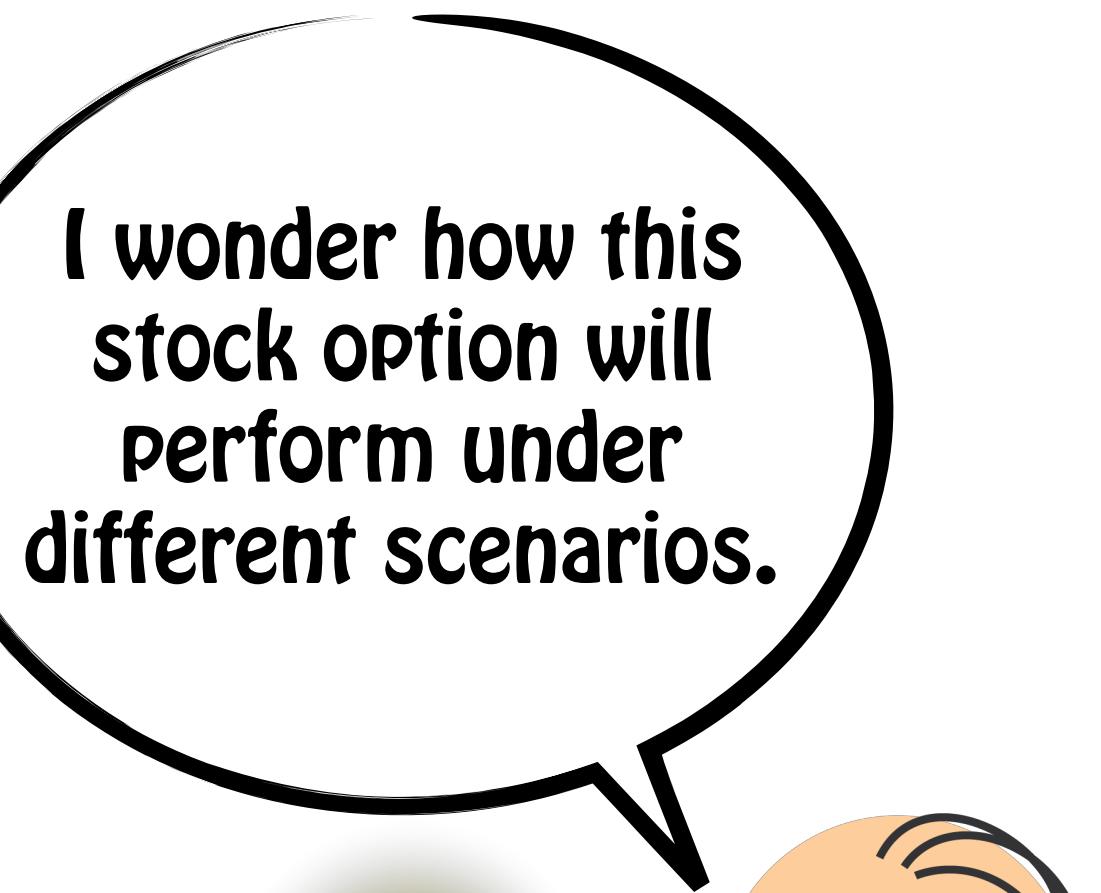
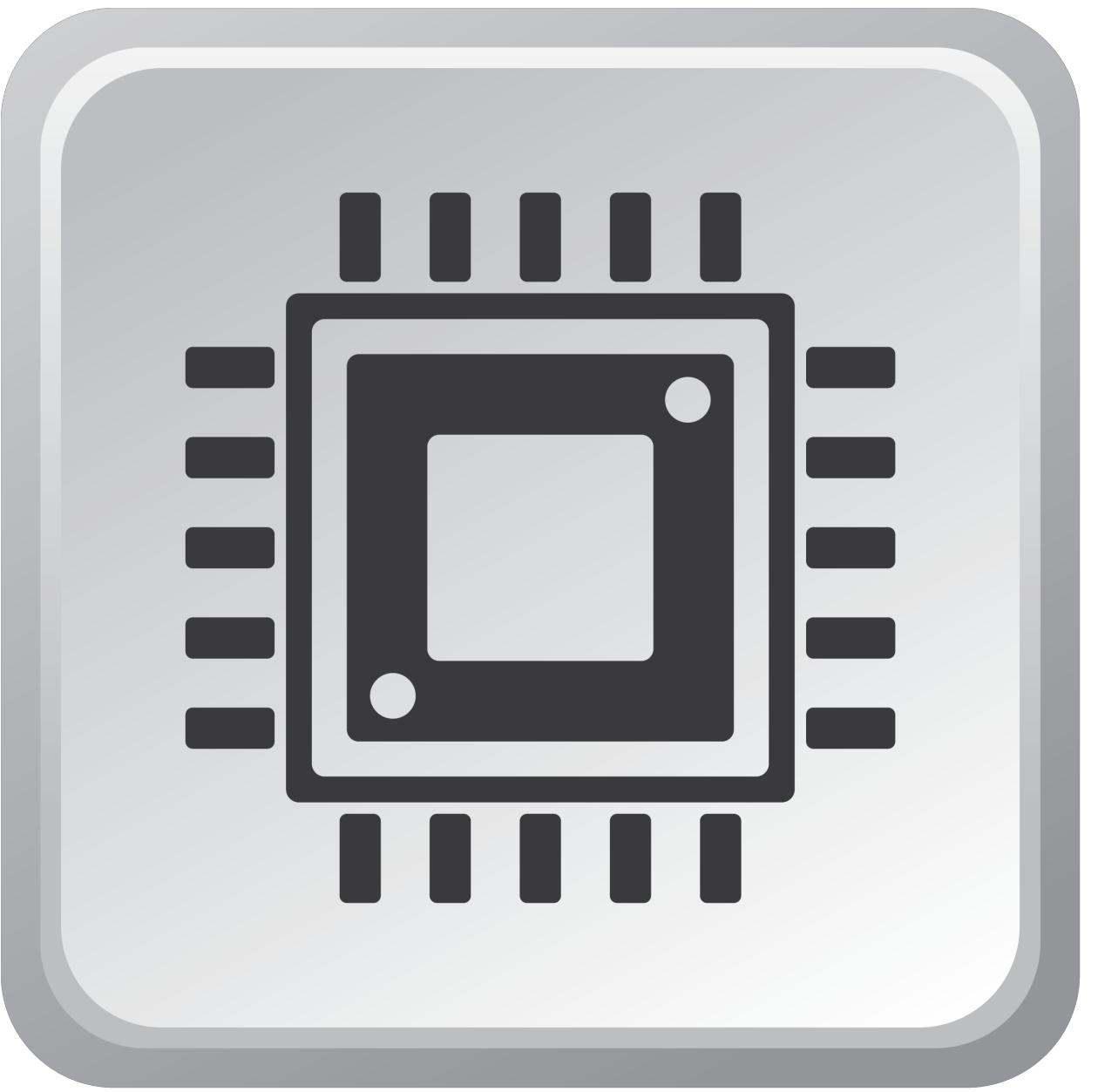


