Effect of a constant annual fee

Return comparisons | Original synthetic example | Edition 2026-11-26

Under a stated simplified convention, a proportional fee charged after each year's gross growth compounds through the remaining balance. The timing convention affects the exact arithmetic.

FORMULA End value = start x ((1 + gross return) x (1 - fee))^years

SCENARIO 01: Start 10,000; gross return 2% annually; ten end-year fees



WORKED EXAMPLE

With a 0.5% fee after each year, ending value is 11,594. The return and fee timing are fixed assumptions.

COMMON MISTAKE

Subtracting a one-time fee when the charge repeats every year understates cumulative impact.

BEFORE YOU USE THE CALCULATION

1. Specify fee timing.
2. Use the annual proportional rate.
3. Keep other charges and taxes separate.

COMPARE TWO MORE INPUT SETS

Scenario 05: Start 10,000; gross return 4% annually; ten end-year fees. With a 0.5% fee after each year, ending value is 14,079. The return and fee timing are fixed assumptions.

Scenario 10: Start 10,000; gross return 6.5% annually; ten end-year fees. With a 0.5% fee after each year, ending value is 17,854. The return and fee timing are fixed assumptions.

Synthetic values are not historical market data. Educational material; trading can result in substantial losses.