

Lecture 4 report

Krzysztof Ruczkowski

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zad1

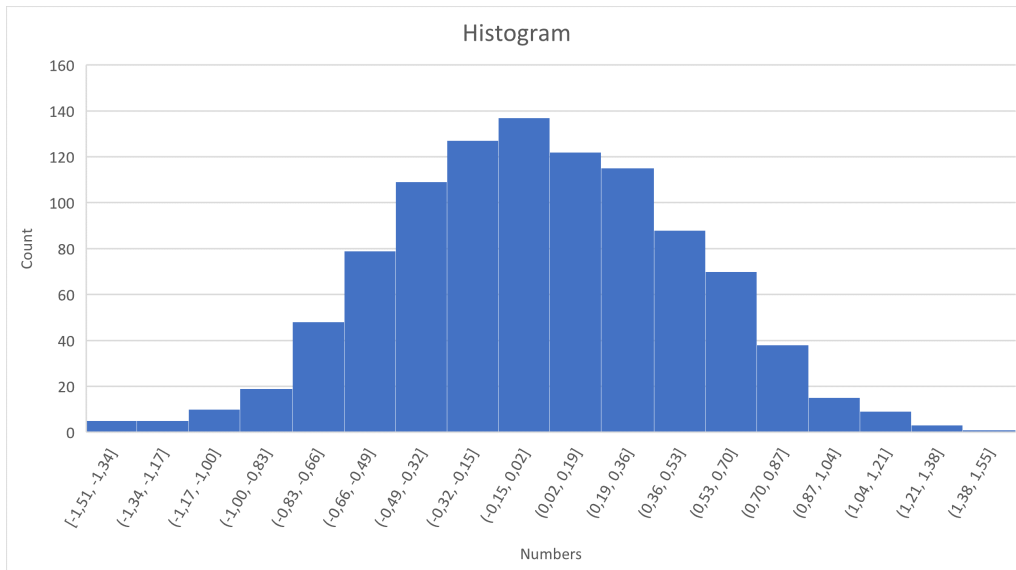


Figure 1: Box-Muller distribution check ($\mu = 0, \sigma = 0.5$)

zad2

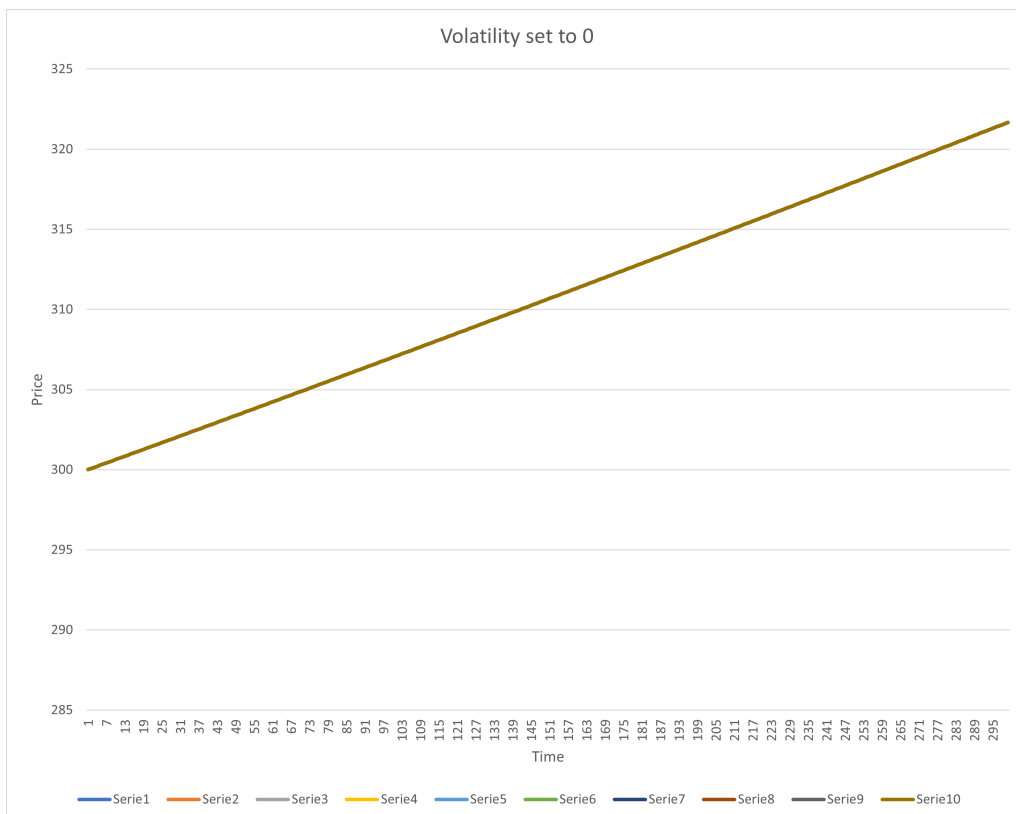


Figure 2: Volatility set to 0

When volatility is set to 0, then the stock price is constant (with discounting in effect).