Common Probability Distributions

Monte Carlo Simulation

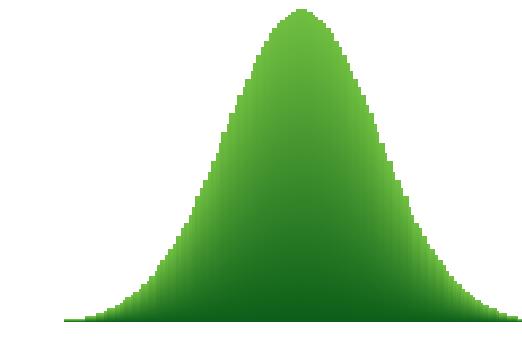
Monte Carlo Simulation



Monte Carlo Simulation

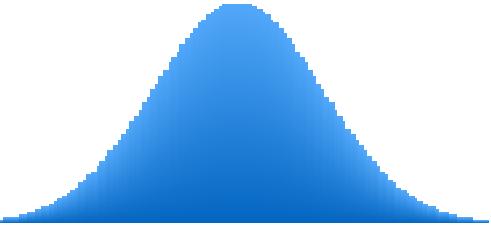
Quantity of Interest

Stock option value = FUNCTION (Stock price , Interest rates)



Stock Price
Model

Interest Rates
Model



Stock option value = FUNCTION (Stock price , Interest rates)

