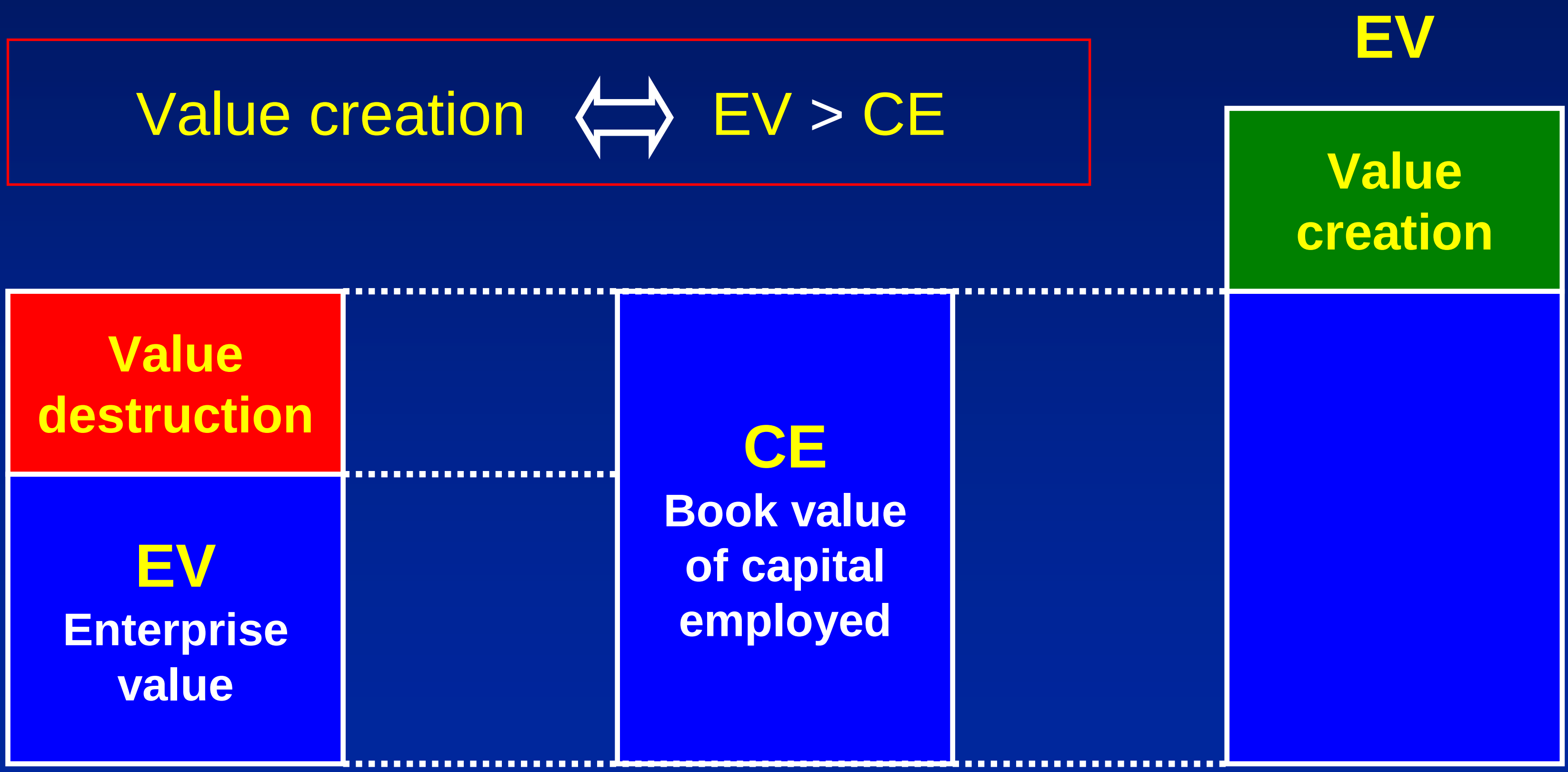
Value Creation

 2007

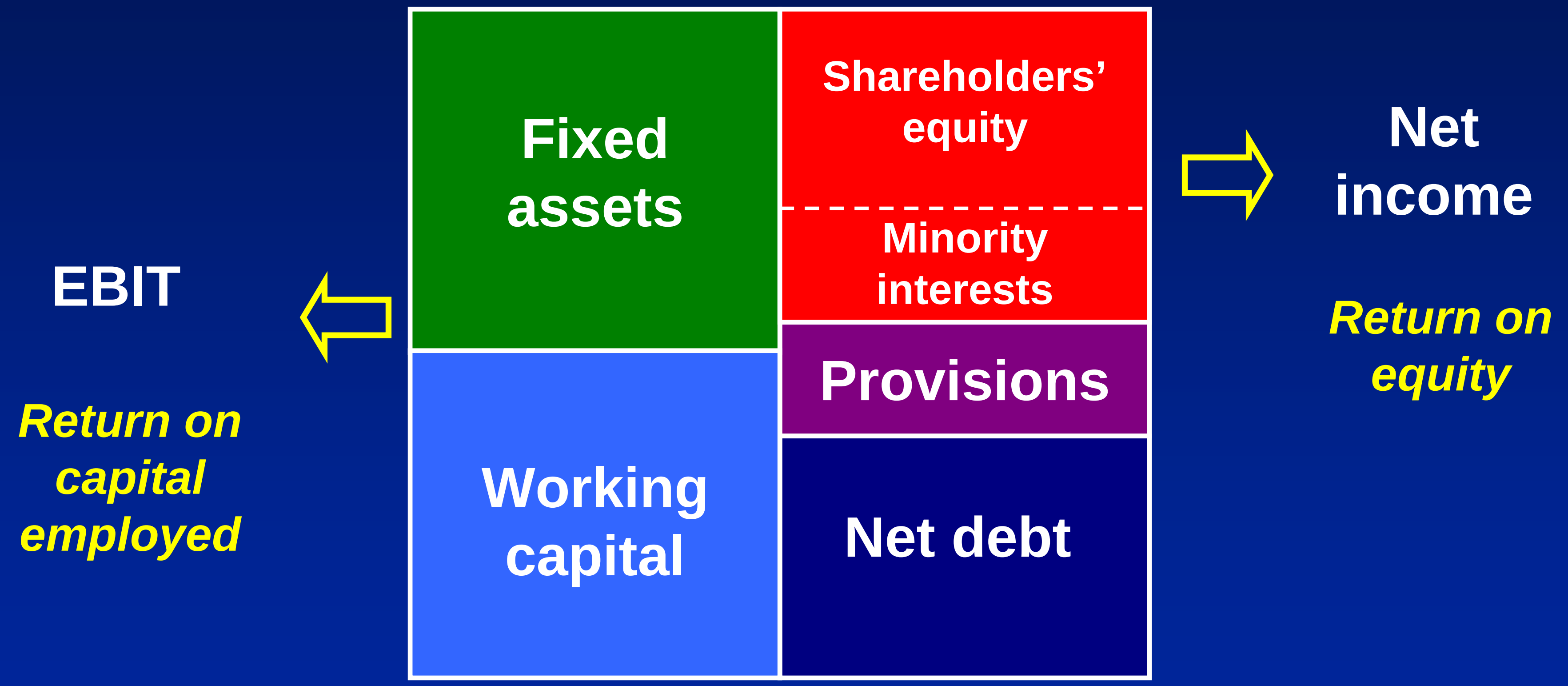
1. What is value creation?

- Value creation (or destruction) is defined as the difference between the **market value** of capital employed (Enterprise Value) and the **book value** of CE

Value creation ⇔ EV > CE



2. Return on Capital Employed and Return on Equity (1/3)



2. Return on Capital Employed and Return on Equity (2/3)

- Return On Capital Employed (ROCE)

