Moneyness: in, at and out of the money

> **MONEYNESS**
>
> Where the strike sits relative to the underlying: in the money (the option has intrinsic value - a call whose strike is below the underlying, a put whose strike is above), at the money (strike near the underlying), out of the money (no intrinsic value, all time value). Moneyness describes an option's character - how much of its premium is intrinsic, how sensitive it is to the underlying, how likely to expire with value - in one word.

Moneyness is the vocabulary for where an option stands relative to its underlying - a single word that tells you how much of the premium is intrinsic, how the option will behave, and roughly how likely it is to finish with value.

The three states

In the money: the option has intrinsic value - a call with the strike below the underlying, a put with the strike above; its premium is part intrinsic, part time value, and it behaves more like the underlying the deeper in the money it is.At the money: the strike sits near the underlying; the premium is almost all time value, and this is where time value and volatility sensitivity are greatest - the most 'optionlike' state.Out of the money: no intrinsic value - a call with the strike above the underlying, a put below; the premium is entirely time value, and the option is a pure bet that the underlying moves far enough to bring it in before expiry.

What moneyness tells you

Moneyness is shorthand for an option's whole character. A deep in-the-money option is mostly intrinsic value, moves nearly one-for-one with the underlying, and is an expensive, share-like position. An out-of-the-money option is all time value, cheap, highly sensitive to volatility and time, and likely to expire worthless unless the underlying moves - the lottery-ticket end, where most retail premium is spent and lost. At the money is the balance point, maximum time value and maximum sensitivity to the forces module 1 has taught. Reading an option's moneyness is reading, in one word, what kind of position it is.

The bridge to breakeven

Moneyness describes where the option is now; breakeven (lesson 9) describes where the underlying must go for a bought option to profit - and the two together are the buyer's whole geography. An out-of-the-money call is cheap but has a distant breakeven; an in-the-money call is expensive but a nearer one; and the choice between them is a trade-off moneyness names and breakeven quantifies. The next lesson makes breakeven the anchor of the whole track, because it is the single number that says what an options position actually needs to happen - and moneyness is the word that sets it up.

Check your understanding

1. What does 'out of the money' mean?

a. The option is worthless

b. The option has no intrinsic value - a call with the strike above the underlying, a put below - so its premium is entirely time value, a pure bet the underlying moves far enough

c. The option is in profit

Answer: b. No intrinsic value, all time value - cheap, volatility-sensitive, and likely to expire worthless unless the underlying moves. The lottery-ticket end where most retail premium is lost.

2. Where is an option's time value and volatility sensitivity greatest?

a. Deep in the money

b. At the money: the strike near the underlying, premium almost all time value - the most 'optionlike' state, maximally sensitive to time and volatility

c. Far out of the money

Answer: b. At the money is the balance point of maximum time value. Deep in-the-money options behave share-like; at-the-money options are where the option forces are strongest.