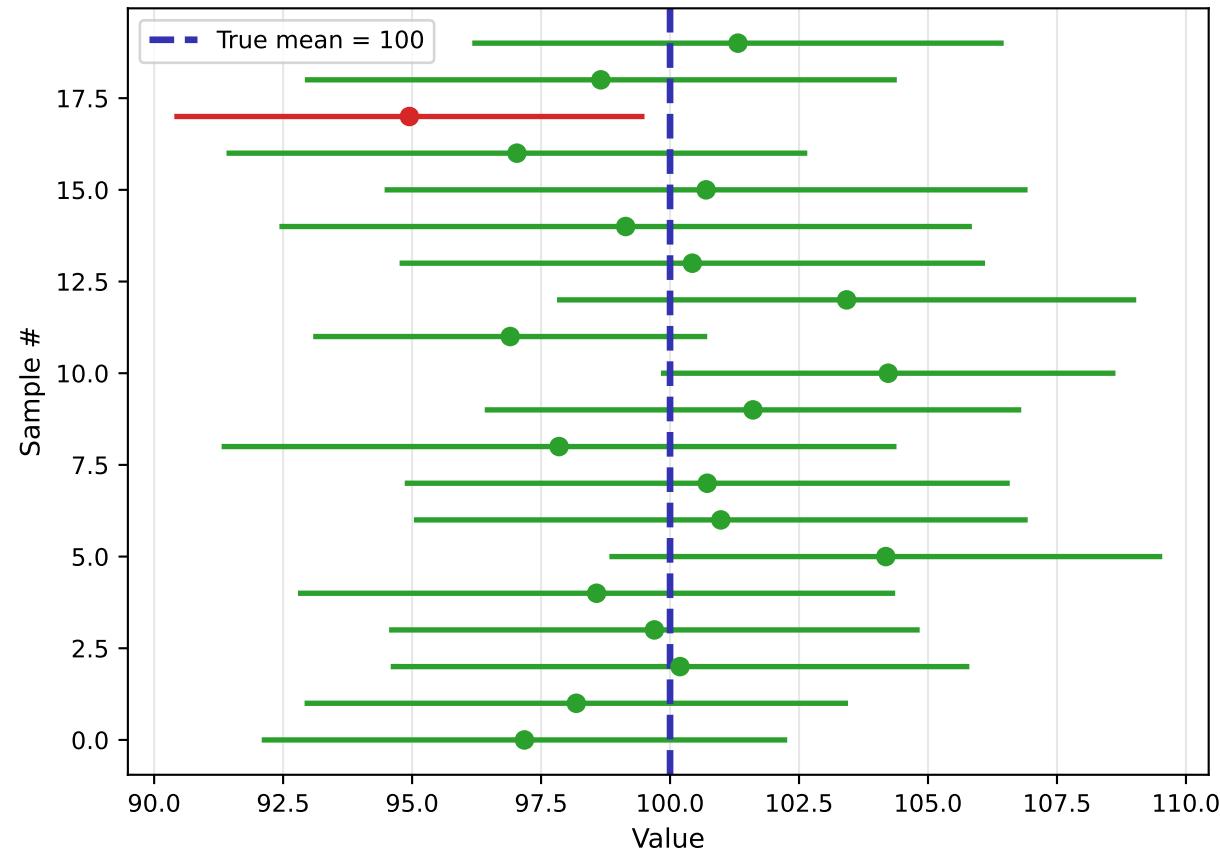
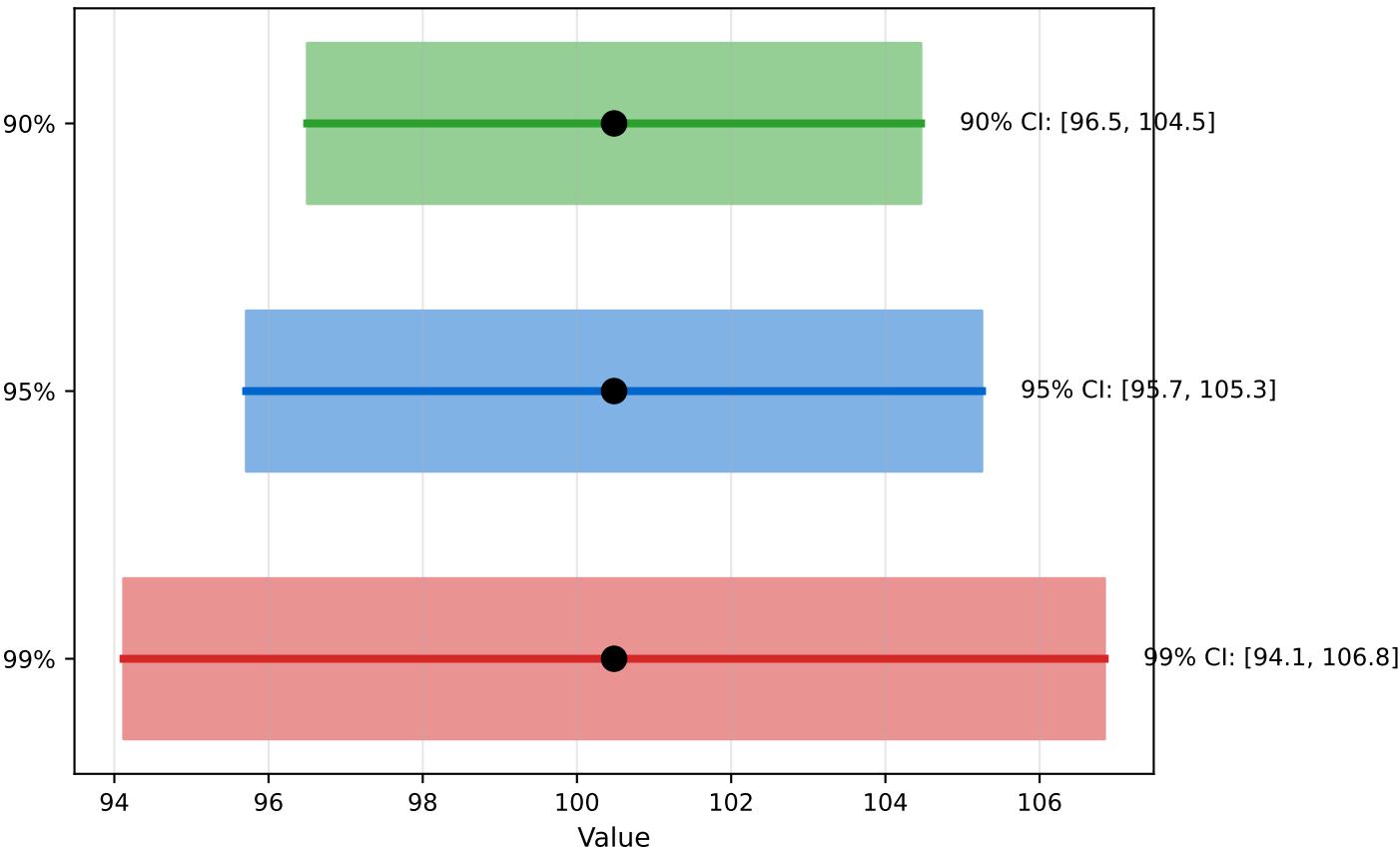