April

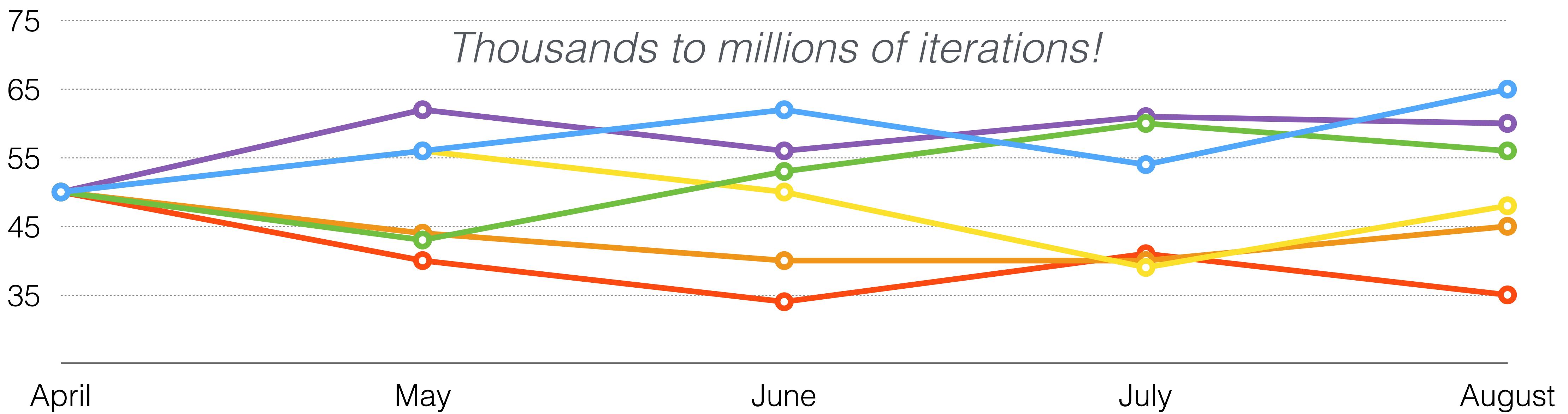
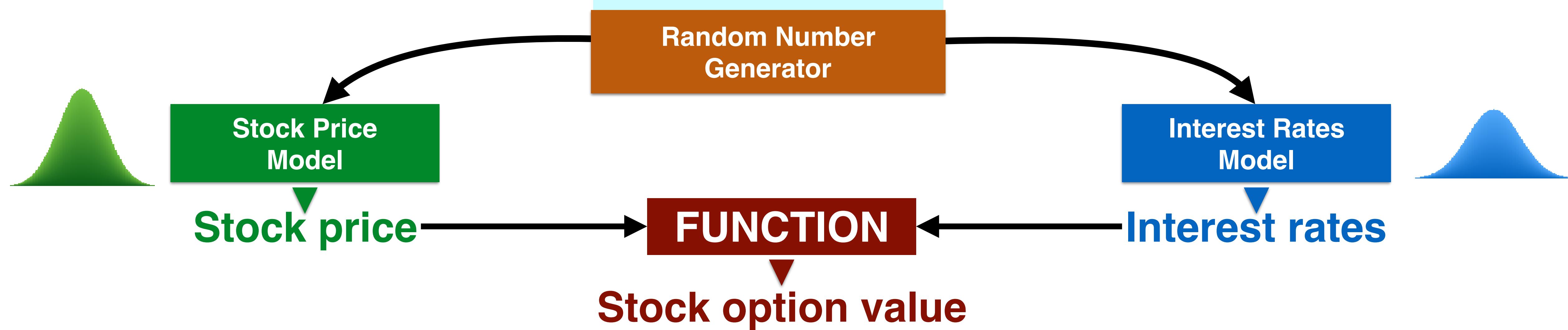
