Investors and managers demonstrates risk aversion in different ways

People try to avoid risk

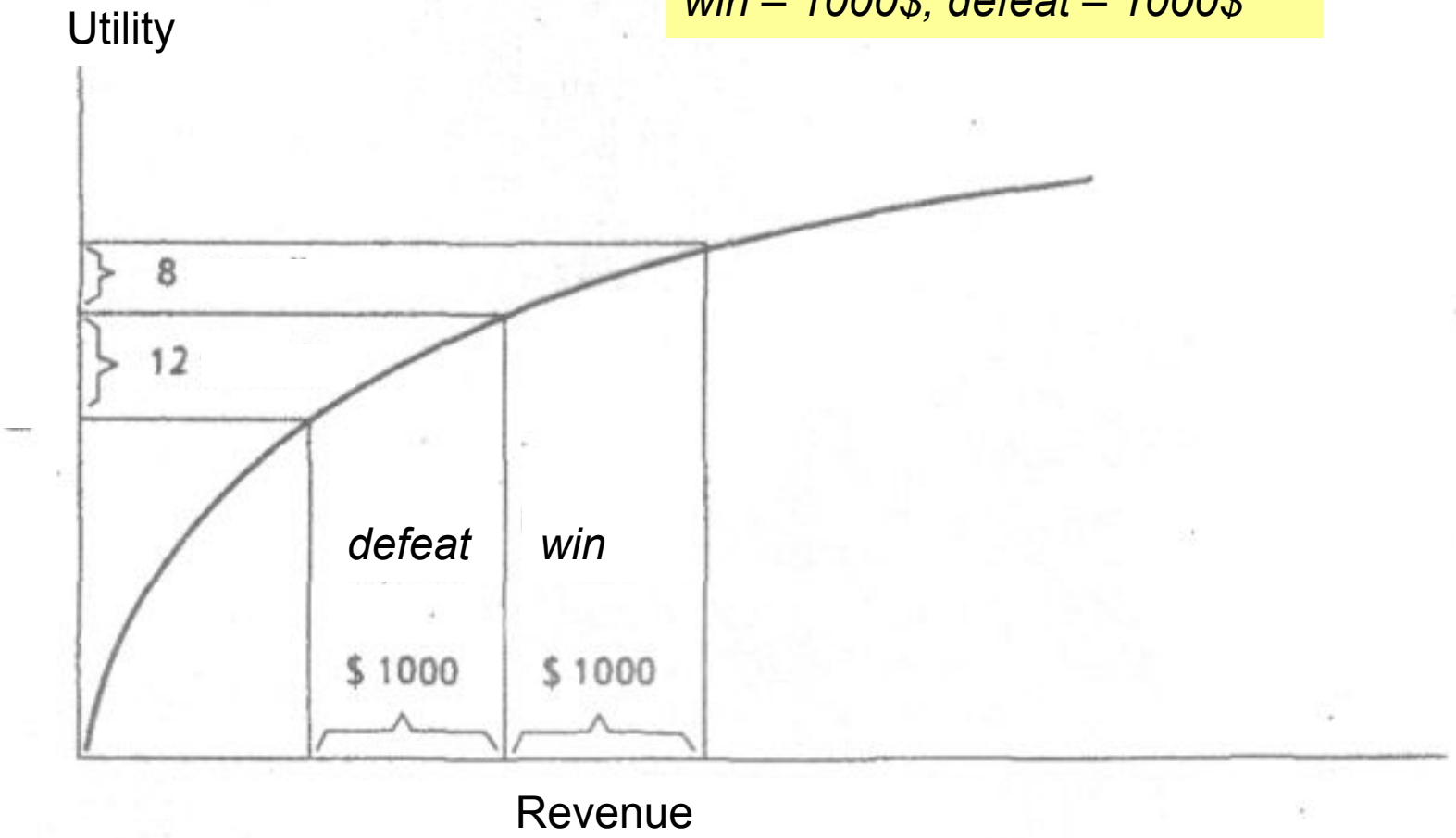
Why managers invest in risky projects?

RISK PREMIUM

I want to have a compensation not only for the use of my money, but for the risk to remain without them!

