

```

17, 2027-12-17')
-----
Estimated historical vol (annual) from 1y data: 32.3034%
Black-Scholes call price (S=239.58070373535156, K=170.0, r=0.05, q=0.0, sigma=32.3034%, T=0.046575) = 69.9761
>>>
===== RESTART: /Users/yucheang/Documents/Economics/Black-Schole Model version 2.py =====
Valuation date: 2025-07-01, Expiry date: 2025-07-18, T = 0.046575 years
-----
Fetched spot for AAPL: 239.5550
-----
Expiry 2025-07-18 not found in yfinance option chain list. Available expiries: ('2025-09-19', '2025-09-26', '2025-10-03', '2025-10-10', '2025-10-17', '2025-10-24', '2025-10-31', '2025-11-21', '2025-12-19', '2026-01-16', '2026-02-20', '2026-03-20', '2026-04-17', '2026-05-15', '2026-06-18', '2026-08-21', '2026-09-18', '2026-12-18', '2027-01-15', '2027-06-17', '2027-12-17')
-----
Estimated historical vol (annual) from 1y data: 32.3027%
-----
Black-Scholes call price (S=239.55499267578125, K=170.0, r=0.05, q=0.0, sigma=32.3027%, T=0.046575) = 69.9504
>>>
===== RESTART: /Users/yucheang/Documents/Economics/Black-Schole Model version 2.py =====
Valuation date: 2025-07-01, Expiry date: 2025-07-18, T = 0.046575 years
-----
Fetched spot for AAPL: 239.5299
-----
Expiry 2025-07-18 not found in yfinance option chain list. Available expiries: ('2025-09-19', '2025-09-26', '2025-10-03', '2025-10-10', '2025-10-17', '2025-10-24', '2025-10-31', '2025-11-21', '2025-12-19', '2026-01-16', '2026-02-20', '2026-03-20', '2026-04-17', '2026-05-15', '2026-06-18', '2026-08-21', '2026-09-18', '2026-12-18', '2027-01-15', '2027-06-17', '2027-12-17')
-----
Estimated historical vol (annual) from 1y data: 32.3019%
-----
Black-Scholes call price (S=239.5299072265625, K=170.0, r=0.05, q=0.0, sigma=32.3019%, T=0.046575) = 69.9253
>>>
===== RESTART: /Users/yucheang/Documents/Economics/Black-Schole Model version 2.py =====
Valuation date: 2025-07-01, Expiry date: 2025-07-18, T = 0.046575 years
-----
Fetched spot for AAPL: 239.5335
-----
Expiry 2025-07-18 not found in yfinance option chain list. Available expiries: ('2025-09-19', '2025-09-26', '2025-10-03', '2025-10-10', '2025-10-17', '2025-10-24', '2025-10-31', '2025-11-21', '2025-12-19', '2026-01-16', '2026-02-20', '2026-03-20', '2026-04-17', '2026-05-15', '2026-06-18', '2026-08-21', '2026-09-18', '2026-12-18', '2027-01-15', '2027-06-17', '2027-12-17')
-----
Estimated historical vol (annual) from 1y data: 32.3020%
-----
Black-Scholes call price (S=239.5334930419922, K=170.0, r=0.05, q=0.0, sigma=32.3020%, T=0.046575) = 69.9289
>>>
===== RESTART: /Users/yucheang/Documents/Economics/Black-Schole Model version 2.py =====
Valuation date: 2025-07-01, Expiry date: 2025-07-18, T = 0.046575 years
-----
Fetched spot for AAPL: 239.5350
-----
Expiry 2025-07-18 not found in yfinance option chain list. Available expiries: ('2025-09-19', '2025-09-26', '2025-10-03', '2025-10-10', '2025-10-17', '2025-10-24', '2025-10-31', '2025-11-21', '2025-12-19', '2026-01-16', '2026-02-20', '2026-03-20', '2026-04-17', '2026-05-15', '2026-06-18', '2026-08-21', '2026-09-18', '2026-12-18', '2027-01-15', '2027-06-17', '2027-12-17')
-----
Estimated historical vol (annual) from 1y data: 32.3021%
-----
Black-Scholes call price (S=239.53500366210938, K=170.0, r=0.05, q=0.0, sigma=32.3021%, T=0.046575) = 69.9304
>>>

```