$$y_t = x_t - x_{t-1}$$

$$= \delta t + \sum_{i=1}^{t} w_k - \delta(t-1) - \sum_{i=1}^{t-1} w_k$$

$$= \delta t - \delta t + \delta + w_t$$

$$= \delta + w_t$$

$$E[y_t] = \delta + E(w_t) = \delta$$

$$\mathrm{cov}(y_t, y_{t+h}) = E[(y_t - \delta)(y_{t+h} - \delta)]$$

$$= E(y_t y_{t+h} - \delta y_{t+h} - \delta y_t + \delta^2)$$

$$= E[y_t y_{t+h}] - 2\delta^2 + \delta^2$$

$$= E[y_t y_{t+h}] - \delta^2$$

10 11 0

$s = K_n$

$x \cdot \Pi^T = (1, \ldots, 1, -1, \ldots, -1)$

$= \underbrace{1 + \ldots + 1}_{n-1} \underbrace{-1, \ldots -1}_{-n} \Theta(s$

0 1 2 $n-1$ $-n$ $\Theta(s) \geq$

$= E[(\delta + w_t)(\delta + w_{t-1})] - \delta^2 =$

$= E[\delta^2 + \delta w_t + \delta w_{t-1} + w_t w_{t-1}]$

$= \delta^2 + 2\delta + 0$

$= \delta + 2\delta$