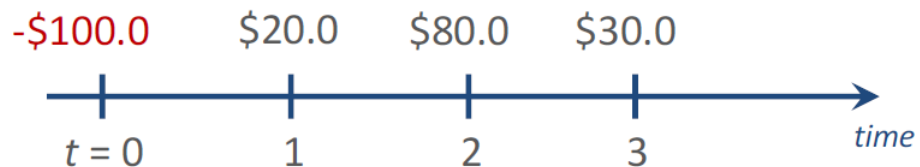


Valuing investment projects

- An investment project can be represented by its forecasted *expected* cash flows.
- A simple example:



- *Should this investment be undertaken?*

Valuing investment projects

- Assume that the appropriate discount rate for the future cash flows is 10%.

<i>Time</i>	<i>t = 0</i>	<i>1</i>	<i>2</i>	<i>3</i>
Future cash flows		20.0	80.0	30.0
PV at 10%		18.2	66.1	22.5
Sum on PVs	106.8			
Investment	-100.0			

- The NPV of this project is $106.8 - 100 = 6.8$.
- The project has positive NPV and creates value for shareholders.

IRR: a simple example



- Let r be a generic discount rate. The IRR solves the following equation:

$$-\$200 + \frac{\$100}{1+r} + \frac{\$100}{(1+r)^2} + \frac{\$100}{(1+r)^3} = 0$$

$$\text{IRR} = 23.37\%$$

- You can either use the function "RATE" or "IRR" to obtain the internal rate of return in this example.
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