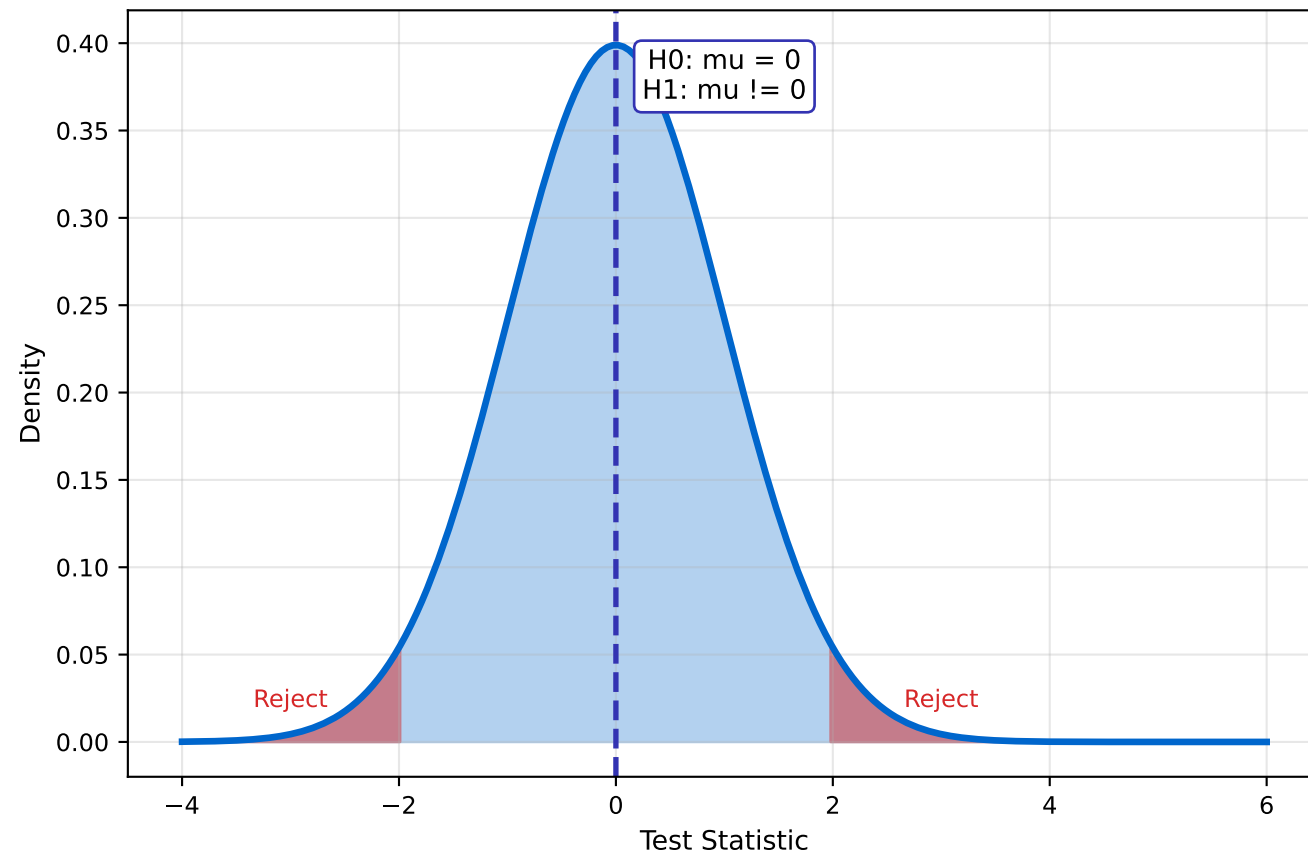
