



WHAT IS A SYNTHETIC

A SYNTHETIC IS

a combination of financial instruments that mimics the risk and reward profile of another instrument, typically an option or a stock. Traders use synthetic positions to replicate the payoff of a specific strategy without necessarily executing the exact trades associated with that strategy. The two primary components involved in creating synthetic positions are call options, put options, and the underlying stock.

SYNTHETIC LONG POSITION

1. Components:

- **Long Call Option**
- **Short Put Option**
- **Structure:** Buy a call and sell a put with the same strike price and expiration. A long call and a short put are both long delta positions. Long stock is long delta as well. A long delta call and a long delta put with the same strike is synthetically equivalent to being long stock.
- **Deltas:** Long call delta + short put delta = 100. Long stock delta = 100

SYNTHETIC SHORT POSITION

1. Components:

- **Short Call Option**
- **Long Put Option**
- **Structure:** Sell a call and buy a put with the same strike price and expiration. A short call and a long put are both short delta positions. Short stock is short delta as well. A short delta call and a short delta put with the same strike is synthetically equivalent to being short stock.
- **Deltas:** Short call delta + long put delta = -100. Short stock delta = -100