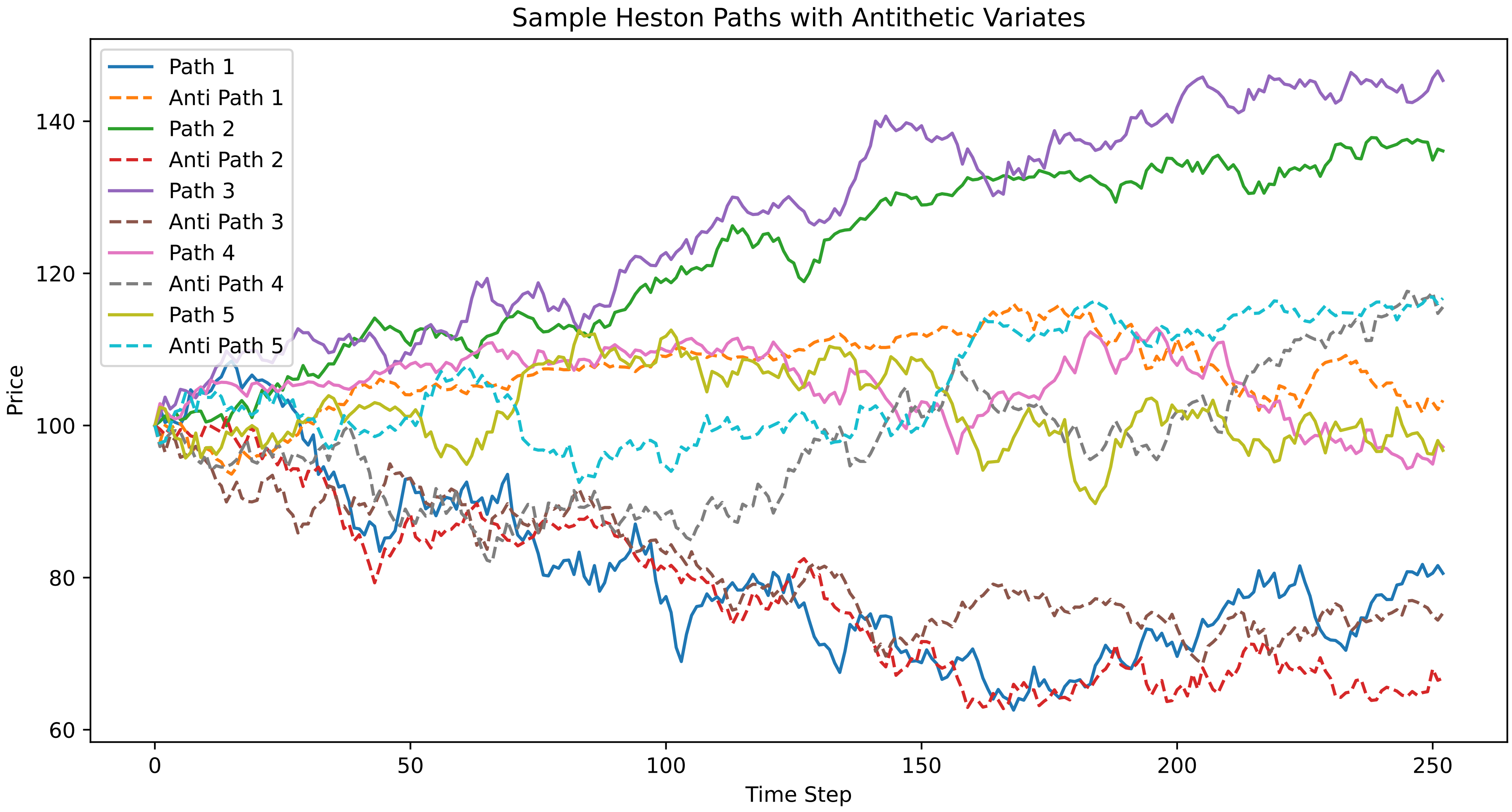
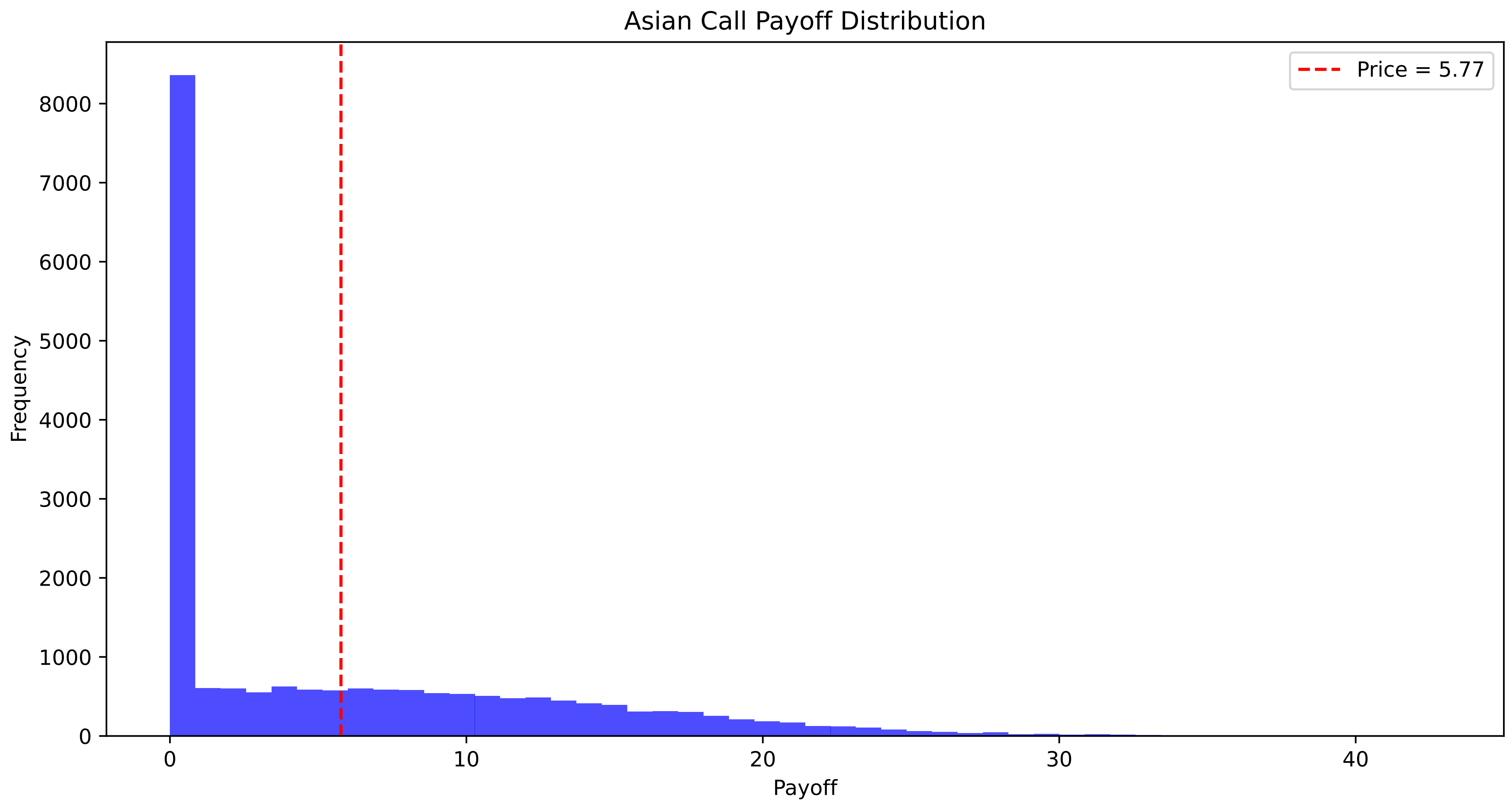
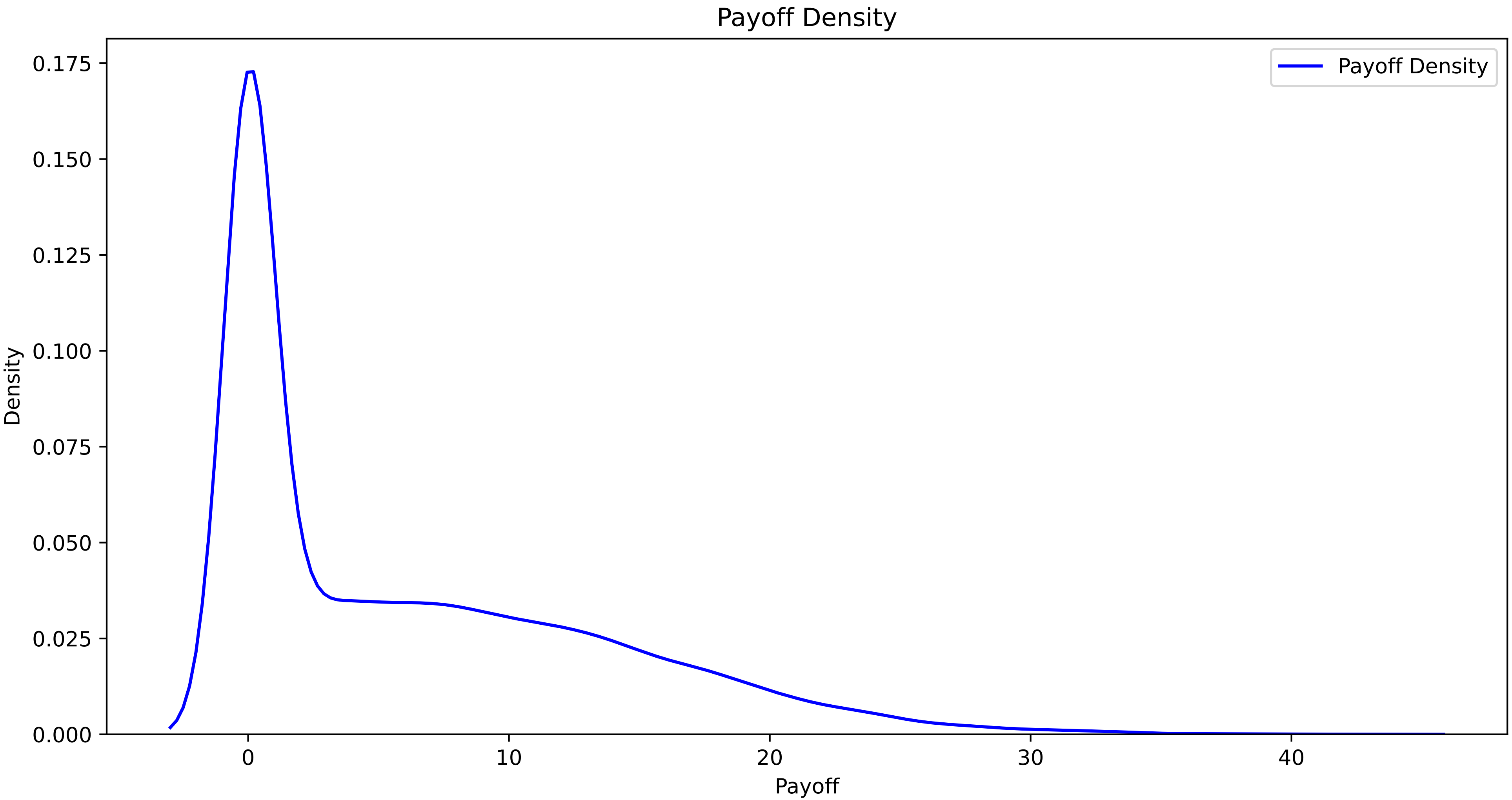


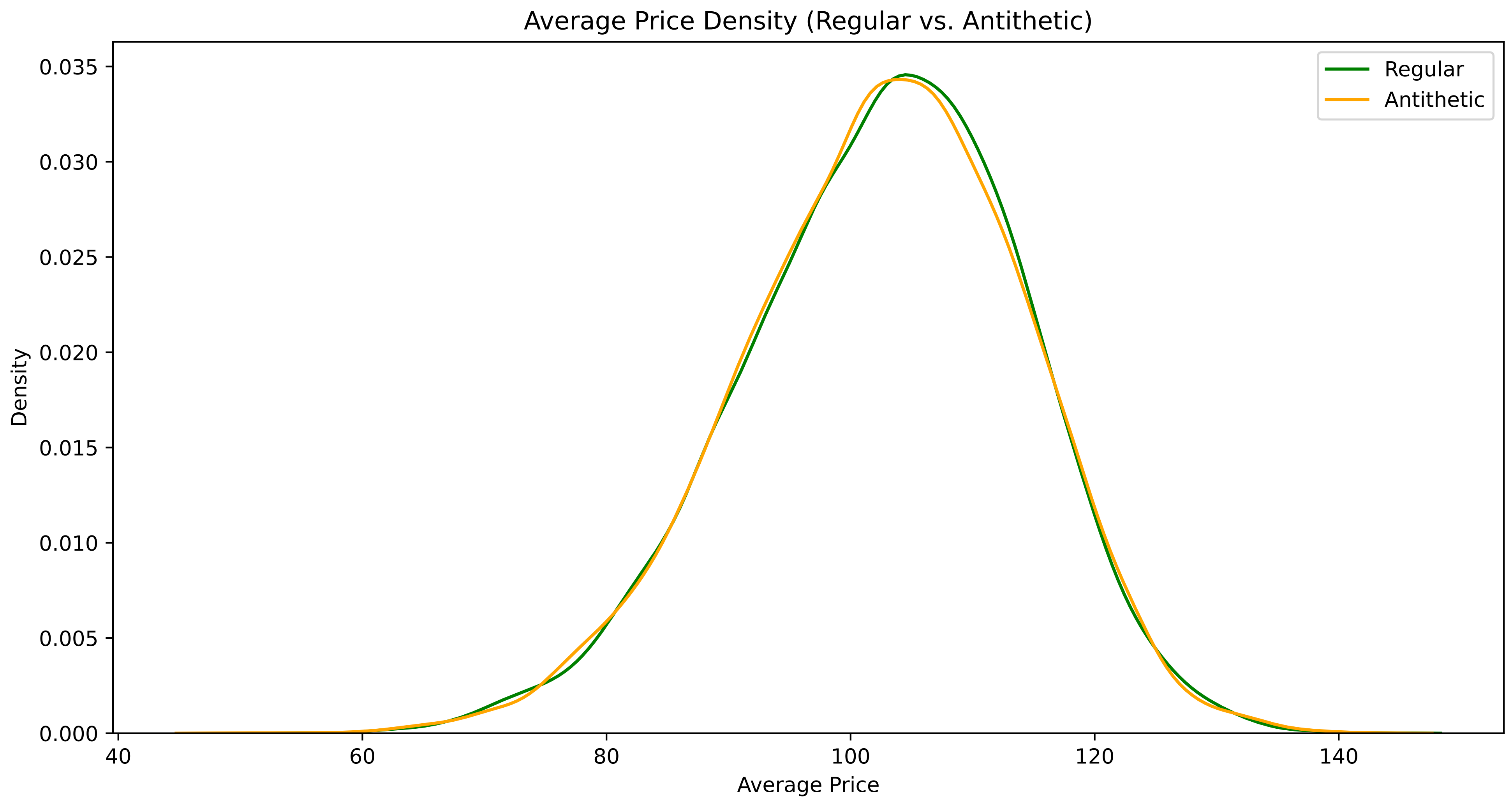
Sample Heston Paths with Antithetic Variates
Path 1
Anti Path 1
Path 2
Anti Path 2
