

# Finance (Basic)

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# Time Value of Money

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Why is a dollar tomorrow less worth than a dollar today?

- Opportunity costs
- Purchasing power of money

# Future Value

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Is a value of an asset in a specific day in the future.

# Present Value

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$$PV = df \times CF$$

# Discount Factor

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DF is the value today of \$1 received in the future.

# Net Present Value

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$NPV = PV - PV \text{ of Required investment}$

# Cumulative Net Present Value

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$$\text{NPV} = \sum_{t=1}^T \frac{CF_t}{(1+i)^t} - CF_0$$

*Note: mostly < 0, investment.*

# Present Value of Perpetuity

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$$PVoP = \frac{CF}{i}$$



# Risk and Present Value

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A safe dollar is worth more than a risky one.

Thank you for your attention

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