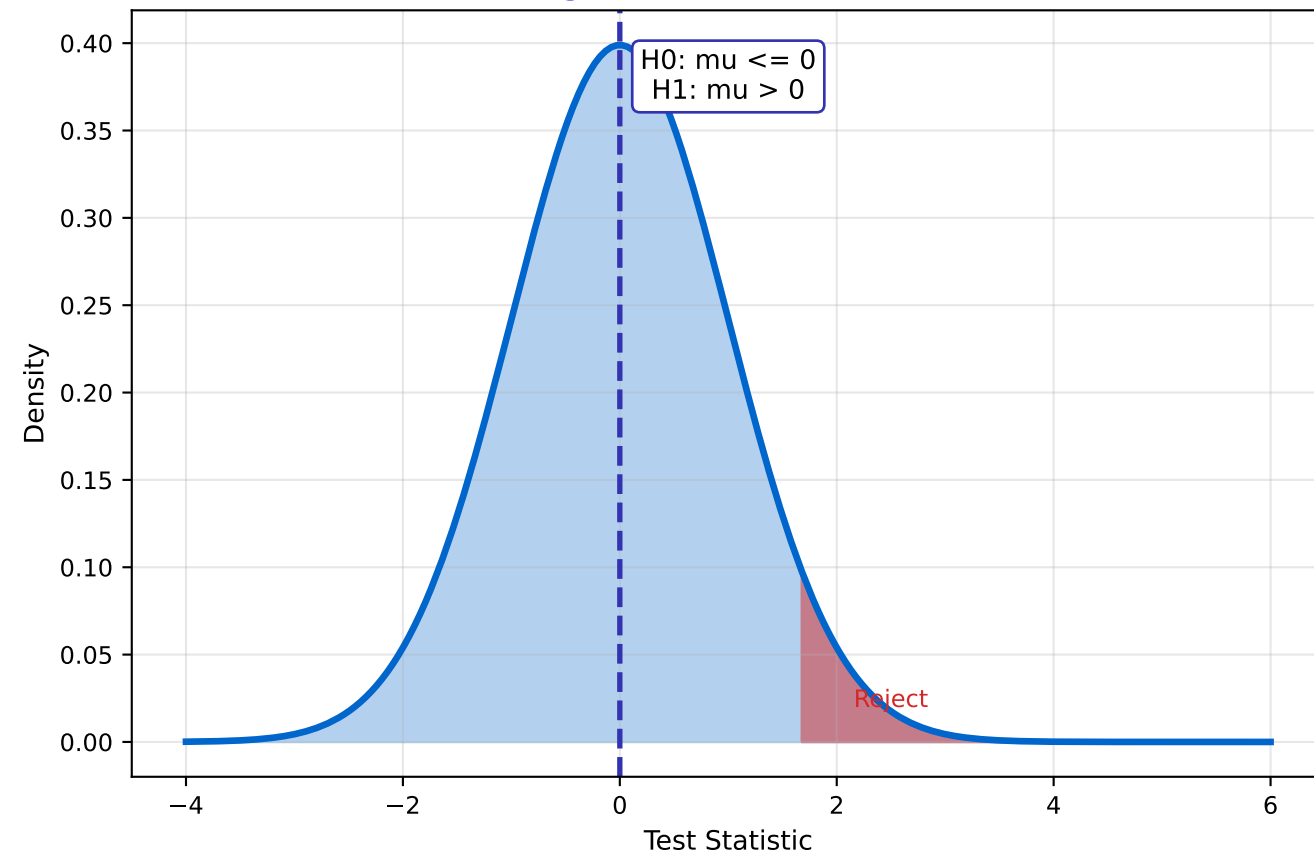


