1.1 Profit and Present Value

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Analytical approach

Profit = Revenue - cost $\rightarrow \pi = P \cdot q - C(q)$

present value

\$1 = PV $\rightarrow$ FV = 1.05 · 1 = 1.05 if interest = 5%

$FV_1 = (1+r)PV$
$V_1 = (1+r)V_0$
$V_2 = (1+r)(1+r)V_0 = (1+r)^2 V_0$
$V_t = (1+r)^t V_0$

PV of some FV?

$PV = FV/(1+r)^t$

$V_0 = \pi_0 + \pi_1/(1+r) + \pi_2/(1+r)^2 + \dots$

$V_0 = \sum_t \pi_t/(1+r)^t \quad (1/1+r)^t < 1 \quad \delta = 1/1+r \quad \delta^t =$ 

-future is uncertain!