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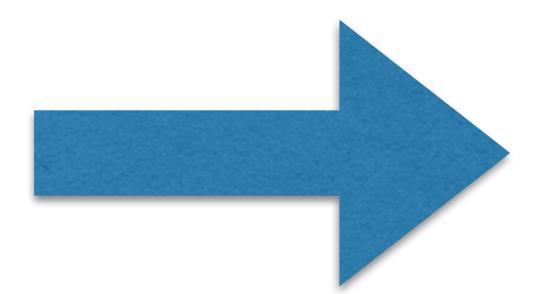
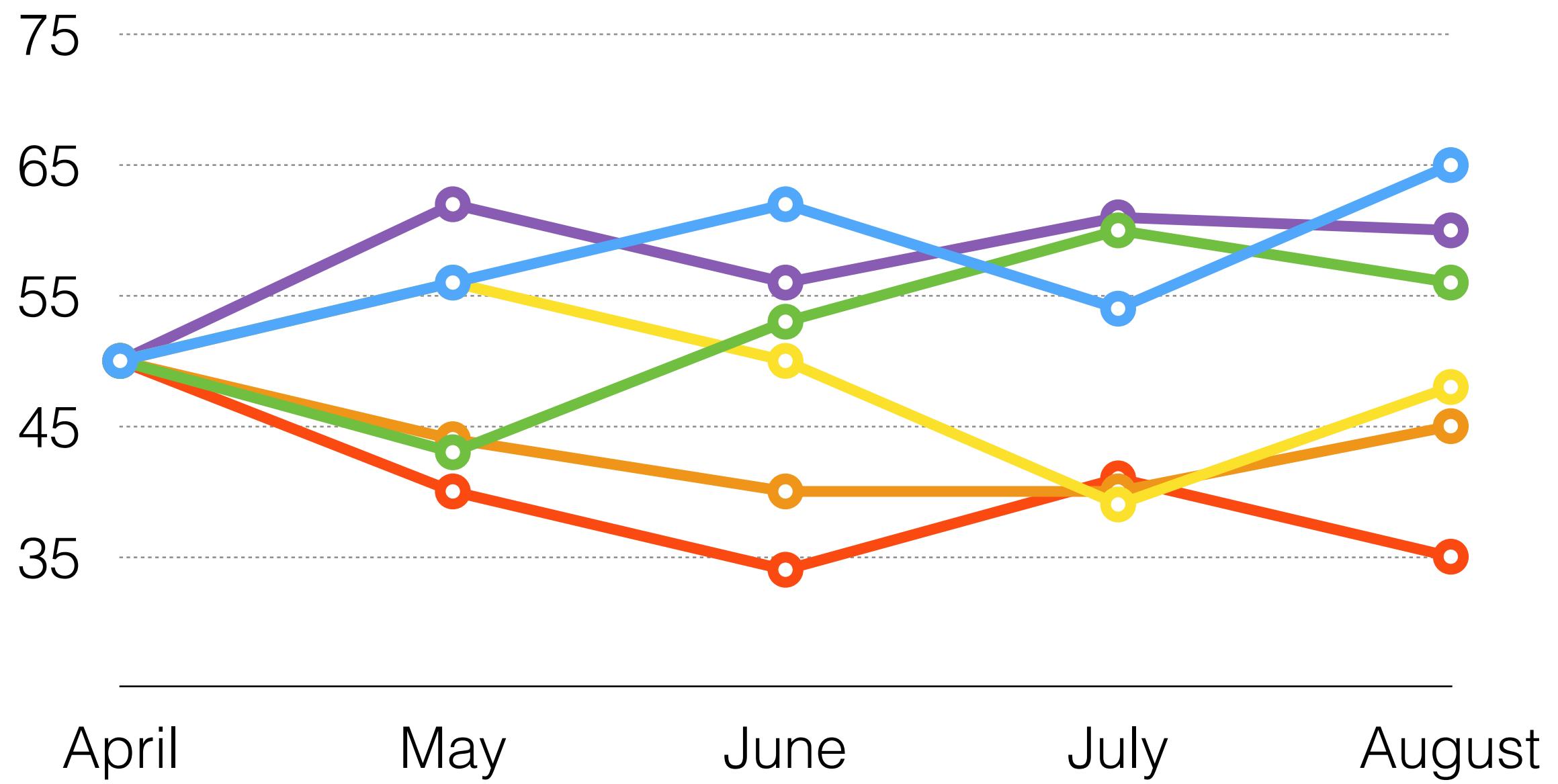
June

