Going Long on a Put (Buying the Option)

- This allows you to sell a number of shares of a stock at some agreed-upon *strike price*.
- Suppose the strike price is \$20 and the actual stock price falls to \$10. Then you can still sell the stock at \$20 to get payoff $20 - 10 = \$10$. Yay.
- Suppose instead that the stock price is \$30. Then the option to sell it at \$20 is useless since you can sell it for \$30 on the market.

Going Short on a Put (Selling the Option)

- You've agreed to buy a stock at the strike price, should the owner of the put choose to exercise that option.
- Suppose the strike price is \$20 and the actual price falls to \$10. Then the owner of the put will exercise their option. You have to buy the stock for \$20 even though it's only worth \$10, so your payoff is $-\$10$.
- On the other hand, if the actual price of the stock is \$30, then the owner of the put won't exercise the option and you're unaffected.

Going Long on a Call (Buying the Option)

- This allows you to buy a number of shares of a stock at some agreed-upon strike price.
- Suppose the strike price is \$20 and the actual stock price jumps up to \$30. Congratulations, you can buy it at only \$20, then turn around and sell it at the market price for \$30, getting a payoff of $30 - 20 = \$10$.
- On the other hand, if the strike price is \$20 and the stock price goes to \$10, then you won't exercise the option because you won't buy it at \$20 when you could buy it on the market for \$10.

Going Short on a Call (Selling the Option)

- You've agreed to sell a stock at the strike price, should the owner of the call choose to exercise that option.
- If the strike price is \$20 and the actual stock price is \$30, then whoever owns the call will exercise their option – they don't want to buy it at market price of \$30 if you're forced to sell it at only \$20. Thus you have payoff of $30 - 20 = -10$.
- If the strike price is \$20 and the actual stock price is \$10, then whoever owns the call will not exercise their option – they don't want to buy it from you at \$20 if they can get it from the market for only \$10.