

An aerial photograph of the New York City skyline at sunset. The image shows a dense cluster of skyscrapers, including the Chrysler Building and the MetLife building. The Hudson River is visible on the right, and the East River is on the left. The sun is low on the horizon, casting a warm, golden glow over the city. The text "Calculating Present and Future Value of Cash Flows" is overlaid in white, bold, sans-serif font across the middle of the image.

# Calculating Present and Future Value of Cash Flows

365



Money today is ***more valuable*** than money tomorrow

*Scenario I:*



**= 210**

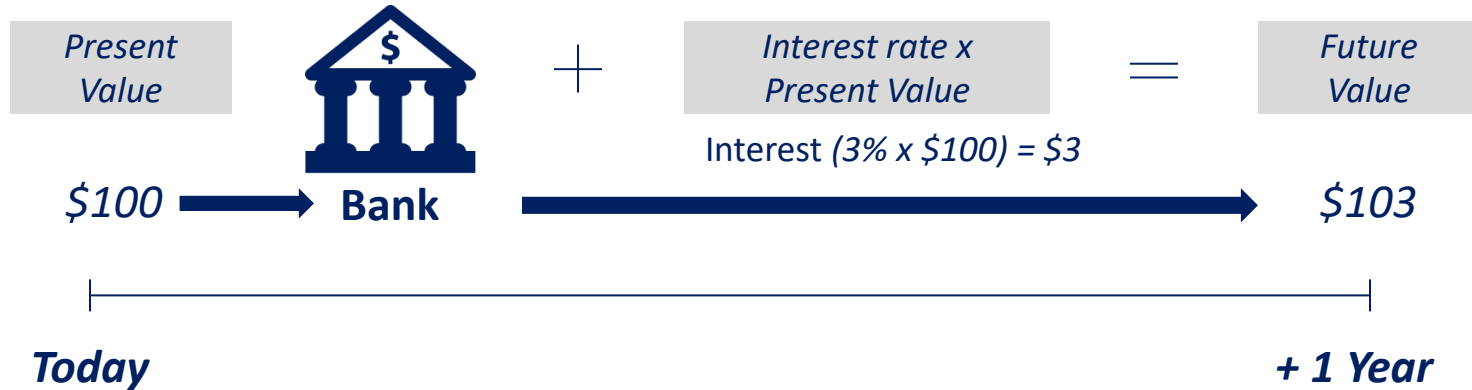
~~**Better option**~~

*Scenario II:*



**= 200**

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



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

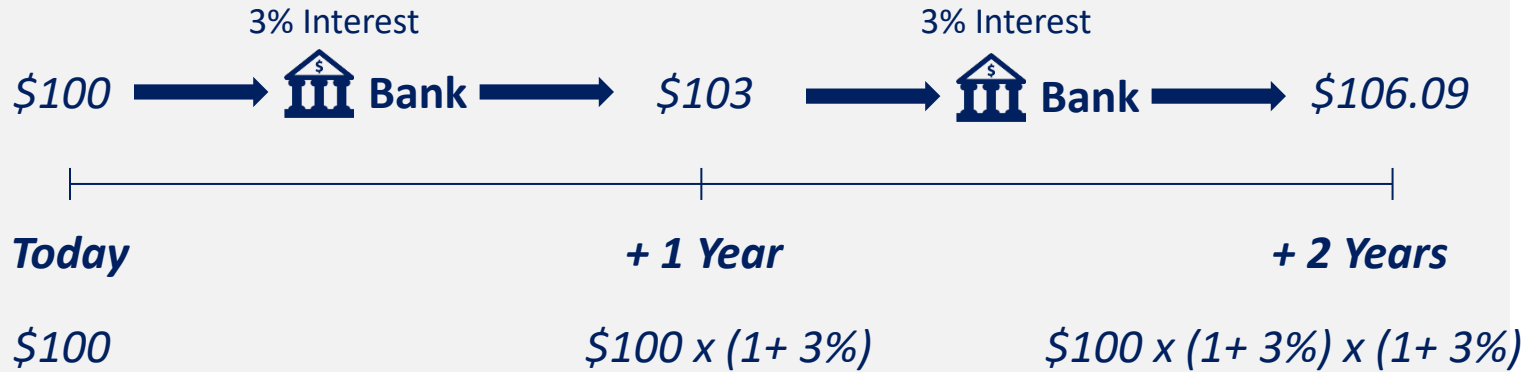
$$\text{Future Value} = 100 \times (1 + 3\%) = \$103$$

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

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

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

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



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