

$$f_r(i) = \min_X [c(x) + f_{r+1}(i+x-d_r)]$$

$$x \geq 0$$

$$i+x-d_r \geq 0$$

$$i+x-d_r \leq I$$

$$+h \left(i + \frac{x-d_r}{2} \right)$$

Average $\frac{i + i+x-d_r}{2}$

(a) Add a holding cost. Charge h per unit per period.

(b) We have assumed that demand must be met immediately

We could assume you can "back order" up to an amount $-B$

Charge b per unit-period delay. Allow i to be negative

$$f_r(i) = \min_X \left[c(x) + b \max\{0, -i\} + f_{r+1}(i+x-d_r) \right]$$

$i+x-d_r \geq -B$