Path 3
Anti Path 3
Path 4
Anti Path 4
Path 5
Anti Path 5
Price
140
120
100
80
60
0
50
100
150
200
250
Time Step

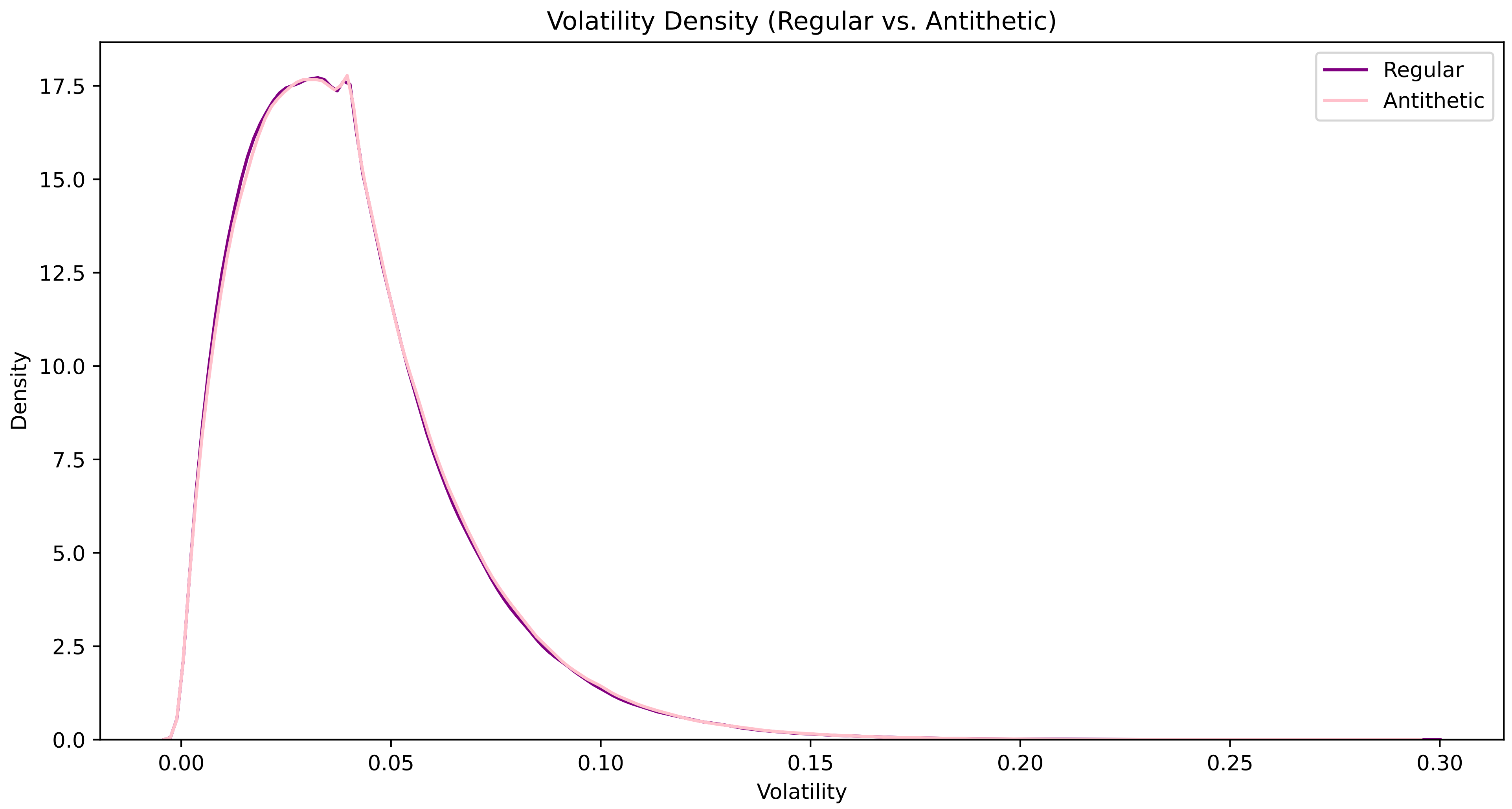


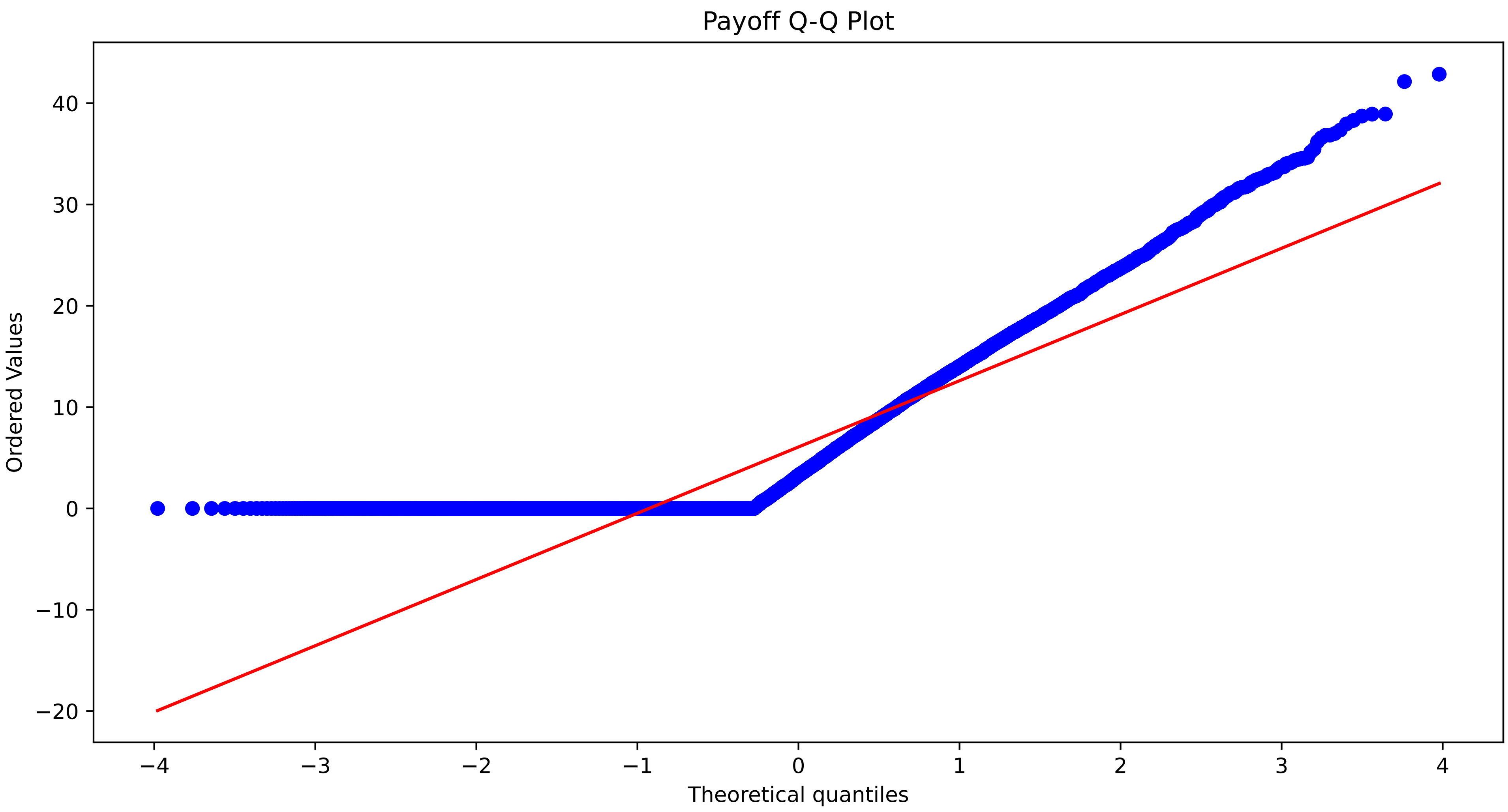
Asian Call Payoff Distribution
Price = 5.77
Frequency
