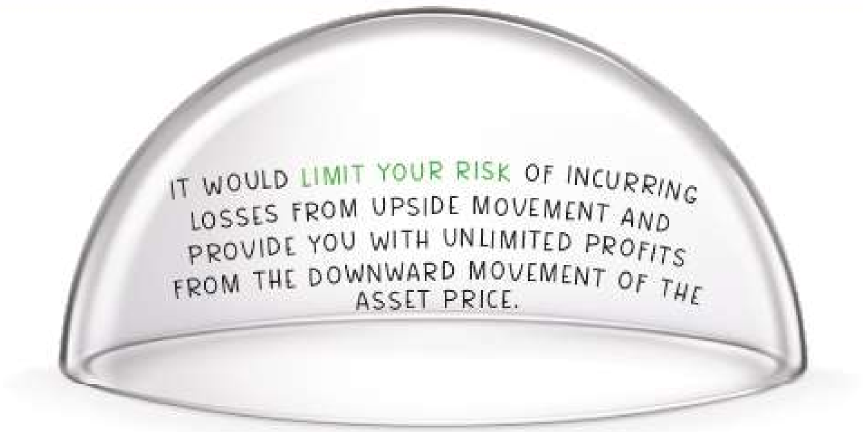
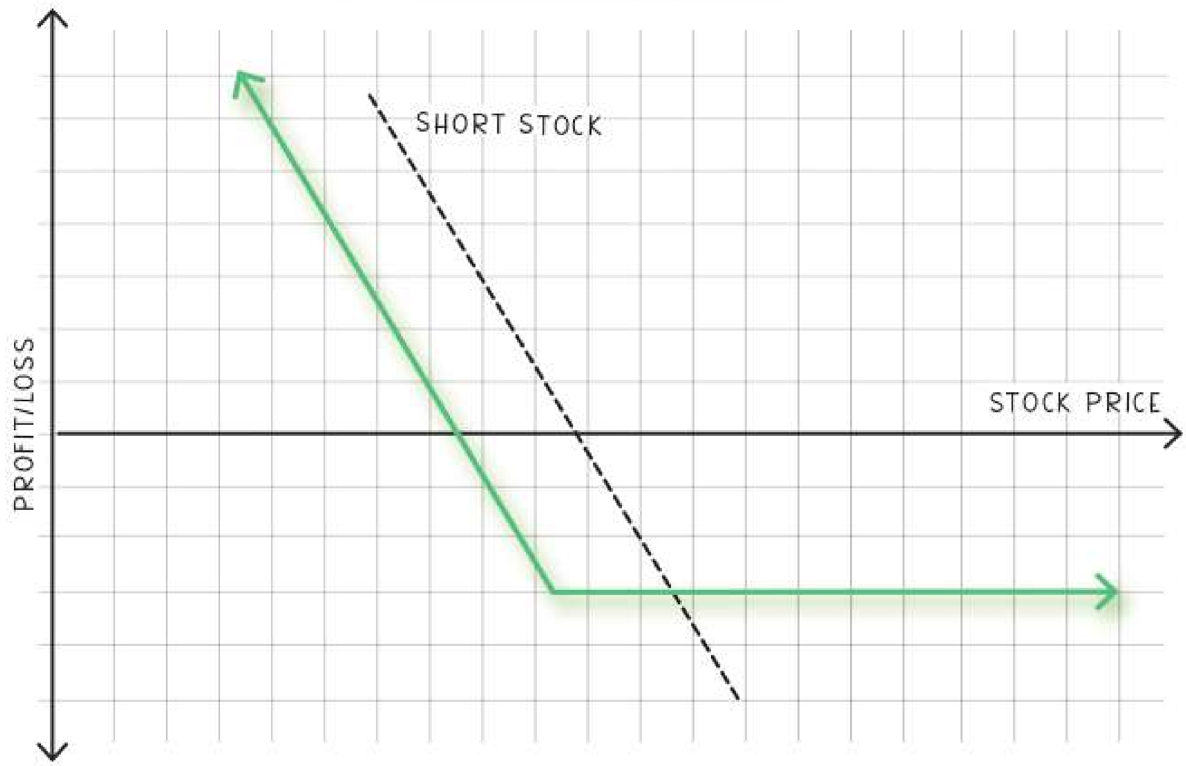
10.3 SYNTHETIC PUT STRATEGY

Explainer Video

> "SYNTHETIC PUT STRATEGY IS A RISK MANAGEMENT STRATEGY THAT USES CALL OPTION TO INSURE SHORT POSITION IN ANY STOCK OR INDEX."





