

EXAMPLES TO BETTER UNDERSTAND THE IMPACTS OF DEPOSITS AND WITHDRAWALS

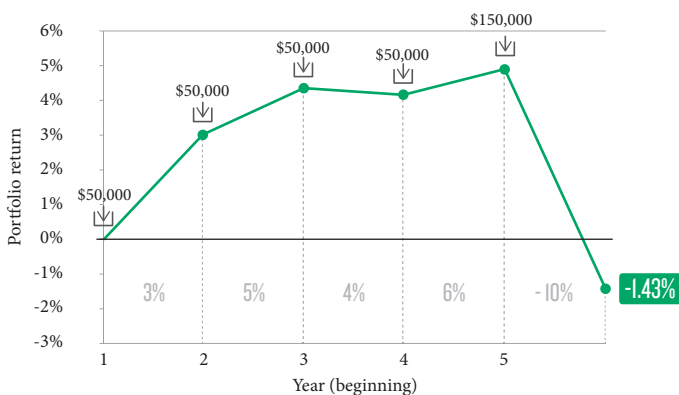
Four years in a row, an investor deposits \$50,000 at the start of the year.

SITUATION 1

- At the start of the fifth year, the investor deposits \$150,000.
- Their portfolio value goes down 10% during the fifth year.

The table below summarizes the investor's situation:

DATE	RETURN	DEPOSIT	MARKET VALUE AT YEAR-END	GAIN/LOSS
Year 1	3.0%	\$50,000	\$51,500	\$1,500
Year 2	5.0%	\$50,000	\$106,575	\$5,075
Year 3	4.0%	\$50,000	\$162,838	\$6,263
Year 4	6.0%	\$50,000	\$225,608.28	\$12,770.28
Year 5	-10.0%	\$150,000	\$338,047.45	-\$37,560.83



LEGEND

↓ DÉPÔT ↑ RETRAITEMENT —●— TAUX DE RETOUR PERSONNEL

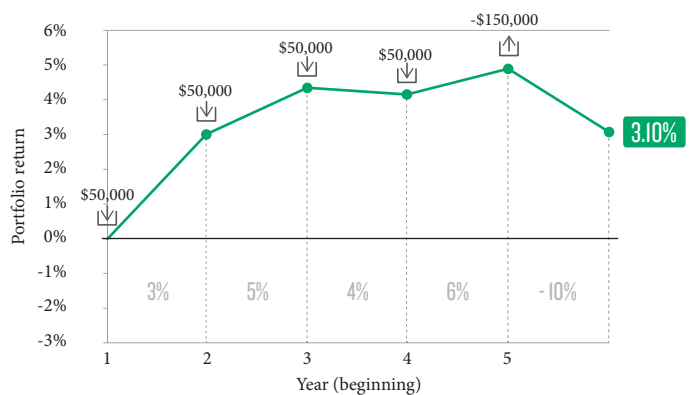
The deposit made at the beginning of the fifth year significantly increases the assets in the account before the 10% drop in return. Because a larger amount of capital is affected, the positive returns from the four previous years are cancelled out. In this example, the personal rate of return is -1.43%.

SITUATION 2

- At the start of the fifth year, the investor withdraws \$150,000.
- Their portfolio value goes down 10% during the fifth year.

The table below summarizes the investor's situation:

DATE	RETURN	DEPOSIT	MARKET VALUE AT YEAR-END	GAIN/LOSS
Year 1	3.0%	\$50,000	\$51,500	\$1,500
Year 2	5.0%	\$50,000	\$106,575	\$5,075
Year 3	4.0%	\$50,000	\$162,838	\$6,263
Year 4	6.0%	\$50,000	\$225,608.28	\$12,770.28
Year 5	-10.0%	-\$150,000	\$68,047.45	-\$7,560.83



Because the investor withdrew a large amount from their portfolio just before the drop in return in the fifth year, the overall impact of the drop was minimized (in contrast to situation 1). That's why the personal rate of return is higher in this situation (3.10%) than in the first one (-1.43%).

Calculation for Rate of Return

$$0 = \text{Initial Cashflow} + \frac{\text{Cashflow}_1}{(1+\text{rate})^1} + \frac{\text{Cashflow}_2}{(1+\text{rate})^2} + \dots + \frac{\text{Cashflow}_n}{(1+\text{rate})^n}$$

It is necessary to find out what rate of return once used in the formula will make it possible to obtain a result equal to 0.

Since the calculations are complex, you will need a program or an application to calculate the rate of return. For this purpose, we calculated directly for you the rate of return, which when entered in the formula, gives a result equal to 0.

In conclusion, in both situations, the performance of the portfolio is exactly the same over the 5 years, i.e. 3%, 5%, 4%, 6% and -10%. However, the 5-year personal rate of return is different. This variation is explained by the presence of monetary cashflows which differs according to the two situations. In fact, a large deposit of \$ 150,000 in situation 1 had the effect of accentuating the 10% decline in portfolio yield in year 5. In situation 2, a withdrawal of \$ 150,000 decreased the effect of the bear market in year 5.