

*It is important to understand the difference between NPV and IRR

- *NPV is the value today of a stream of cash flows in the future
- *The cash flows may be a mix of positive and negative cash flows
- *NPV is most frequently used in valuation of assets, bonds or businesses

- *IRR is the hurdle rate at which the Net Present Value of an investment is equal to zero.
- *This means that it is the rate of interest that matches the present value of the investment with the future cash flow from the investment
- *This is most frequently used in capital budgeting or when comparing the returns on different investment opportunities.

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*Their differences are just as imporant...

*The aggregate of all the present values of an asset form the Net Present Value and it is expressed in absolute \$ terms

- *The IRR is the rate of return at which the NPV = 0
- *The IRR is expressed in percentage terms

*The NPV helps us to identify the surplus \$ returns over and above the initial investment

- *The IRR represents the position of no profit and no loss
- *Therefore if an IRR is greater than the WACC, the investment returns are positive and the investment should be made
- *If the IRR is less than the cost of capital, the investment should not be made.

*When calculating the Net Present Value, we separately calculate the appropriate discount rate using the CAPM and WACC

- *When calculating the IRR, we fix the NPV to zero there is no profit or loss from the investment
- *From this we are able to derive the rate which fulfils this condition the internal rate of return (IRR)