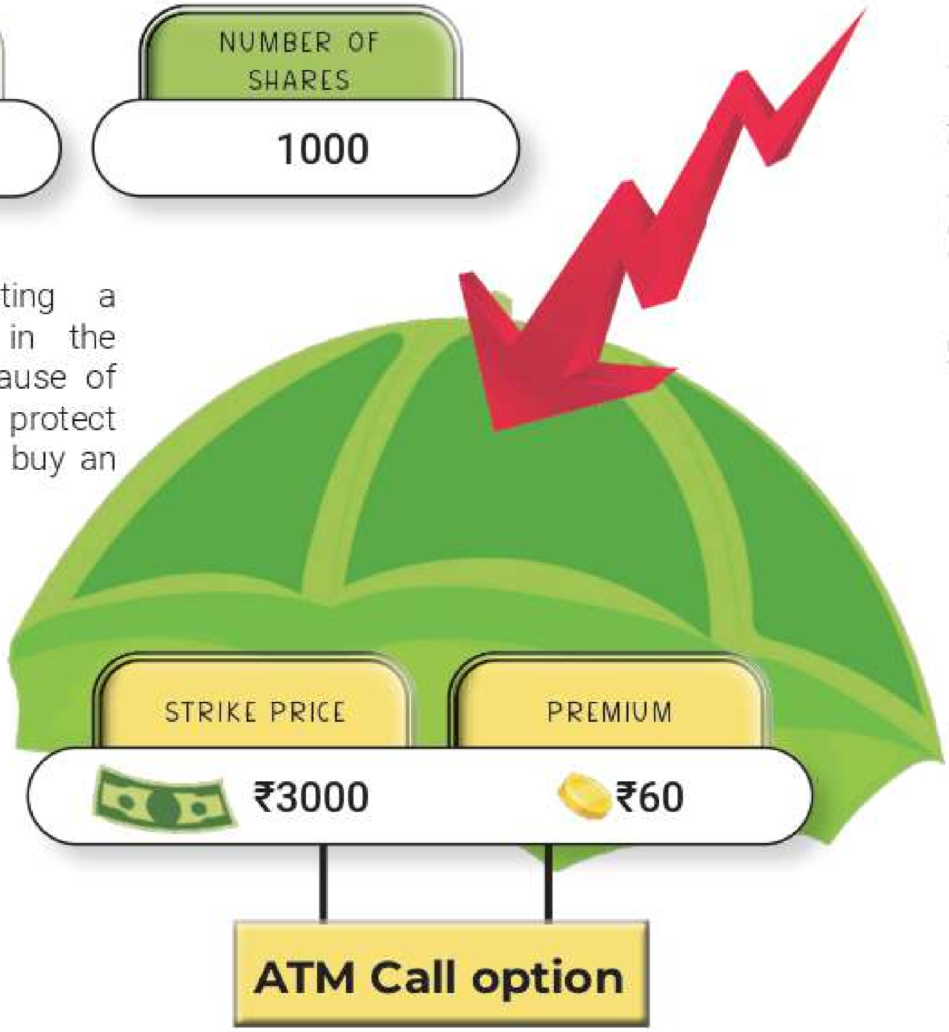
This strategy is exactly the opposite of Protective Put or Synthetic Call that we were discussing in the previous part. The name Synthetic Put again comes from the fact that this strategy also resembles a Simple Put option in terms of risk and reward potential.

The purpose of a synthetic put strategy is similar to a synthetic call strategy. The only difference is that here we are protecting ourselves from upside movement because we are short on the asset. Therefore, we are buying a call option in this strategy.

For example, suppose we are short on shares at (In India, you can not short shares which you can do in many developed markets, but you can short in Futures market) :

CURRENT MARKET PRICE	NUMBER OF SHARES
₹3000	1000

And we are expecting a temporary up move in the price of the stock because of some reason. Now, to protect ourselves from this, we buy an ATM call option at