… a higher rate of profit, if there is a risk…

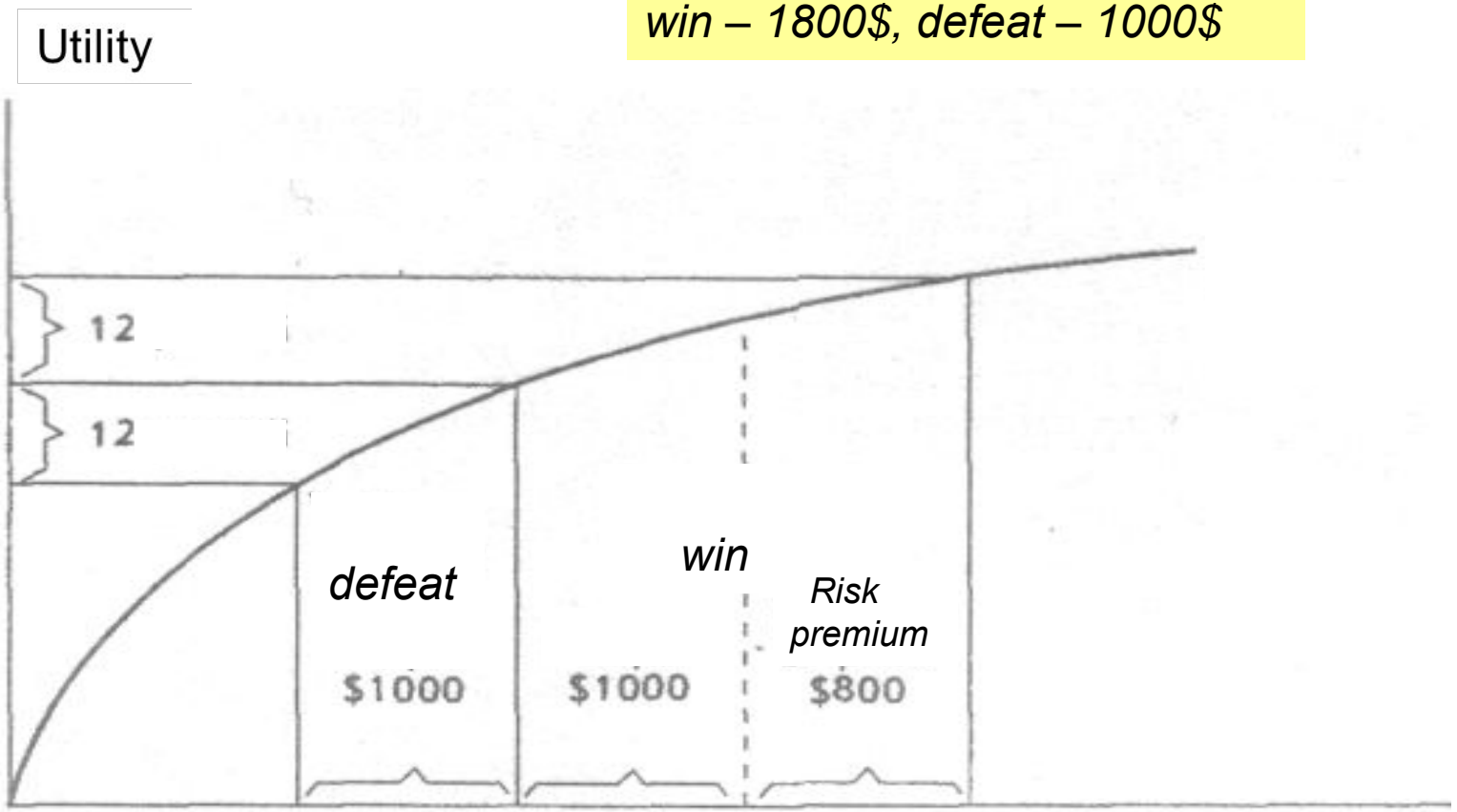
win – 1000$, defeat – 1000$



Negative expected value => investor will not bet

Utility of revenue

win – 1800$, defeat – 1000$



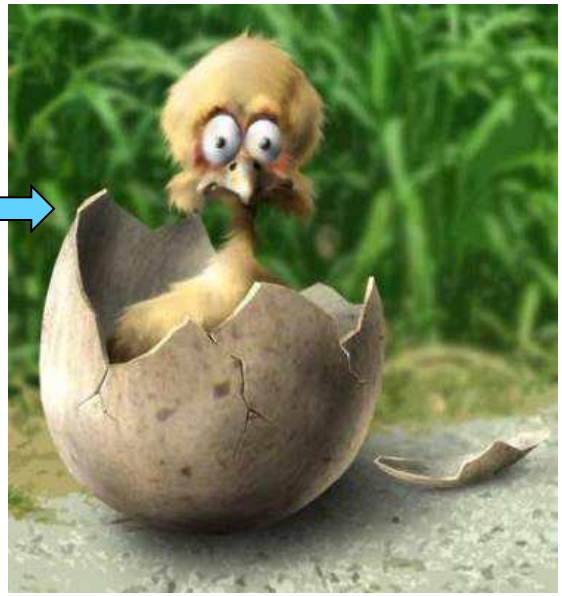