$$\boxed{ROCE = \frac{EBIT\ (1\text{-}tax)}{CE}}$$

- Breakdown of ROCE

$$\boxed{ROCE = \frac{EBIT\ (1\text{-}tax)}{sales} \times \frac{sales}{CE}}$$

After-tax operating margin x **Capital employed turnover ratio**

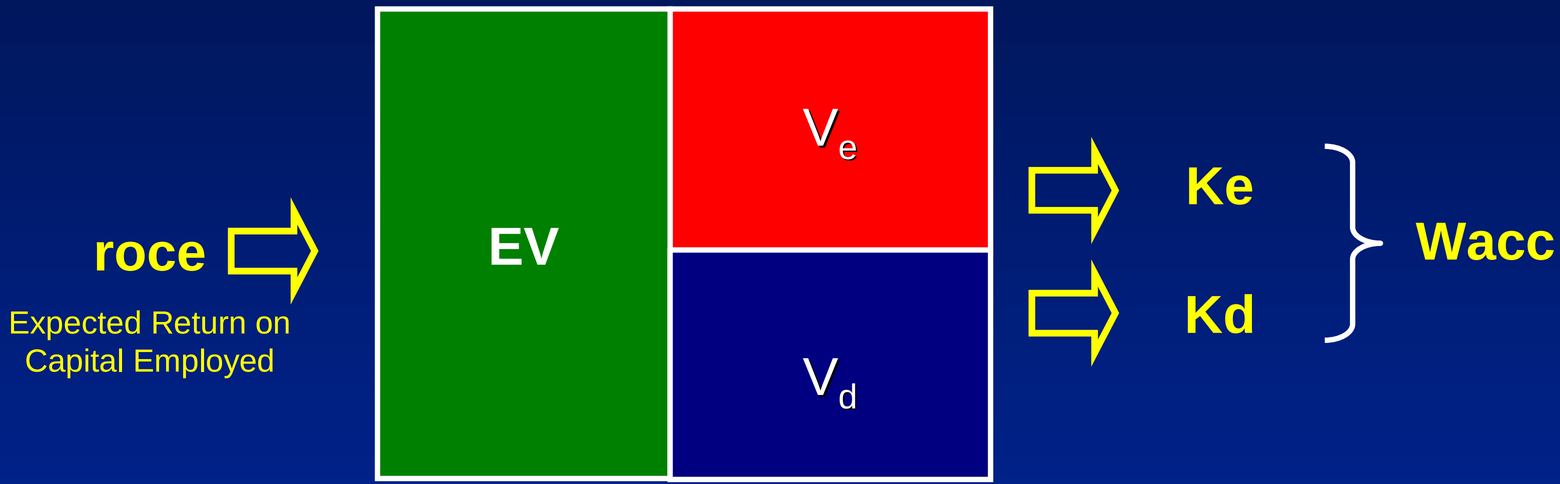
2. Return on Capital Employed and Return on Equity (3/3)

- **Book and expected returns** can be very different

	Capital Employed
Book Return	**ROCE** Return on Capital Employed
Expected Return	**roce** ***Expected*** return on capital employed

3. Weighted Average Cost of Capital

- **Spread** is the difference between the **return on capital employed** and the **weighted average cost of capital**