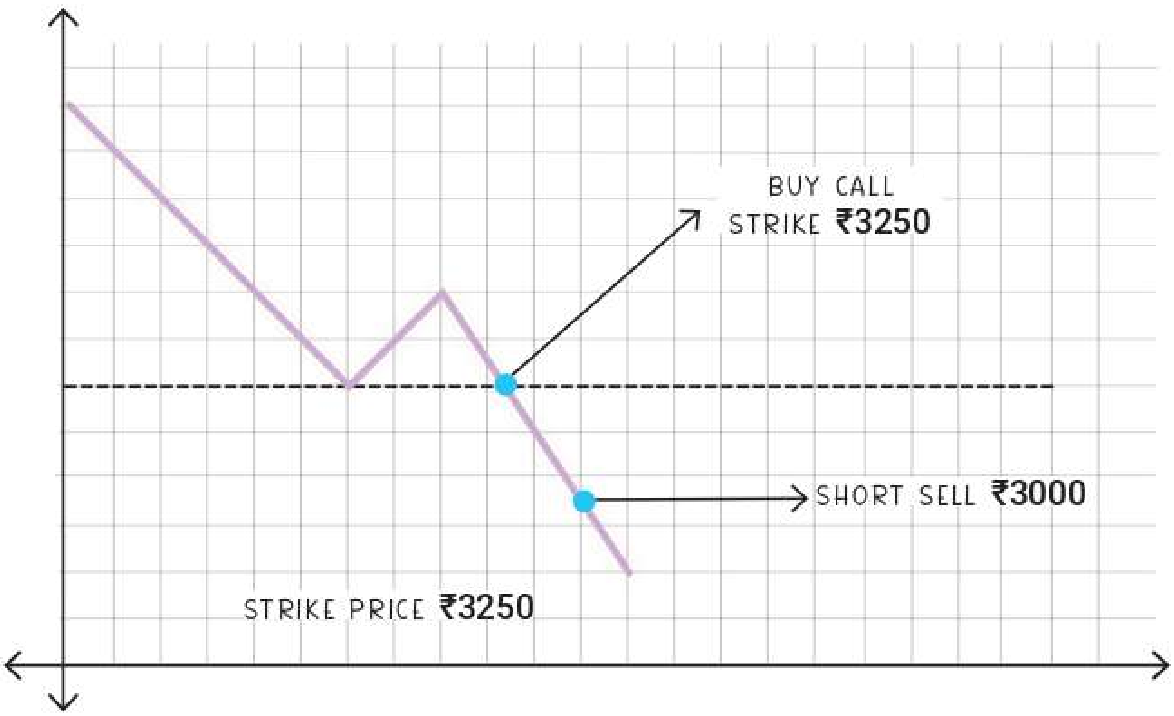
MARKET PRICE ON EXPIRY	CALCULATION
₹3500	**PROFIT/ LOSS =** Profit/Loss from Short Selling + Profit/Loss from options = (₹3000- ₹3500) + (₹3500 -₹3000 - ₹60) = -₹500 + ₹440 = -₹60 MAXIMUM LOSS So, we can see that our net loss should have been ₹500 but due to the limited loss nature of the agreement, the total loss was limited to ₹60 which is the maximum loss.

By applying this strategy, we have in a way insured ourselves from the expected loss for a specific period of time. We may protect ourselves again by entering this synthetic put as needed. Essentially, limited losses with call. The profit potential remains unlimited whereas the losses are limited to the premium amount paid.

WE MAY BE SHORT ON STOCK OR FUTURES AND LONG ON CALL ATM OR OTM AND THIS WILL CREATE OUR SYNTHETIC PUT. IN INDIA, A SHORT POSITION ON CASH IS NOT ALLOWED BUT ONE MAY DO SO USING FUTURES.

ASIAN PAINTS

Let us discuss another example of synthetic put.
A man sells 100 shares of Asian Paints at ₹3000 with the expectation that the price will decrease. Therefore, he hedges his position by buying a call option at a premium of ₹150 per share at a strike price of ₹3250 (say).



STRIKE PRICE	PREMIUM
₹3250	₹150

Synthetic PUT

Assuming,

MARKET PRICE ON EXPIRY	NET PROFIT/ LOSS	EXPLANATION
₹3500	**Profit/Loss** = Profit/Loss from ShortSell + Profit/Loss from Call Option = (₹3000 - ₹3500) +(₹3500 - ₹3250-₹150) = -500+100 = $\boxed{\text{-₹400}}$ MAXIMUM LOSS The Maximum Loss is limited to ₹400.	We can see that the price rises by ₹500. The loss for the trader should have been ₹500 but due to the synthetic put, the losses were limited. The losses here were limited to ₹400 as the options bought were out of money. This is what Protective Put does, it limits the losses for the trader.
₹2000	**Profit/Loss** = Profit/Loss from ShortSell + Profit/Loss from Call Option = (₹3000 - ₹2000) +(-₹150) = ₹1000 - ₹150 = **₹850**	Here, we can see that the trader would have made a profit of ₹1000. But due to the cost of Synthetic Put, the profit got reduced by ₹150 i.e. premium paid. Total Profit for the trader = ₹850.