Null and Alternative Hypotheses

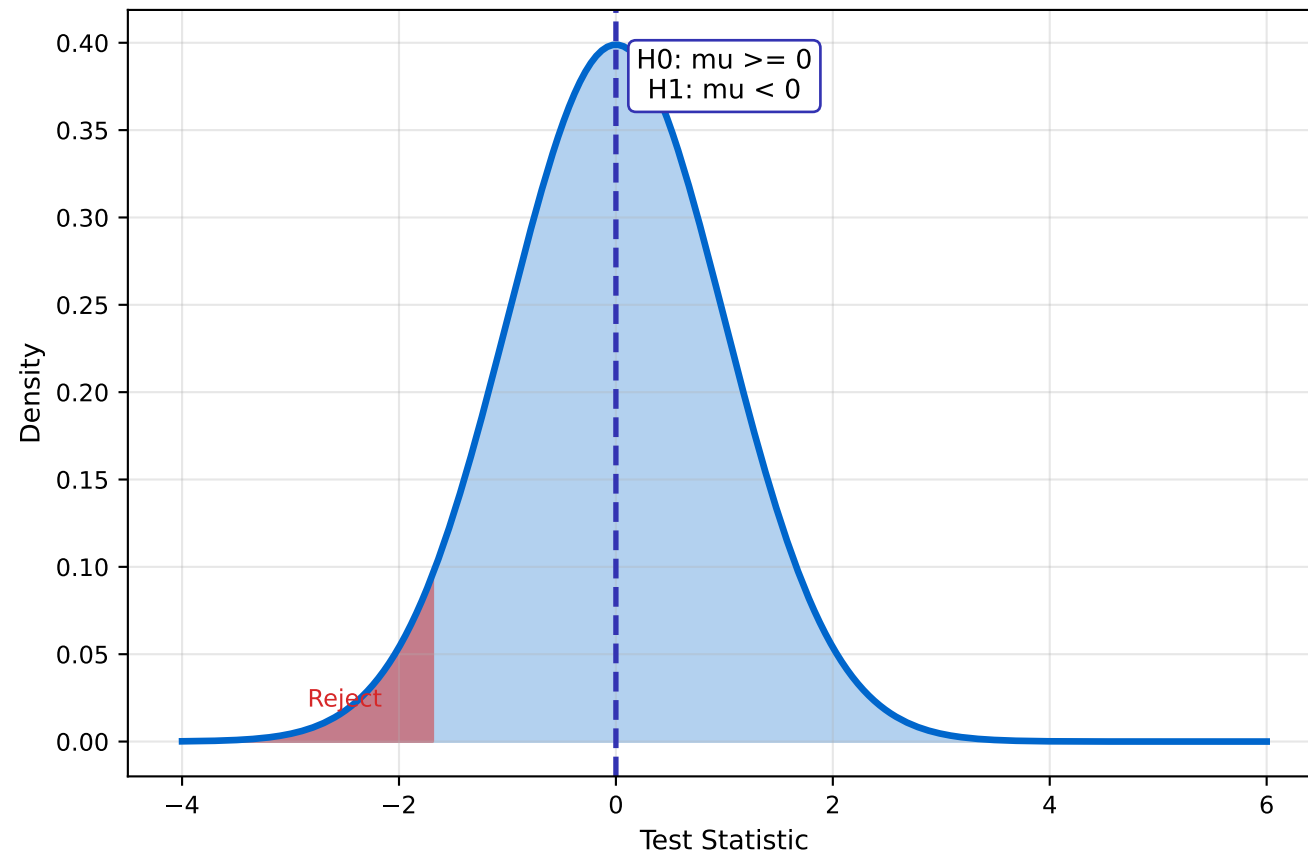
Two-Tailed: $H_1: \mu \neq 0$



Right-Tailed: $H_1: \mu > 0$



Left-Tailed: $H_1: \mu < 0$



Finance Hypothesis Examples

Strategy alpha:

$H_0: \alpha = 0$ (no excess return)
 $H_1: \alpha > 0$ (positive alpha)

Right-tailed

Market efficiency:

H_0 : returns are random
 H_1 : returns are predictable

Two-tailed

Risk reduction:

H_0 : volatility unchanged
 H_1 : volatility decreased

Left-tailed

Correlation change:

$H_0: \rho_1 = \rho_2$
 $H_1: \rho_1 \neq \rho_2$

Two-tailed

Choose test direction based on what you want to prove!