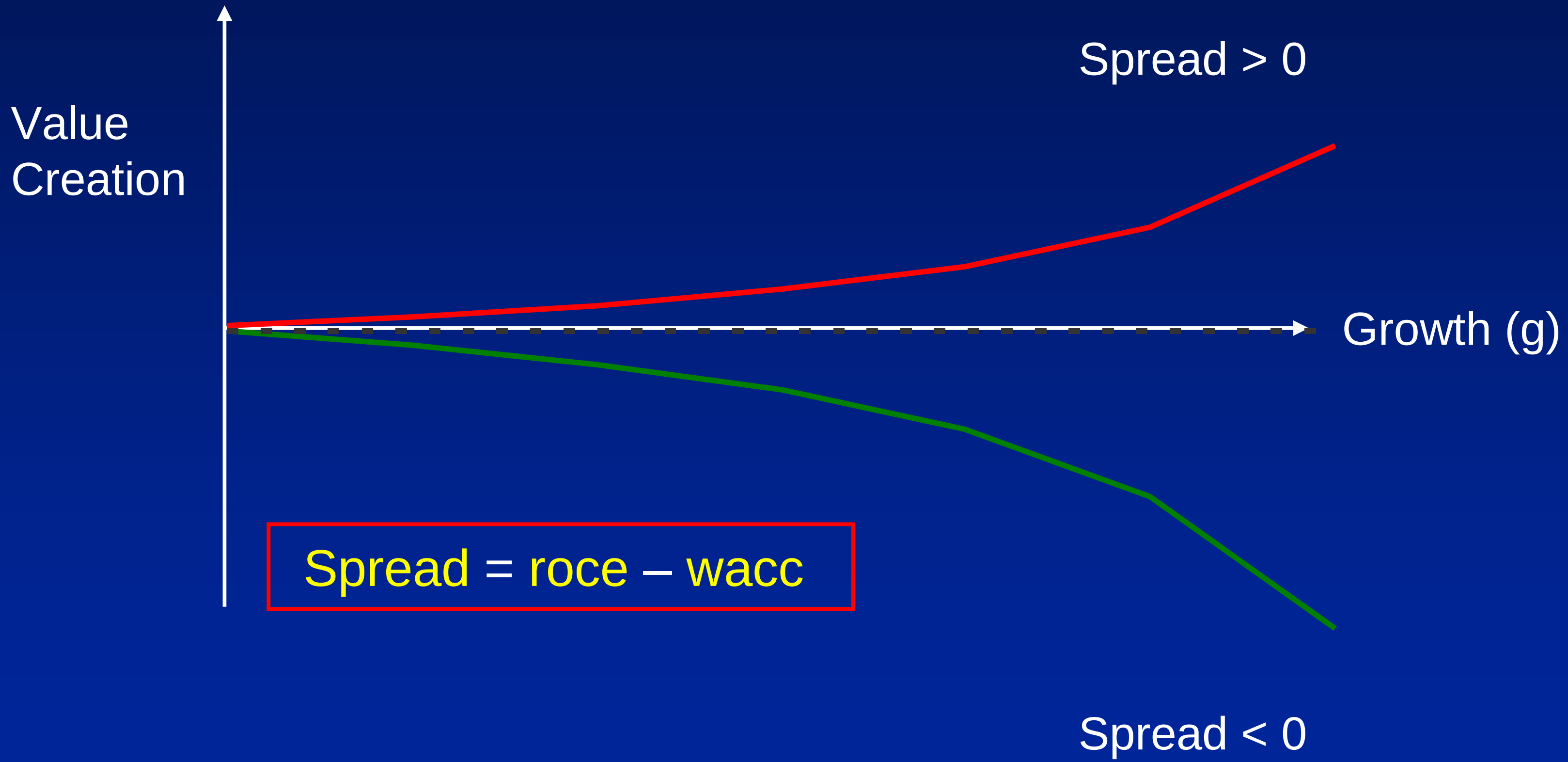


- Wacc is the average return expected by **both equity and debt investors,** considering the risk. Wacc preexists to the firm

$$Wacc = K_e \cdot \frac{V_e}{V_e + V_d} + K_d \cdot (1\text{-}tax) \cdot \frac{V_d}{V_e + V_d}$$

