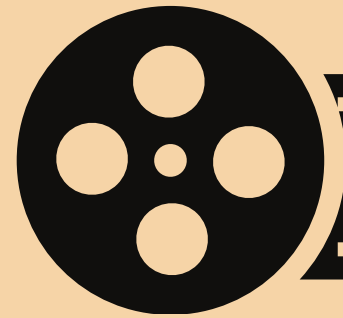
Let us understand this with an example and multiple scenarios with closing price. Let us say, today is 1st of April 2020 and a share is worth Rs. 2000 for Reliance Industries Ltd. A buyer and seller enter into a call option trade where the strike price is Rs. 1900 and the cut-off date is 28th April 2020. In exchange for this, the buyer pays a premium of Rs. 50 to the seller right away. The buyer can not incur any more losses beyond this. Let us see what would the result in different scenarios.



SENERIO 1

CLOSING PRICE IS RS.2000

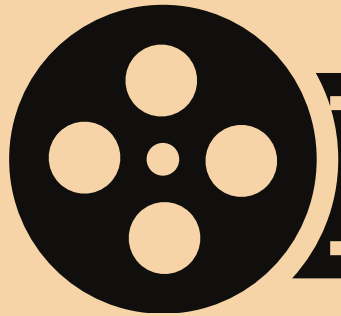
We see that the closing price on 28th April is more than the strike price. This means that the seller will not have to pay any amount to the buyer and the seller makes a profit of Rs. 50 which is the loss for the buyer.



SENERIO 2

CLOSING PRICE IS RS.2200

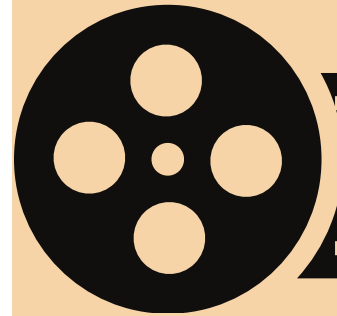
We see that the price has gone up. The seller therefore has no liability and will take the premium of Rs. 50 as profit. We see with Put option that even after price increase, the buyer will not have to pay any additional amount. The loss is capped at Rs. 50 for the buyer.



SENERIO 3

CLOSING PRICE IS RS.1900

We see that the price is equal to the closing price. In this case too, the seller will not pay the buyer any amount and ends up with a profit of Rs 50 which was the premium received.



SENERIO 4

CLOSING PRICE IS RS.1700

We see that the closing price is lower than the strike price. This means the seller will pay Rs. 200 per share to the buyer as the price fell below the strike price. However, Rs. 50 of this was paid to the seller as premium. As a result, the buyer ends up with a profit of Rs. 150 per share. We see how with the use of options, a 15% decrease in price led to a profit of 300% for buyer and loss for the seller. These are extremely leveraged and as a result, unless extremely well trained, we are better off away from them. We will only use these for risk management.



We understood how futures, cash market and options work. We will stick to futures and cash market as beginners. We can explore the options market going ahead as we become more articulate with technical analysis. For now, our focus should be on creating a system that works. However, we will use options for risk management.