Utility of revenue

Business risk associated with a firm decision about investment

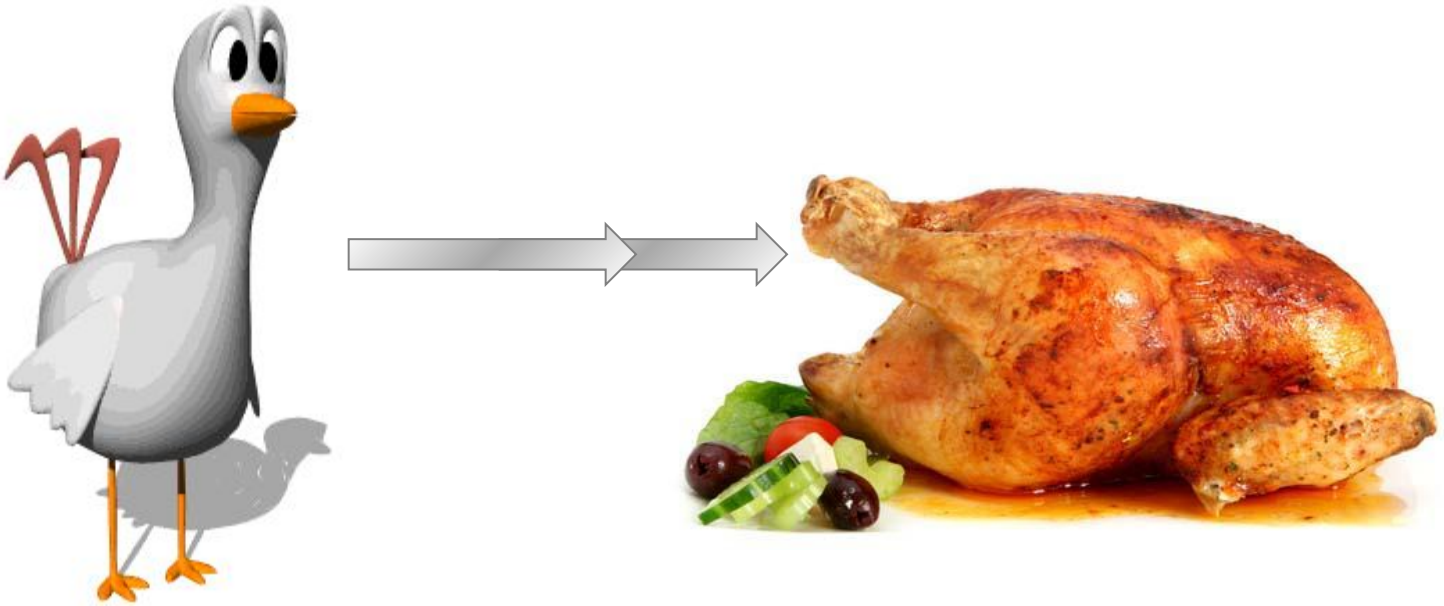
Business risk is always there - no business does not guarantee success

"We've considered every potential risk except the risks of avoiding all risks."

