

# Econ 424 Lec 1

Note Title

9/30/2009

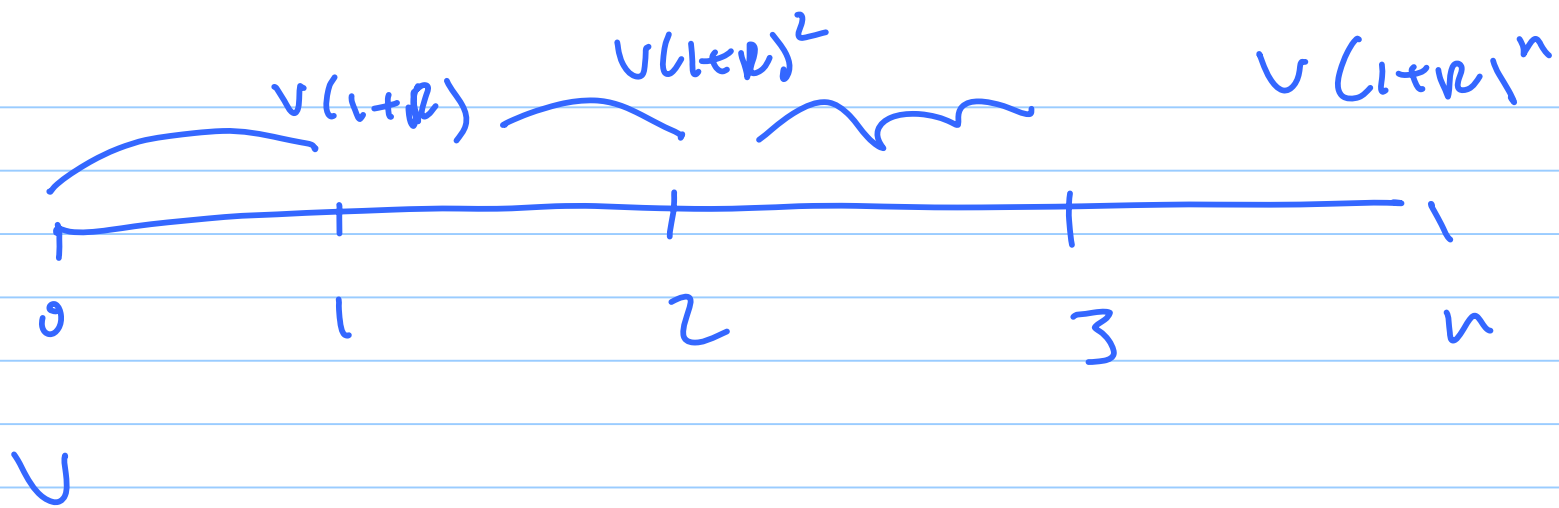
Topics covered:

- Course Introduction
- Return Calculations

Reading:

- EE, Return Calculation notes
- ZEM, chapters 1-3, 5

Future Value:  $FV_n = V(1+R)^n$



Rule of 70:

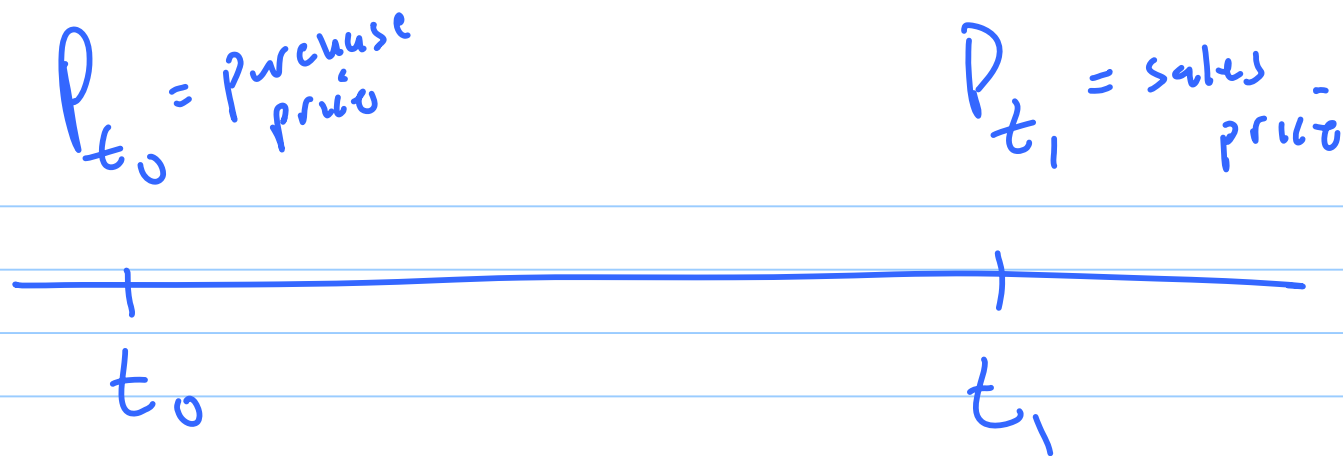
$$n = \frac{\ln(2)}{\ln(1+R)}$$

Set  $FV_n = 2V$

and solve for n:

$$\approx \frac{0.7}{R}$$

$\approx$  # of years it takes for money to double.



Holding Period

$$R(t_0, t_1) = \frac{P_{t_1} - P_{t_0}}{P_{t_0}} = \text{Holding period Return.}$$

Example: Multiple period returns are not additive:

$$R_{t-1} = -0.5, \quad R_t = 0.5$$

$$h_t(2) = (1 + R_{t-1})(1 + R_t) - 1 \neq R_{t-1} + R_t$$

$$(0.5)(1.5) - 1 \neq -0.5 + 0.5 = 0$$

$$\underbrace{\hspace{10em}}_{-0.25}$$