Payoff
0
1000
2000
3000
4000
5000
6000
7000
8000
0
10
20
30
40

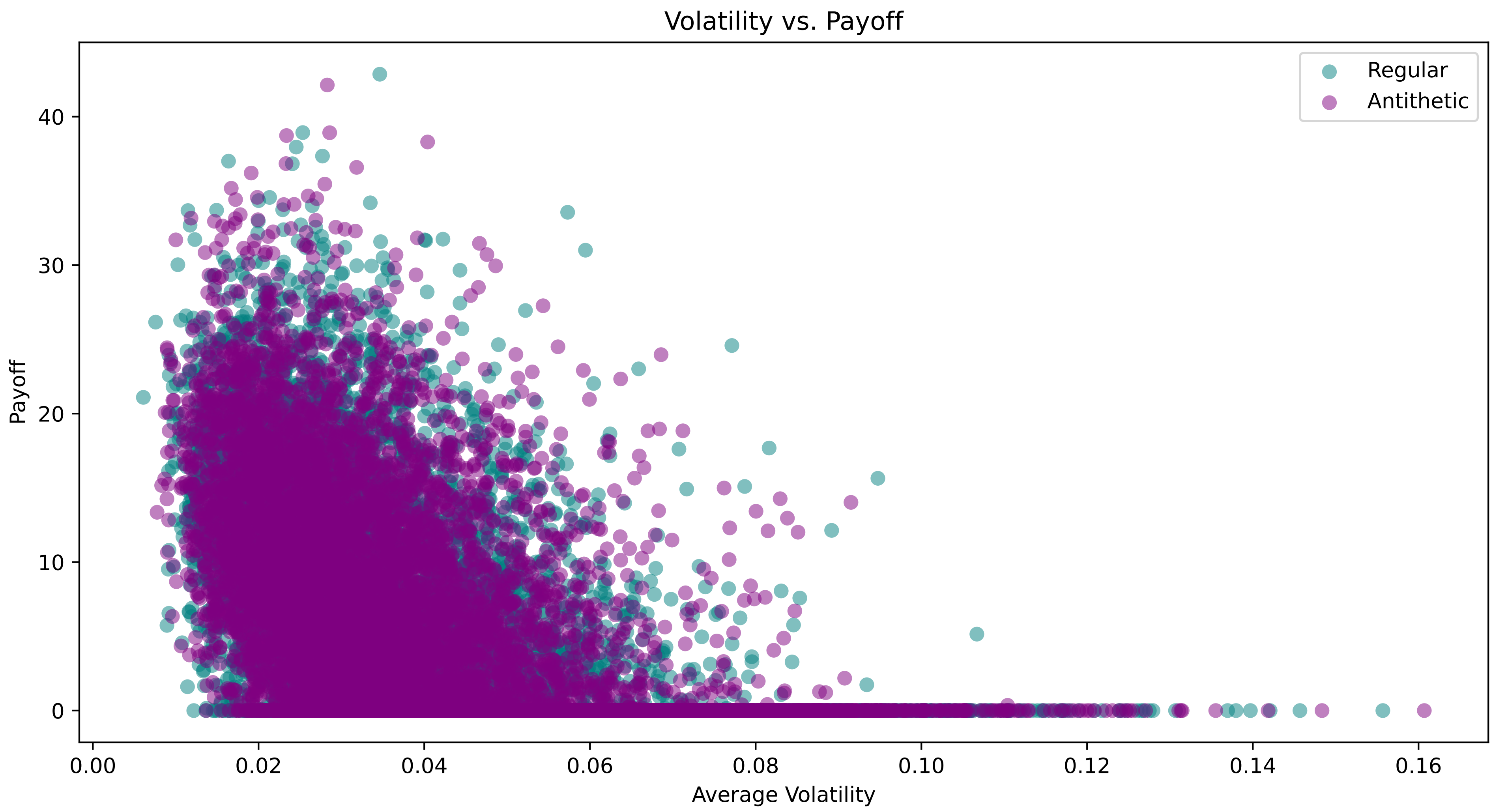


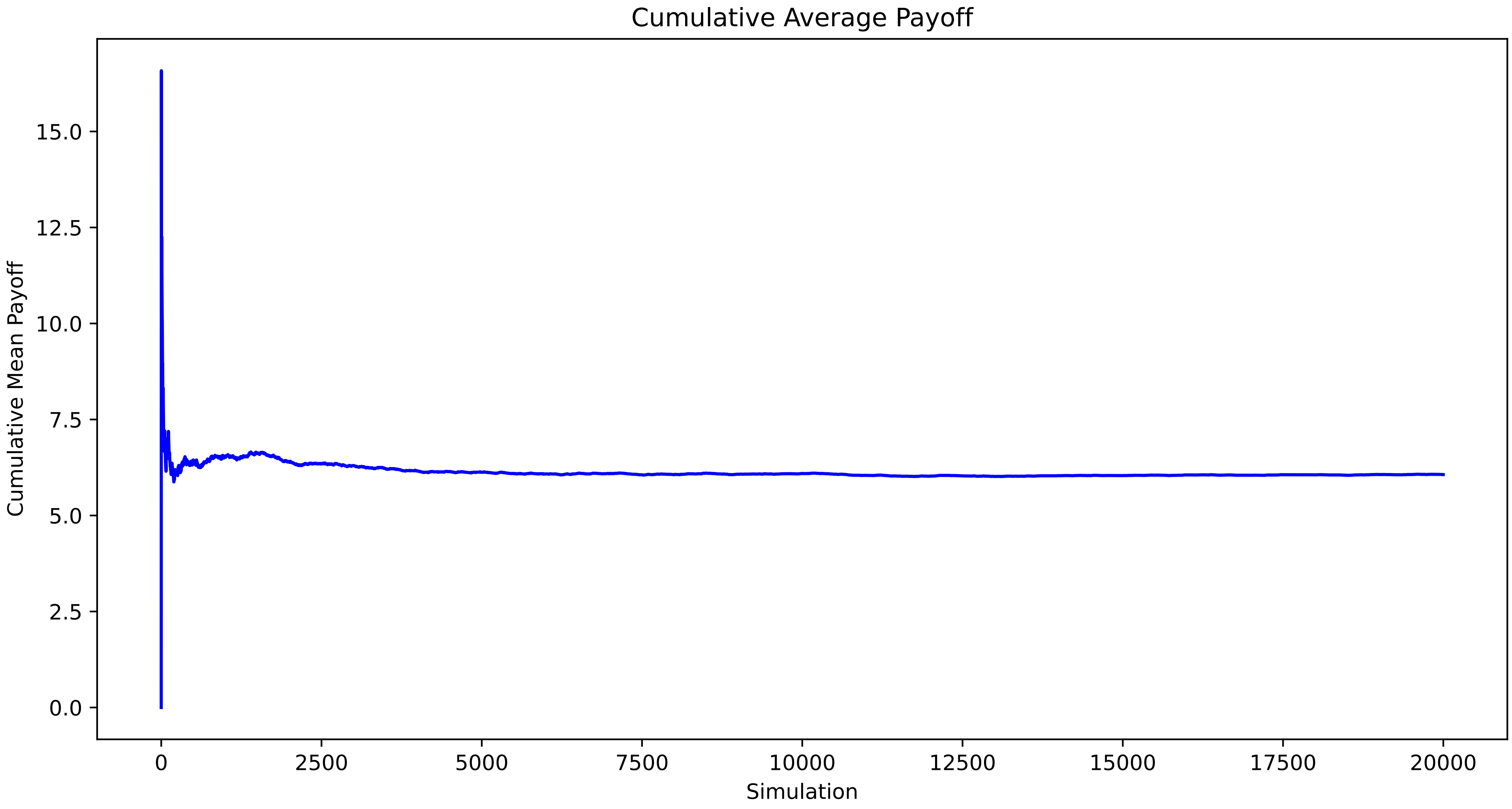
Payoff Density
Payoff Density
Density
Payoff
0.000
0.025
0.050
0.075
0.100
0.125
0.150
0.175
0
10
20
30