Within one business direction, the investor usually faced with higher business risk in the newly created company

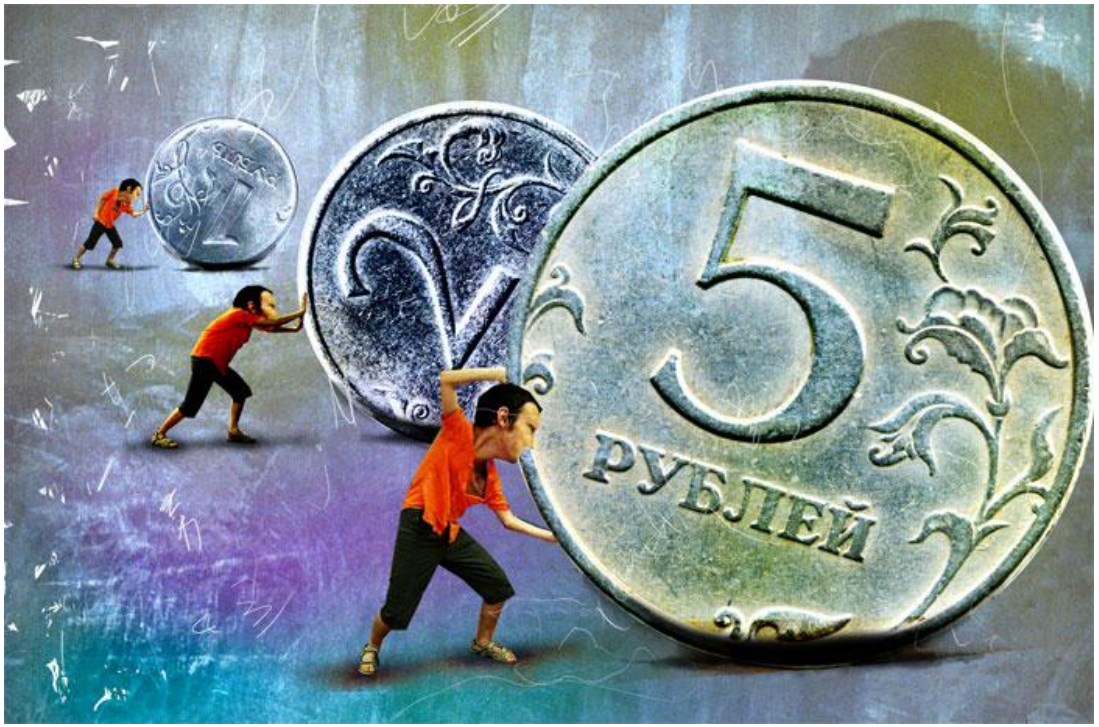


On the other hand, the "old" company, products or methods of entrepreneurship which are outdated, can have high enough degree of business risk

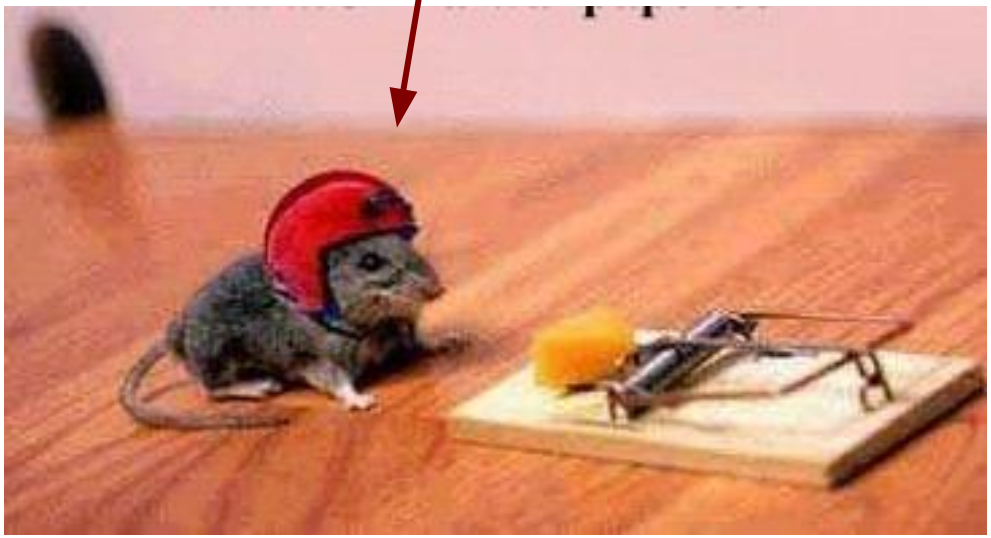


<u>Financial risk</u> is determined by the financial decisions of the firm (the risk of possible insolvency)

