

IE375 Spring 2014

(1) Estimation of h (multi-item environment)

(i) Assume $h_i = I c_i \quad \forall i$

(ii) Known operating budget, B

(iii) B is measured (and compared) by $\sum_i c_i \frac{Q_i}{2}$ value.

$$\min \sum_i \frac{K_i \lambda_i}{Q_i}$$

$$\text{s. to } \sum_i c_i \frac{Q_i}{2} \leq B$$

Solution yields a Lagrangian — call it θ .

θ actually corresponds to an estimate of I .

(2) Estimation of p

Idea of inputted cost.

Ref: Text Book

(3) Estimation of K/h ratio

Idea of exchange curves — see

"Inventory & Production Management in Supply Chains"
by Silver et al, 4th Edition, 2016 (CRC Press) on
previous editions.