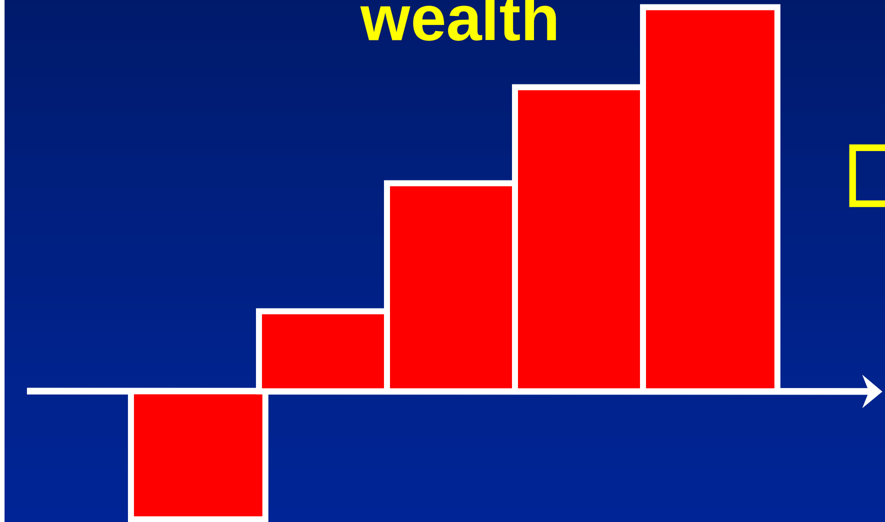
4. Rent and value creation

- Spread and growth are the **key value drivers**



5. Measuring Value Creation (1/4)

Intrinsic value/Shareholders wealth



Stock market value/Shareholders value

5. Measuring Value Creation (2/4)

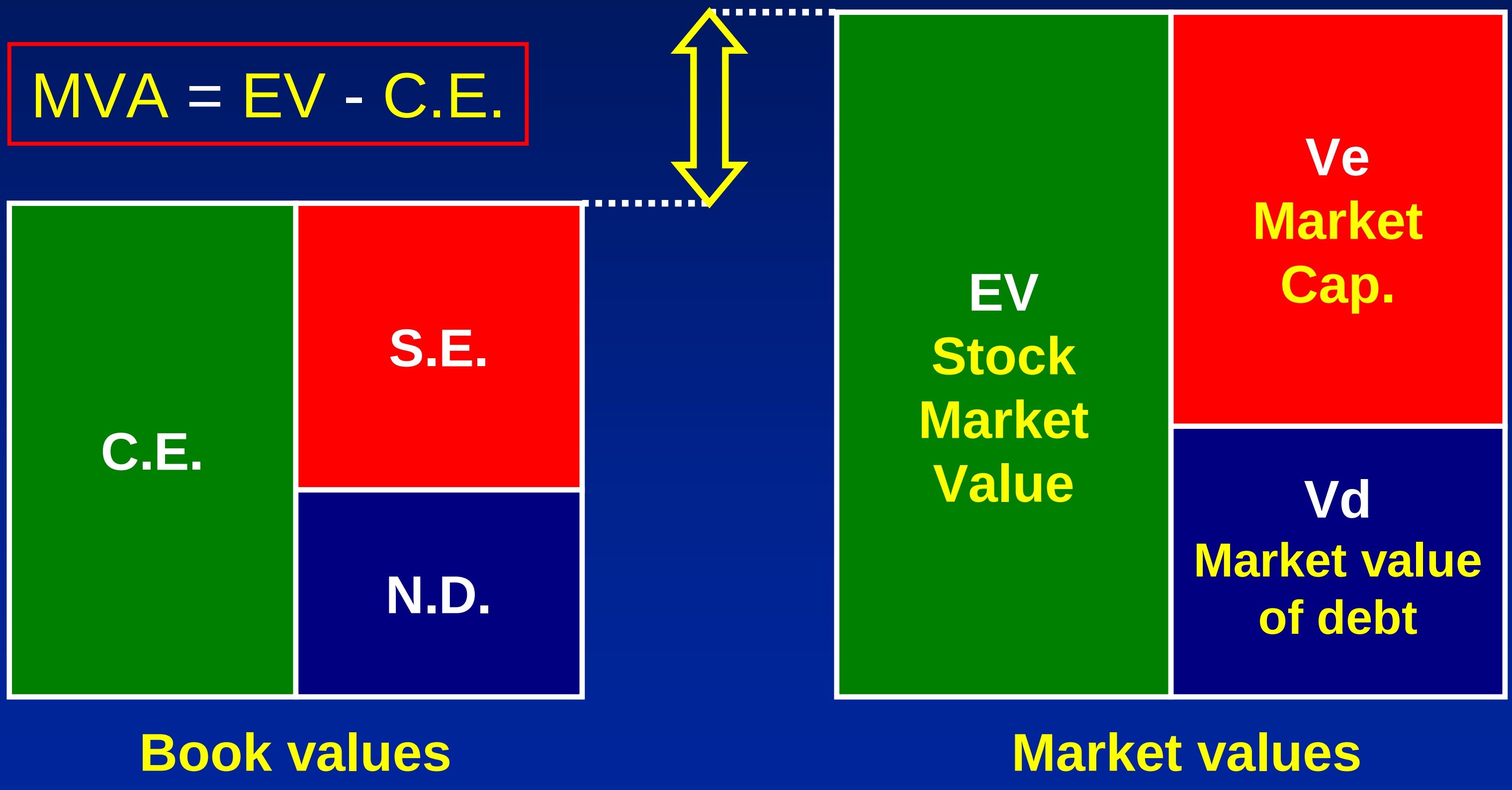
- **EVA®** is used to measure value creation **over a given period** in absolute terms
- EVA® is obtained by the following formula:

$$\boxed{\begin{aligned} \textbf{EVA}^{®} &= \text{C.E.} \times (\text{roce} - \text{Wacc}) \\ &= \text{EBIT} \times (1\text{-tax}) - \text{Wacc} \times \text{C.E.} \end{aligned}}$$

5. Measuring Value Creation (3/4)

- **Market Value Added** (MVA)

$$MVA = EV - C.E.$$



5. Measuring Value Creation (4/4)

- In theory… **there is a congruence between the two methods**

Discounted cumulated EVA® ≈ **MVA**