The income of the company must first of all go to debt service



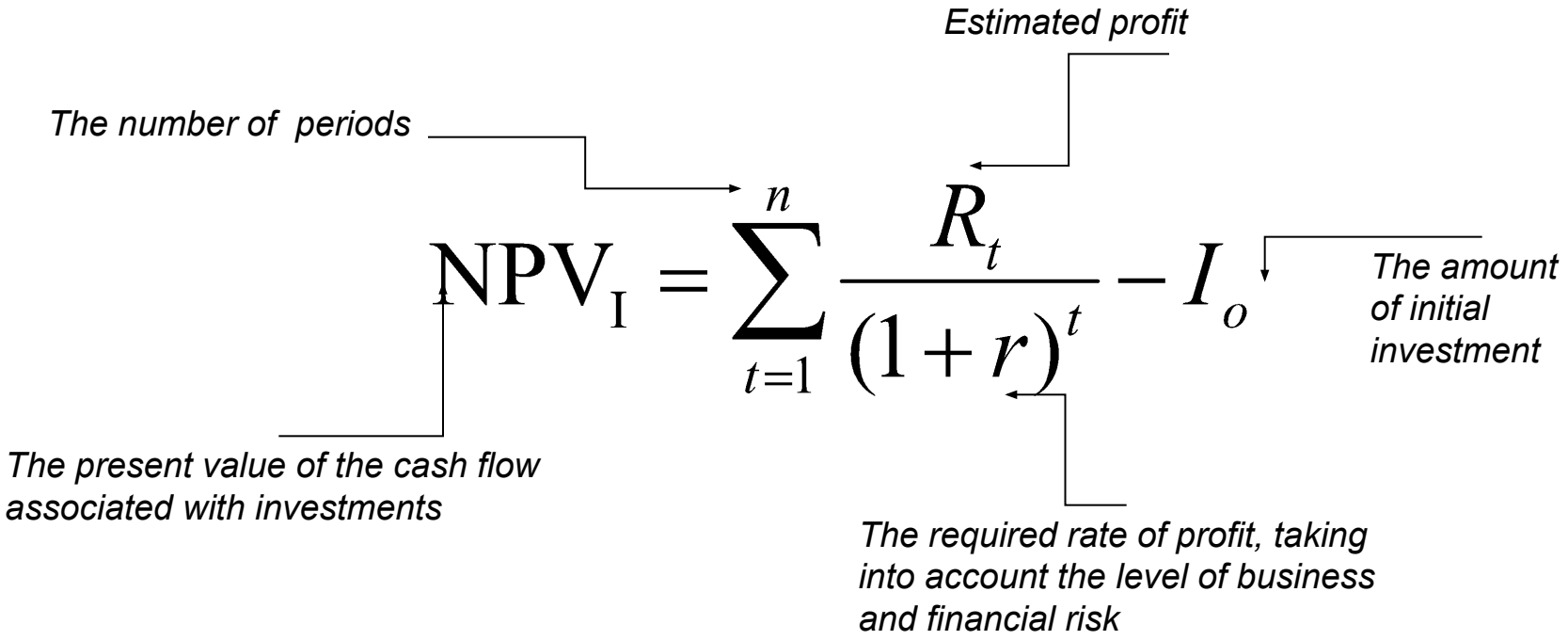
Adjustment of risk



Discounted value of future profit

Degree of risk

Valuation model:



Methods of risk account :

