Stock Option

Stock options give an investor the right but not the obligation to buy a call or sell a put at a set strike price prior to the contract's expiry date. Stock options are derivatives that means their value is derived from the value of an underlying equity.

Investors and traders can use stock options to take a long or short position in a stock without actually buying or shorting the stock. This is advantageous because taking a position with options allows the investor/trader more leverage in that the amount of capital needed is much less than a similar outright long or short position on margin. Investors/traders can therefore profit more from a price movement in the underlying stock.

Stock options provide investors a way to hedge risk or speculate. Also option trading can limit an investor's risk and leverage investing potential. Option investors have a number of strategies they can utilize, depending on risk tolerance and expected return.

Call options allows you to benefit from an upward price movement (by either selling the option at a profit or buying the stock at a discount relative to its current market value) while limiting losses to the premium paid if the price declines or remains constant. The right to buy stock at a fixed price becomes more valuable as the price of the underlying stock increases. An option seller earns the premium if the underlying stock price would not change much.

Put options may provide a more attractive method than shorting stock for profiting on stock price declines, in that, with purchased puts, you have a known and predetermined risk. The most you can lose is the cost of the option. If you short stock, the potential loss, in the event of a price upturn, is unlimited. If you have an established profitable long stock position, you can buy puts to protect this position against short-term stock price declines.

You can limit the risk of stock ownership by simultaneously buying a put on that stock, a hedging strategy commonly referred to as a "married put." This strategy establishes a minimum selling price for the stock during the life of the put and limits your loss to the cost of the put plus the difference, if any, between the purchase price of the stock and the strike price of the put, no matter how far the stock price declines. This strategy will yield a profit if the stock appreciation is greater than the cost of the put option.

Reference:

https://finpricing.com/lib/EqBarrier.html