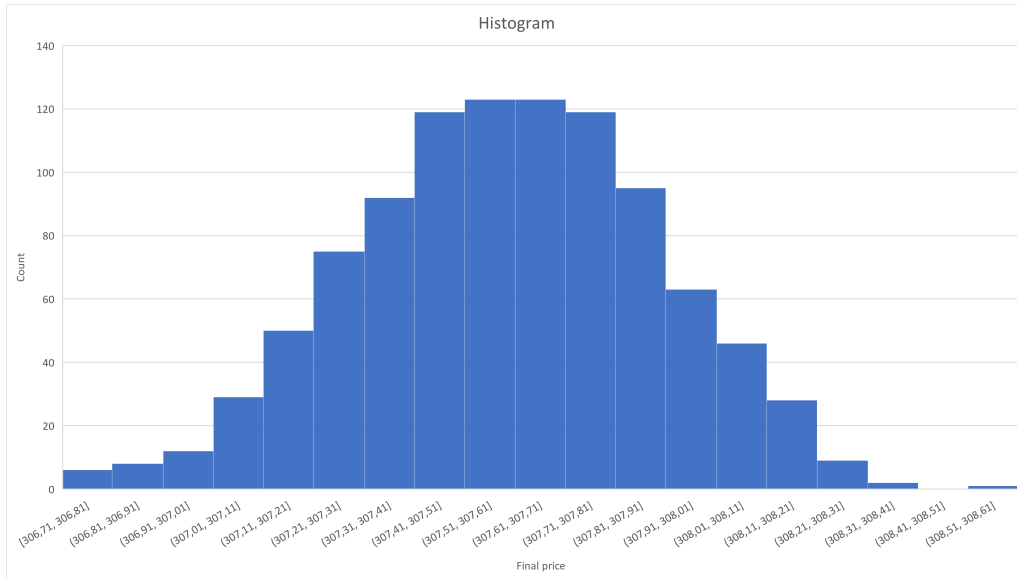


Figure 3: Histogram of 1000 final stock prices

Average historical volatility was smaller than input volatility (average ≈ 0.001 , input 0.03)

zad3

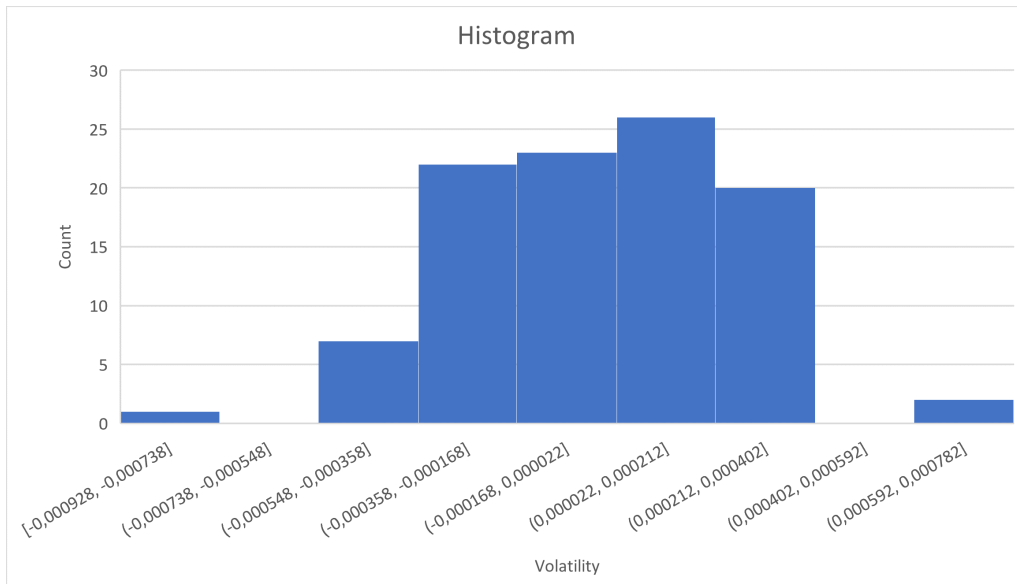


Figure 4: Histogram of historical volatility (AEX stock, 2021.05.03)