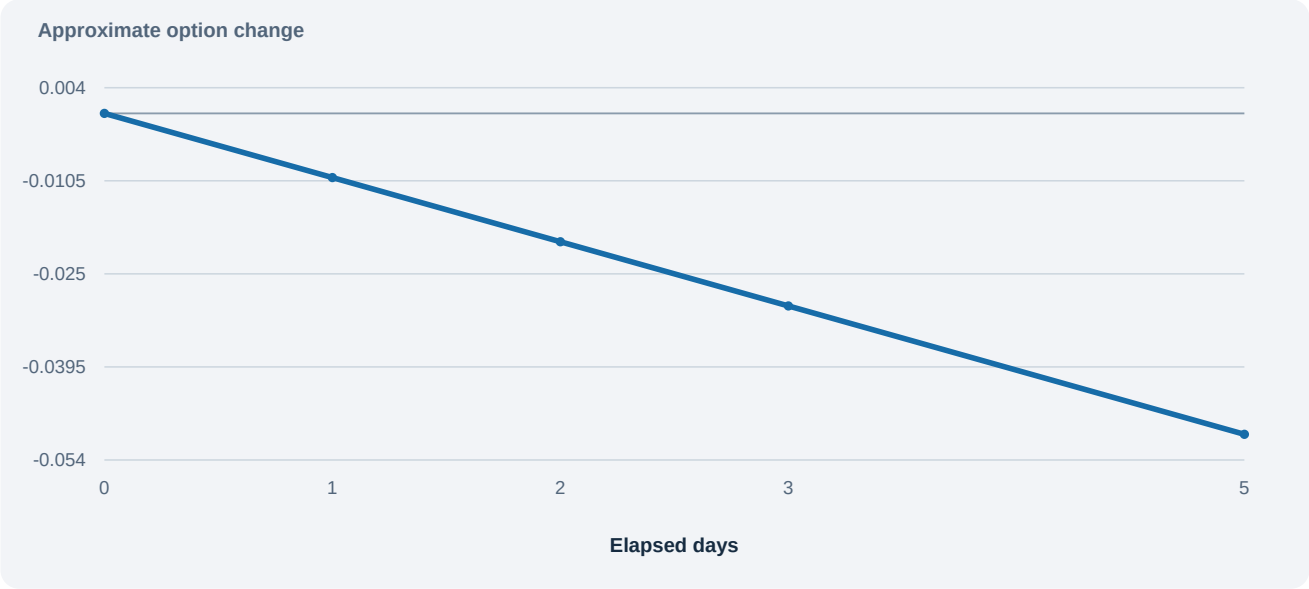
A short-horizon theta estimate

Option sensitivities | Original synthetic example | Edition 2026-11-26

Theta is a local estimate of option-value change as time passes with other inputs held fixed. A daily theta should not be assumed constant throughout the remaining life.

FORMULA Approximate time change = daily theta x elapsed days

SCENARIO 01: Daily theta -0.01; a local constant-theta estimate



WORKED EXAMPLE

Over two days, the linear estimate is -0.01 x 2 = -0.02. Actual theta and other inputs change.

COMMON MISTAKE

Projecting one day's theta over months ignores changing time sensitivity and other pricing inputs.

BEFORE YOU USE THE CALCULATION

1. Verify calendar or trading-day convention.
2. Use a short horizon.
3. Treat the estimate as local and conditional.

COMPARE TWO MORE INPUT SETS

Scenario 05: Daily theta -0.05; a local constant-theta estimate. Over two days, the linear estimate is -0.05 x 2 = -0.10. Actual theta and other inputs change.

Scenario 10: Daily theta -0.10; a local constant-theta estimate. Over two days, the linear estimate is -0.10 x 2 = -0.20. Actual theta and other inputs change.

Synthetic values are not historical market data. Educational material; trading can result in substantial losses.