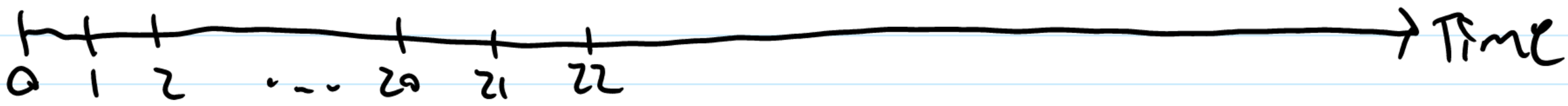
9.11 9.12 Estimating Horizon Values

Sunday, November 8, 2020 12:56 PM

1) Infinite horizon with probability of obsolescence



NPV F = prob end after each year from 20 onwards

↳ 1-F reach T+1
$(1-F)^2$ reach T+2
$(1-F)^3$ reach T+3
$(1-F)^n$ reach T+n

$$\frac{(1-f)}{(1+r)}NB_{21} + \frac{(1-f)^2}{(1-r)^2}NB_{22} + \dots \quad OR \quad \left[NB\sum_{t=1}^{\infty}\left(\frac{1-f}{1+r}\right)^t\right] \Big/ (1+r)^T$$

2) Scrap or Liquidation value
- can be negative
- how to estimate

3) Depreciated Value
- accounting rules ≠ market value
- market depreciation value
- Liquidation value = $V_0(1-d)^T$

4) Fraction of critical cost
- if $(1-d)^T$ is the fraction, same as 3. If not, what?

NPV throws $T + H_T/(1+r)^T$

Sensitivity analysis on T, H_T, breakeven values