

An aerial view of the New York City skyline at sunset. The sun is low on the horizon, casting a warm, golden glow over the city. The Hudson River is visible on the right, with the Manhattan Bridge and the New York Thruway Bridge in the distance. The Chrysler Building is a prominent landmark in the center. The MetLife building is visible on the left. The text "Finance 101: Calculating Present and Future Value of Cash Flows" is overlaid in white on a dark blue background.

# Finance 101: Calculating Present and Future Value of Cash Flows

Money today is *more valuable* than money tomorrow

*Scenario I:*



**= 210**

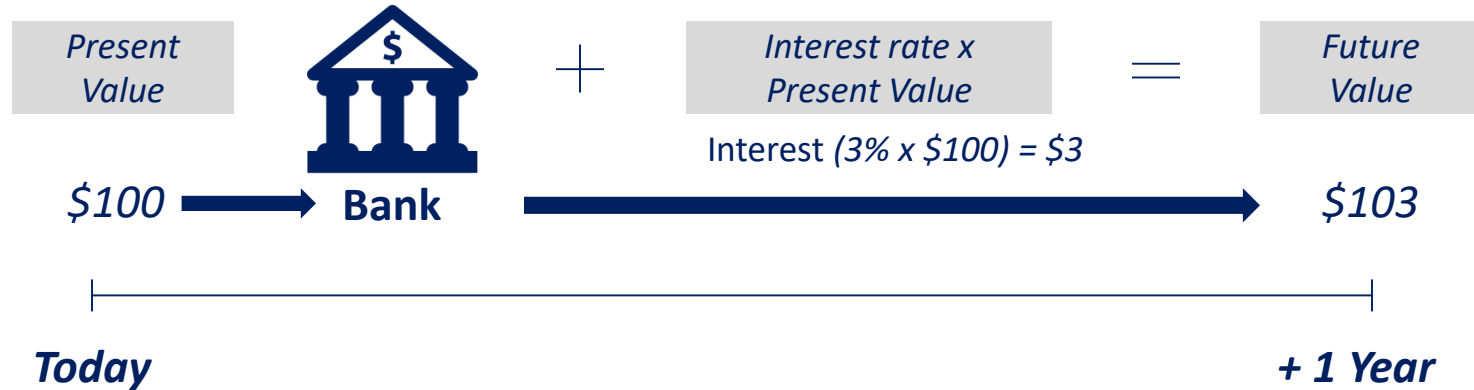
~~**Better option**~~

**We have to consider  
the Time Value of money**

*Scenario II:*



**= 200**




$$\text{Future Value} = \text{Present Value} \times (1 + i)$$

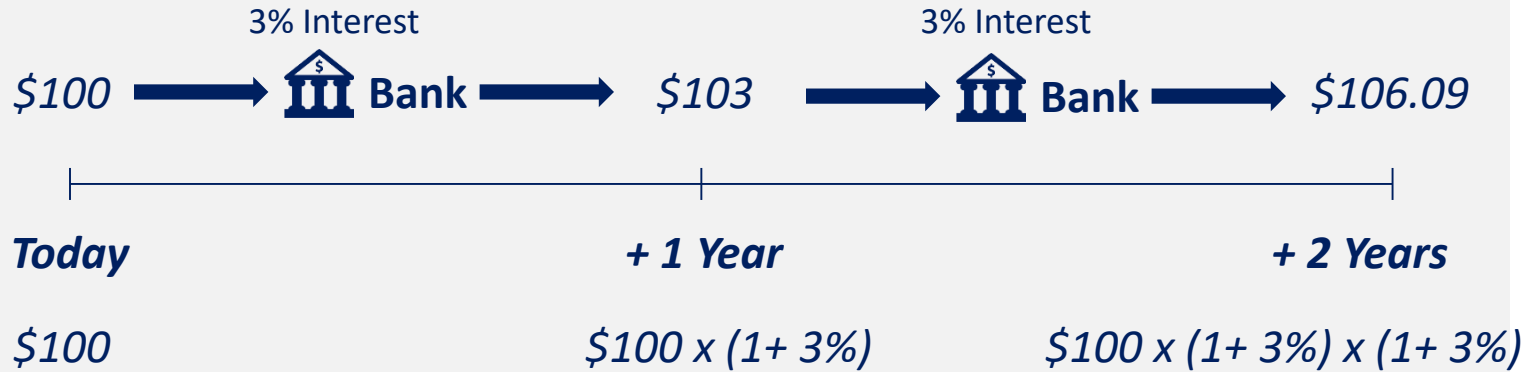
$$\text{Future Value} = 100 \times (1 + 3\%) = \$103$$

How do we find the Present Value of a Future Cash Flow?

$$\text{Future Value} = \text{Present Value} \times (1 + i) \quad \left| \text{Divide by } (1 + i) \right.$$

$$\frac{\text{Future Value}}{(1+i)} = \frac{\text{Present Value} \times \cancel{(1+i)}}{\cancel{(1+i)}}$$


$$\frac{\text{Future Value}}{(1+i)} = \text{Present Value}$$



$$\text{Present Value} = \frac{\text{Future cash flow "n" years from now}}{(1 + i\%)^n}$$