Interest calculation

• Simple interest

$$FV = PV (1 + rt)$$

ullet Compound interest

$$FV = PV \left(1 + r\right)^t$$

• Combined interest

$$FV = PV (1+r)^n (1+rt),$$

where $n \in N \ \bigwedge \ t < 1$.

ullet Effective interest rate

$$r_e = \left(1 + \frac{r}{m}\right)^m - 1$$

• Interest intensity

$$f = ln (1 + r_e) \Rightarrow r_e = e^f - 1$$

• Continous interest

$$FV = PVe^{ft}$$