Payoff graphs

Continuing the JAG token example from the previous section (trades at $100) we introduce the concept of a payoff graph. Payoff graphs are a great instrument to help gain an intuitive sense for options. We'll first example the payoff graphs that represent the potential profit or loss (P/L) for vanilla long/short asset positions. For example, if you are long an asset (such as ETH), the P/L graph is as follows:

You can see that your risk is proportional to how many tokens you buy. Buying 5 JAG tokens will mean that you make or lose $5 for every one dollar move in the token price. The maximum gain from being long a token is potentially unlimited, the maximum loss is the amount you purchase the token for.

Instead of buying first, and selling later, you can sell first and hope to buy back the token at a lower price, this is known as short selling (or shorting). The payoff graph for shorting is as follows:

The maximum gain for a short token position is the amount you sell the token for. The maximum loss is unlimited, as the price of a token can rise forever. Note that these payoffs are the inverse of a long token position. For example, Alice can borrow JAG tokens for $100, and sell it in the market. If the price falls to $90, Alice can buy it back, return the tokens to the person she borrowed them from whilst banking $10 in

profit.