Hedging options on the stock market

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BSM model

Model for generating the stock price.

Model	Initial stock price ($)	Risk free rate (%)	Volatility (%)	Drift	Date (years)	Maturity (years)
BSM	100	0.05	0.1	0	2	4

Delta-hedging

Implementation of delta-hedging strategy.

Simulation model

Simulation model is used to generate stock prices.

Initial stock price ($)	Risk free rate (%)	Volatility (%)	Drift	Date (years)
1	5	20	0.1	0

Pricing model

Pricing model is used to calculate the amount to charge the customer and the amount of stock to hold at each time.

Initial stock price ($)	Risk free rate (%)	Volatility (%)	Drift	Date (years)
1	5	20	0.1	0

Call option

Parameters of a hedged option.

Maturity (years)	Number of steps
1	10

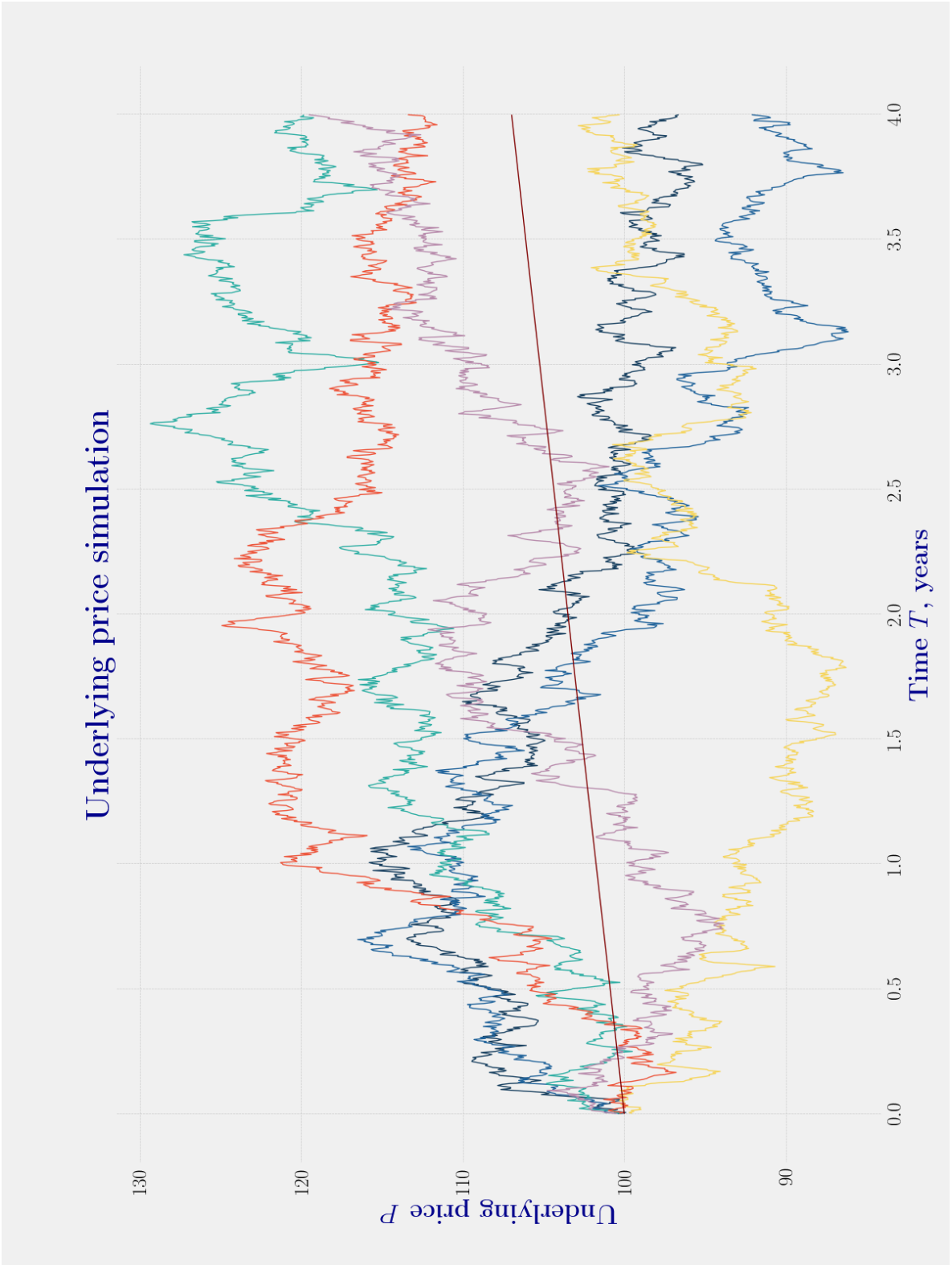

Figure 1: New image

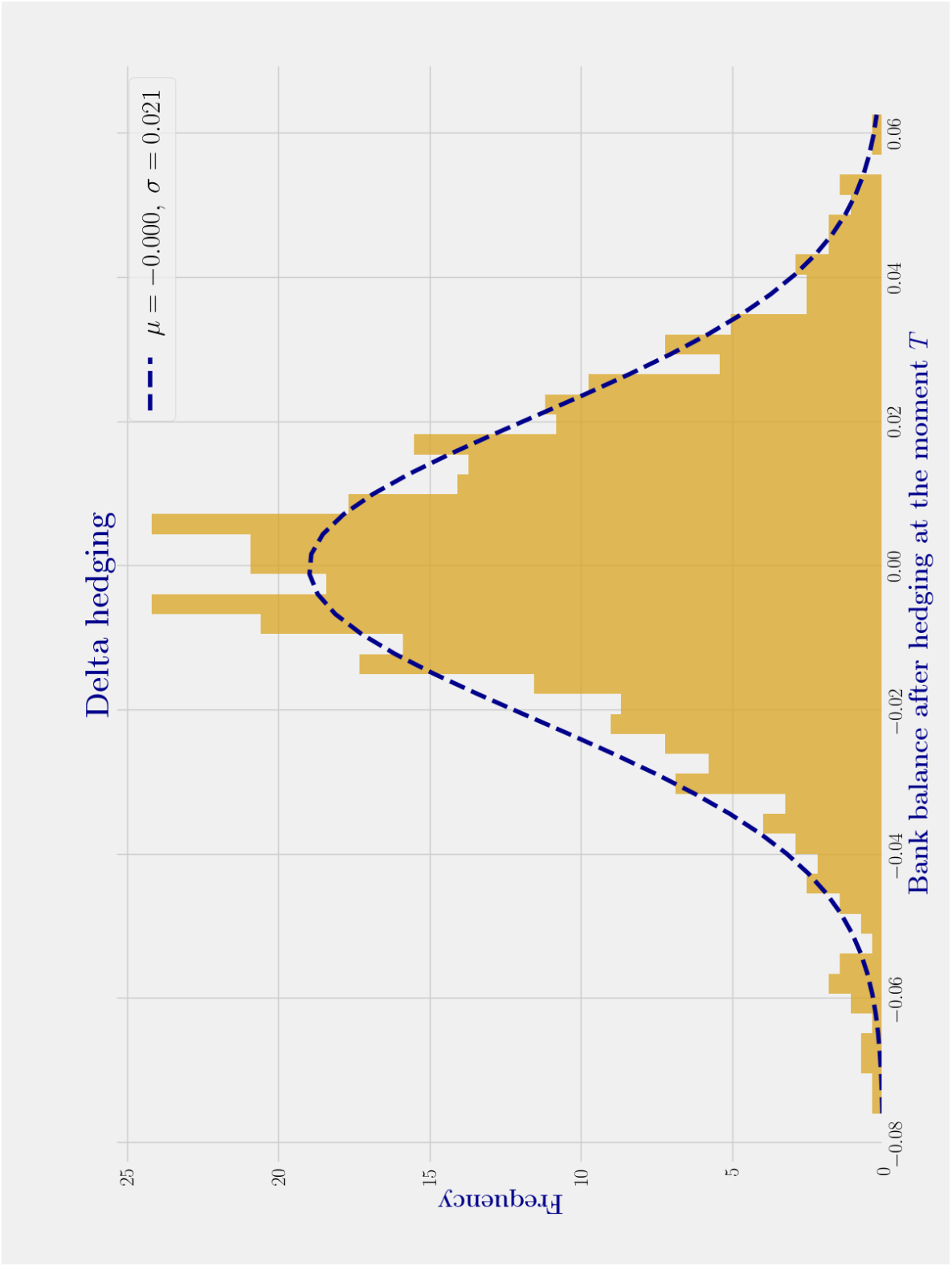

Figure 2: New image