- a Challenger & Defender replacement analysis
- b investment project, CFs, how to handle
- c how inflaction affects
- d Open and Closed book - depreciation, CCA
- e working capital - proportion of changing operating cash flows

a. Ecnomic Life Table.

Year Salvage EAC O&M EAC O&M EAC total

h SV_n

EACCAPn * **EAC O&M**

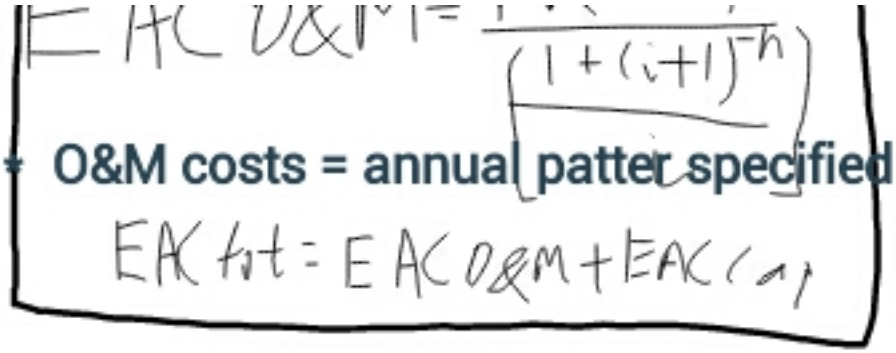
SV_n = oriCost (factor)

SVn = ori cost *(1- 30%)^n 30% declining balance

install cost $\left(\frac{1-(1+i)^{-n}}{i}\right)$

EAC cap n = originl cost + install cost - $\frac{SV_n}{(1+i)^n}$, i is MARR

EAC O&M PV(O&M)



to keep the defender or no?
Case I: defenders marginal costs decreasing, depends
Case II: defender margincal costs increasing, choose the challenger

Defender marginal cost table:

Year	Decreaes in O&M	Marginal cost market value	Forgone Interest
1			
2			

at least,
in order
to see
if case 1
or case 2

decrease in market value = specified via the the depreciation model

if case I, compare marginal cost, with EAC total of economic life,
if margincal cost is lower, choose defender,
if EAC is lower, choose challenger

if case II, construct economic life table for defender.
compare the EAC total at economic life of defender to the EAC total at economic life of the challenger

choose the one with lower cost