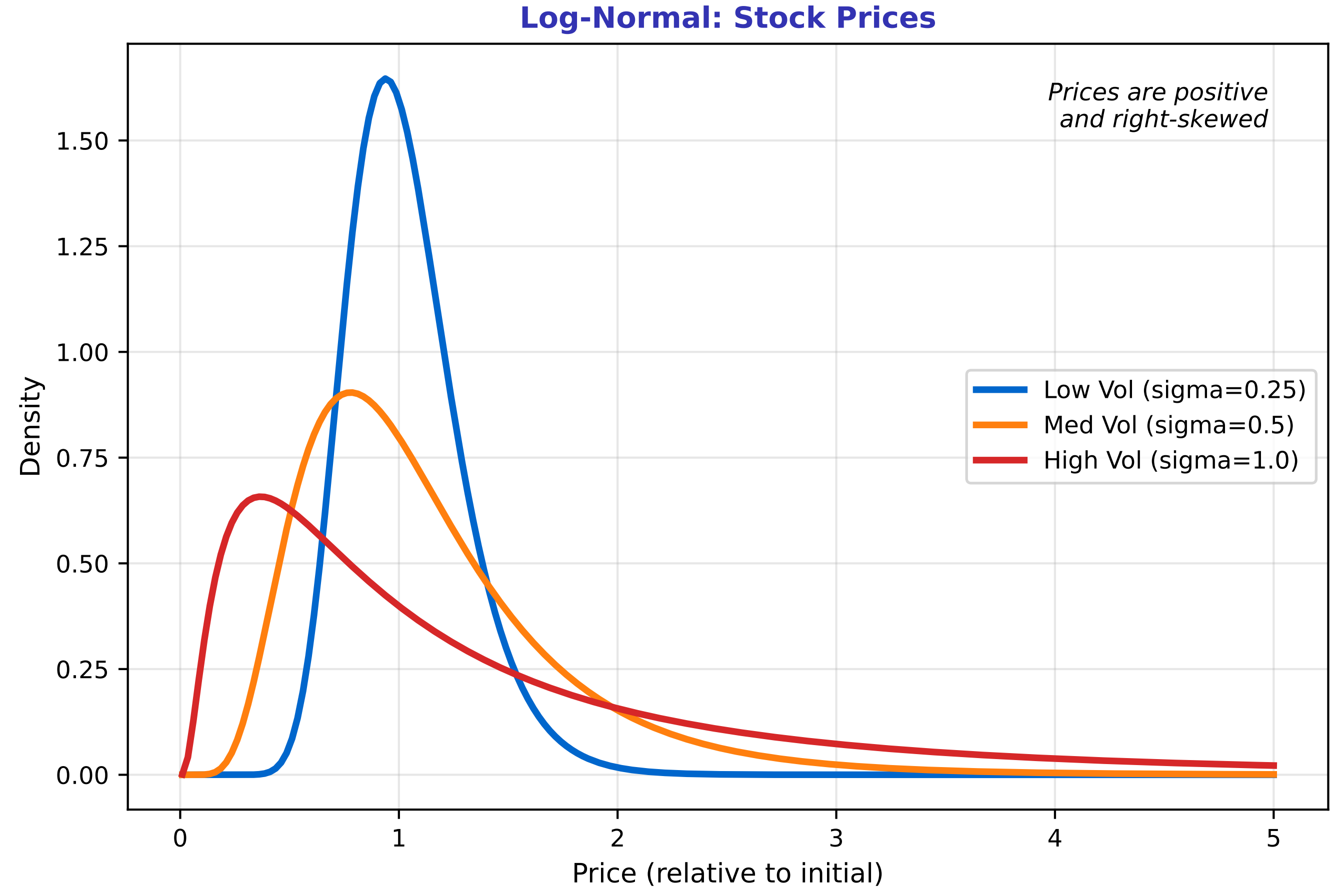
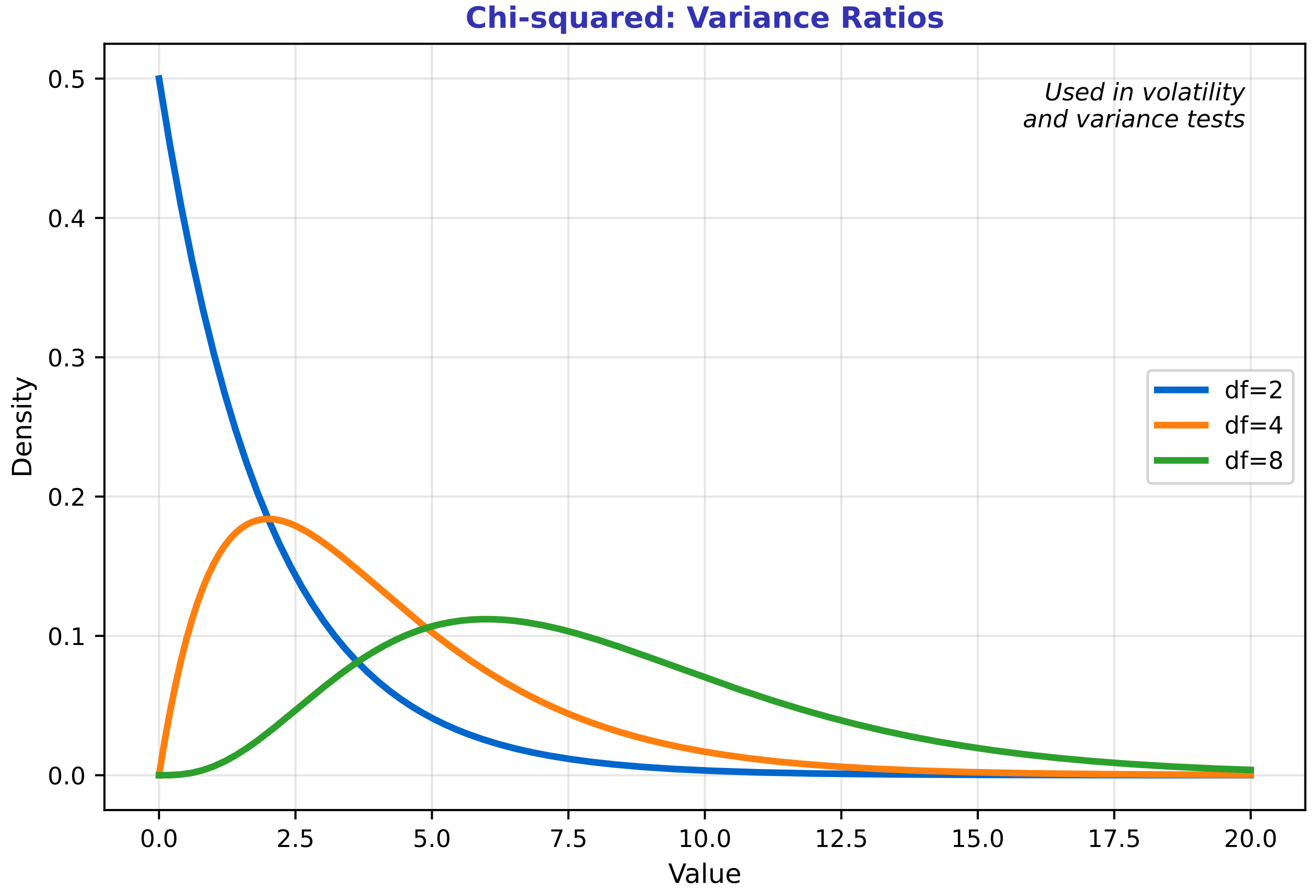
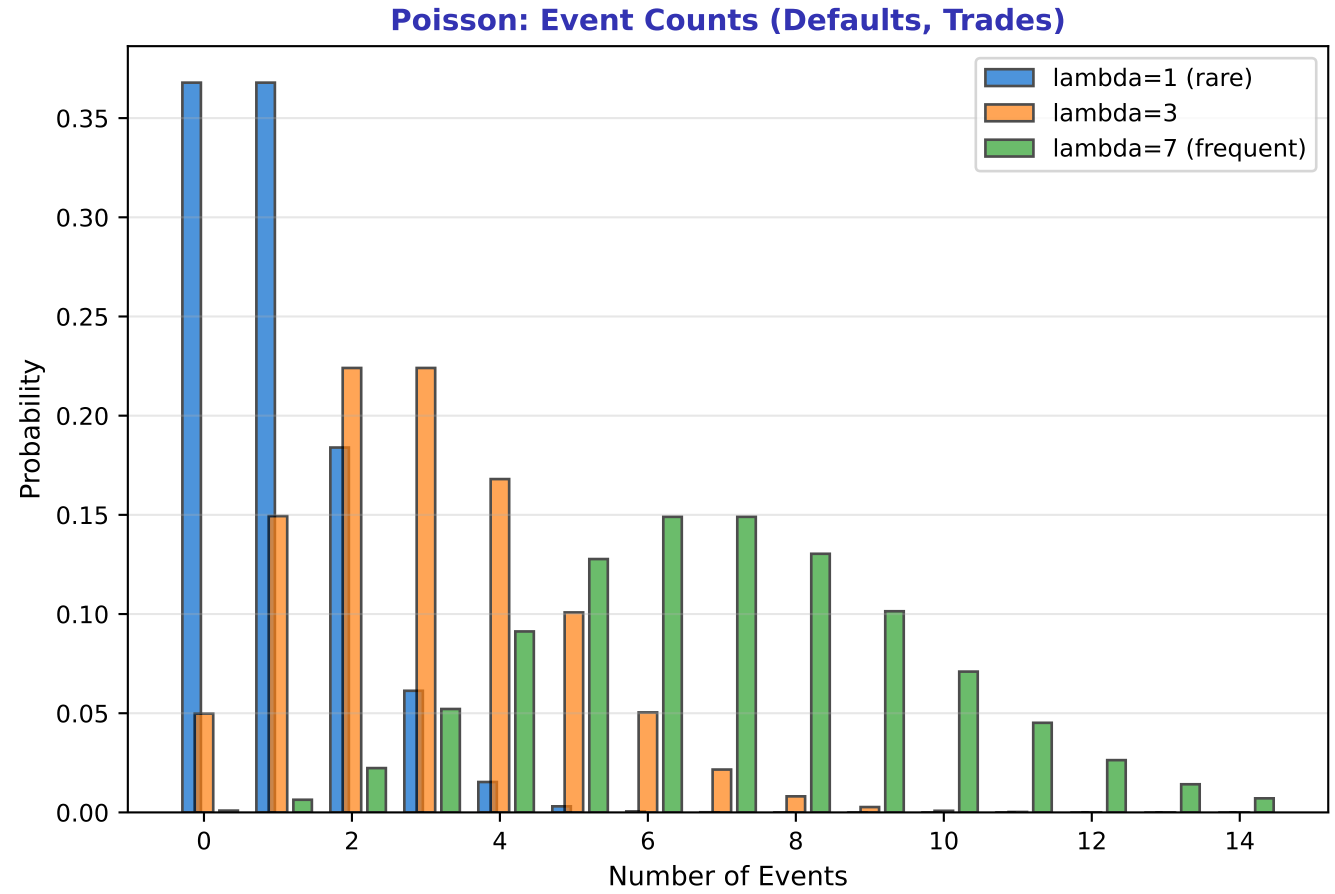
Distributions in Finance







Distribution Applications in Finance

Normal:	Returns (short-term)	Mean-variance optimization
Log-Normal:	Stock prices	Option pricing (Black-Scholes)
t-distribution:	Returns (fat tails)	Risk management, VaR
Chi-squared:	Variance ratios	Volatility tests
Poisson:	Event counts	Default modeling, trade arrivals
Exponential:	Time between events	Duration models

Key: Choose distribution based on data characteristics!