40


Average Price Density (Regular vs. Antithetic)
Regular
Antithetic
Density
0.000
0.005
0.010
0.015
0.020
0.025
0.030
0.035
40
60
80
100
120
140
Average Price

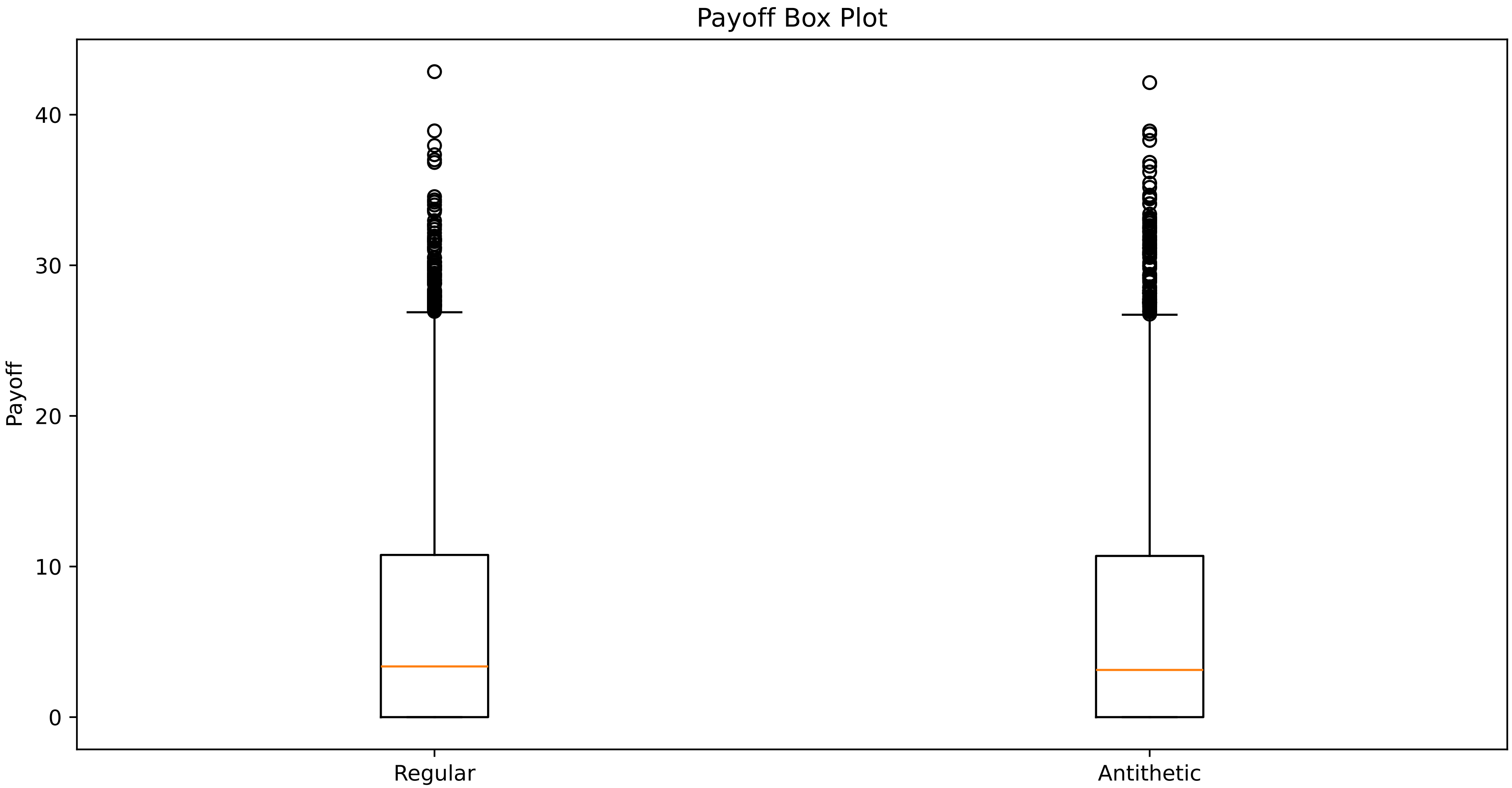

Volatility Density (Regular vs. Antithetic)