✔*The rate method, corrected for risk*

✔ *Method of certainty equivalent*

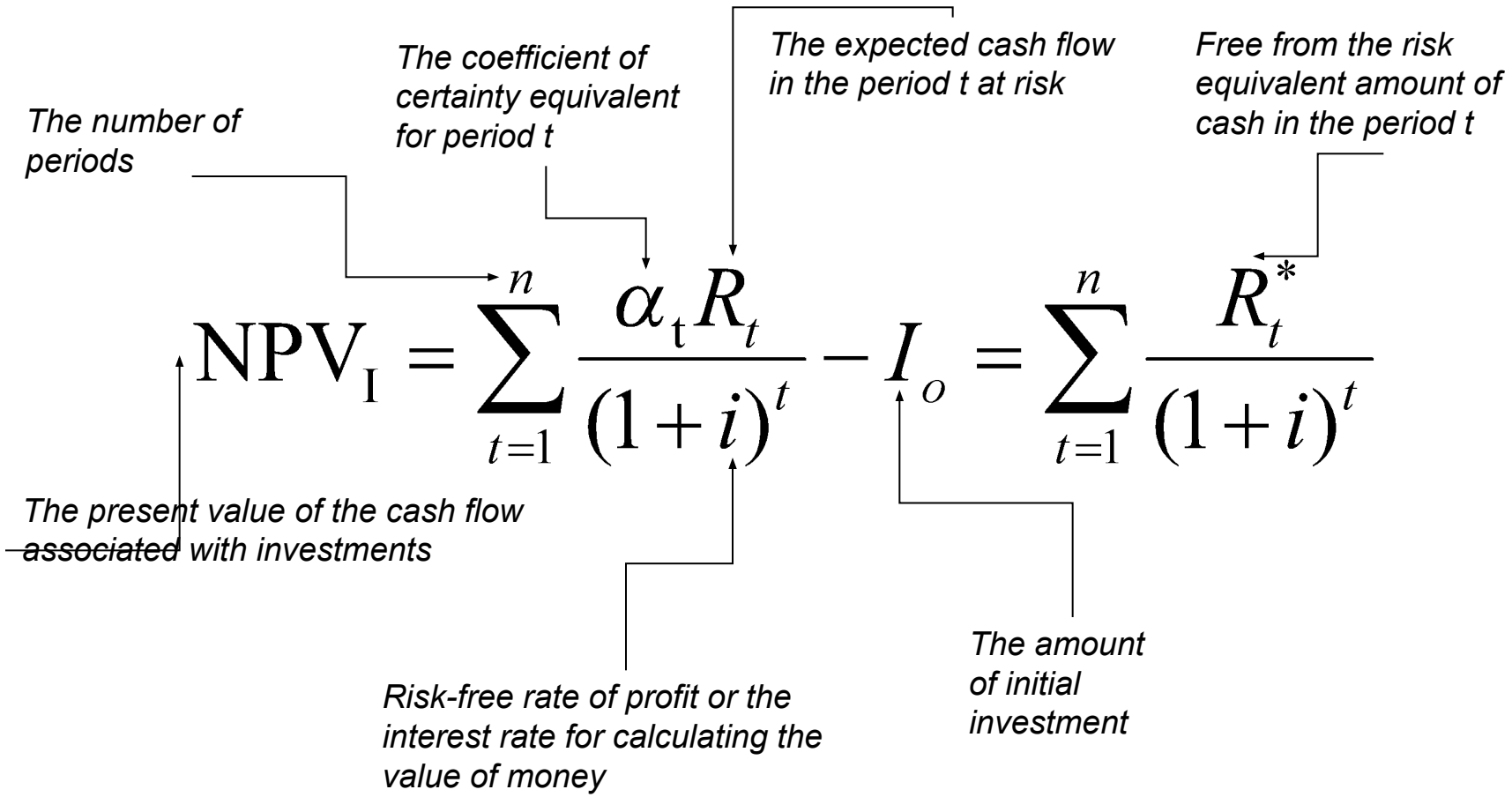
✔***The rate method, corrected for risk***

The rate, corrected for risk

-the required rate of profit from prospective investments after due consideration of the existing risk

Ex:

✔ ***Method of certainty equivalent***



The coefficient of certainty equivalent α is a number between 0 and 1, which reflects the function of risk of the decision maker.

Ex:

$$\alpha_t = \frac{\text{Free from the risk equivalent amount of cash in the period t}}{\text{The expected cash flow in the period t at risk}}$$

It varies inversely with the degree of risk
(the higher the risk, the lower should be the factor)

α = 1 –the project is risk free

α = 0 – the project is too risky

to expect profit

Risk is anyway evaluated by one Manager or team of experts

And most often for any specific period:

$$\frac{\alpha_t R_t}{(1+i)^t} = \frac{R_t}{(1+r)^t}$$

$$\alpha_t = \frac{(1+i)^t}{(1+r)^t}$$

East-West Trading Company