

Mini case study

Choosing Between Money Today and Money Tomorrow

Rohan is a 20-year-old undergraduate student in India. He receives an internship stipend offer with two payout options:

Option A: ₹50,000 paid today

Option B: ₹55,000 paid after one year

Inflation is expected to be 6% per year. Rohan can invest money at 8% annual return in a safe instrument.

He wants to make a rational financial decision using the Time Value of Money concept.

Step 1: Understanding the problem

Although Option B offers more money numerically, money received in the future has lower value due to:

Inflation reducing purchasing power

Lost opportunity to earn returns during the year

So the correct comparison is between:

₹50,000 today

Present value of ₹55,000 received after one year

Step 2: Present Value calculation

Formula:

$$PV = FV / (1 + r)$$

Where:

$$FV = ₹55,000, r = 8\% = 0.08, n = 1 \text{ year}$$

$$PV \approx ₹50,926$$

Step 3: Decision

Value of Option A today: ₹50,000

Value of Option B in today's terms: ₹50,926

Option B is financially better, but only by ₹926.

Step 4: Role of inflation

If inflation is 6%, the real return is lower.

$$\text{Real return} \approx 8\% - 6\% = 2\%$$

Recalculating PV using real return:

$$PV = 55,000 / (1.02) \approx ₹53,922$$

In real purchasing power terms, Option B becomes clearly superior.