Regular
Antithetic
Density
17.5
15.0
12.5
10.0
7.5
5.0
2.5
0.0
0.00
0.05
0.10
0.15
0.20
0.25
0.30
Volatility


Payoff Q-Q Plot
Ordered Values
Theoretical quantiles
40
30
20
10
0
−10
−20
−4
−3
−2
−1
0
1
2
3
4


Volatility vs. Payoff
Regular
Antithetic
Payoff
0
10
20
30
40
0.00
0.02
0.04
0.06
0.08
0.10
0.12
0.14
0.16
Average Volatility



Cumulative Average Payoff
Cumulative Mean Payoff
Simulation
0.0
2.5
5.0
7.5
10.0
12.5
15.0
0
2500
5000
7500
10000
12500
15000
17500
20000


Payoff Box Plot
Payoff
0
10
20
30
40
Regular
Antithetic

Summary Statistics

Metric	Payoff	Avg Price	Volatility
Mean	6.0650292231786445	102.59426237150154	0.03981903939778362
Median	3.2589691016698126	103.36577657339522	0.03538217148601912
Std	7.20388524536257	11.552667522823432	0.026021668131425577
Min	0.0	54.61830969064945	0.0
Max	42.85579993780473	142.85579993780473	0.29596021443341136
Skew	1.1350918621129864	-0.29088363298841646	1.380986315944171
Kurtosis	0.6450881968129787	0.026871334778614475	3.3200059362501495