The Time Value of Money

Concept Summary

	Time Value of Money
One-Liner	*"A dollar today is worth more than the same dollar tomorrow"*
Explanation	▪ Investors prefer to receive a dollar today (vs. the same amount in the future), as the money has potential to earn a % return ▪ Money has an 'earning capacity'
Key Applications	▪ The Concept of Discount Rates ▪ Net Present Value (NPV) Analysis ▪ DCF Valuation Models

Example

> You can choose between receiving $100 today or $102 in 1 year's time

> The current interest rate is 3% per year

Receive $100 Today
Today's value = $100
= $100 ✓

Receive $102 in 1 Year
Today's value = $102 / 1.03
= $99.03

The Discount Rate

> We touched on the concept of a 3% interest rate on the previous slide
> This is an example of a Discount Rate – i.e. **the rate** at which **cash flows** are **discounted back** to **today**
> Represent the **required rate of** return for an investment (in line with its risk level)
> Valuations use the **Weighted Average Cost of Capital (WACC)** – accounts for **debt and equity funding**

Key Uses

Time Value of Money
- Accounts for the earning potential of today's dollar

Risk Assessment
- Riskier opportunities have higher required rates of return

Opportunity Cost
- Evaluating decisions versus a benchmark rate of return

Hurdle Rate
- Evaluating decisions versus a minimum rate of return

Example