Confidence Intervals

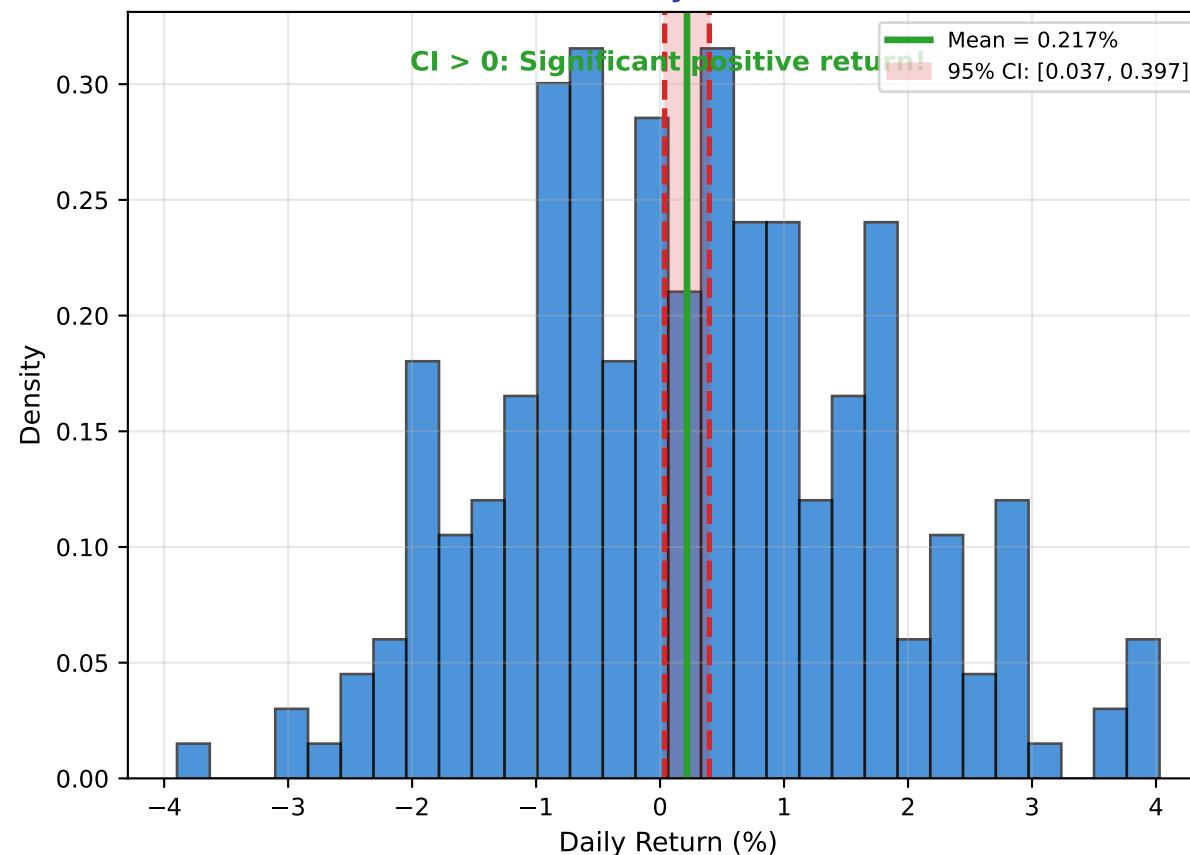
95% CIs: 19/20 contain true mean



Wider CI = Higher Confidence



95% CI for Daily Return Mean



Confidence Interval Formula

```
CI = sample_mean +/- t_critical * (std / sqrt(n))
```

95% CI means:

If we repeated sampling 100 times,
~95 of the CIs would contain the true mean

CI width depends on:

1. Confidence level (higher = wider)
2. Sample size (larger = narrower)
3. Variability (higher = wider)

CI vs p-value:

If 95% CI excludes H0 value,
then p-value < 0.05