July

August

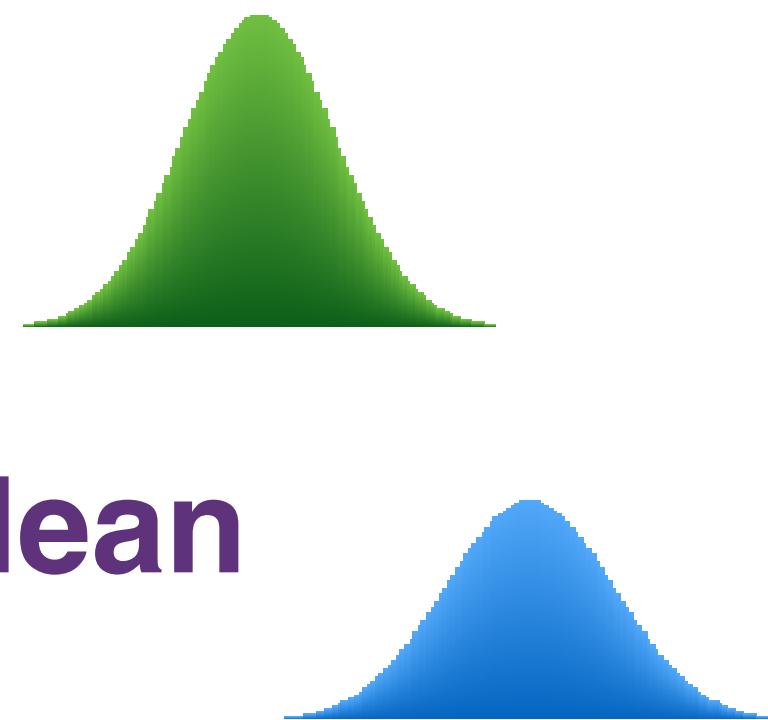
Monte Carlo Simulation





Mean

Standard deviation



Monte Carlo Simulation

Applications of Monte Carlo Simulation in Finance

- valuing complex securities
- evaluating trading strategies
- calculate estimates of value at risk
- simulate pension fund assets and liabilities
- value assets that have non-normal returns distribution

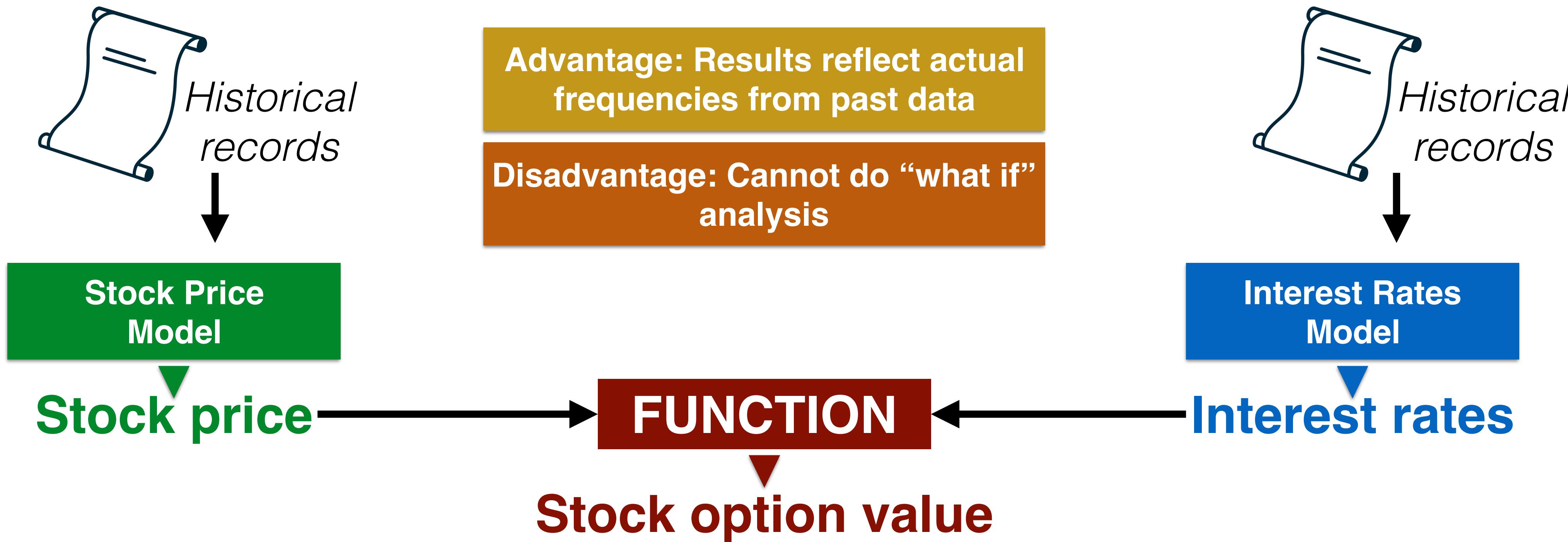


Limitations of Monte Carlo Simulation

- ✓ complexity in modeling
- ✓ results highly dependent of models and assumptions
- ✓ cannot provide analytical insights



Historical Simulation





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