

Econ 413R: Computational Economics
Spring Term 2013

Perturbation Methods for DSGE Models
Corrections

Equation (3.9) should be:

$$\Gamma_{[X_{t+1}]}^i H_{\sigma\sigma}^T = - E \left\{ \begin{bmatrix} 0_{1 \times 2n_x} & \Delta_1 & \dots & \Delta_{n_Z} \end{bmatrix} \Gamma_{[X_{t+1}, X_t, Z_{t+1}][X_{t+1}, X_t, Z_{t+1}]}^i \begin{bmatrix} 0_{2n_x \times 1} \\ \Delta_1 \\ \vdots \\ \Delta_{n_Z} \end{bmatrix} \right\}$$

where $\Delta_i \equiv \sum_{s=1}^{n_Z} \omega_{is} \varepsilon_{t+1}^s$ and ω_{rc} is the r^{th} row and c^{th} column of the Ω matrix.

Which implies that equation (4.5) is:

$$H_{\sigma\sigma} = - \frac{\Gamma_{[Z_{t+1}][Z_{t+1}]}^i \sigma^2}{F}$$