$$\mathbb{E}_t \Delta s_{t,t+k} = \Omega_{0,k} + \Omega_{1,k} Y_t - \Omega^*_{1,k} Y^*_t + \frac{1}{2}\left(Y_t^{'} \Omega_{2,k} Y_t - Y_t^{*'} \Omega^*_{2,k} Y^*_t \right) + \Xi_{t+k},$$

where

$$\begin{aligned}
\Omega_{0,k} \equiv\ & k\left(\rho_0 - \rho_0^*\right) + \rho_1^{'} \sum_{j=2}^{k} \sum_{i=1}^{j-1} \left(I + K_1^{\mathbb{P}}\right)^{i-1} K_0^{\mathbb{P}} \\
& - \rho_1^{*'} \sum_{j=2}^{k} \sum_{i=1}^{j-1} \left(I + K_1^{*\mathbb{P}}\right)^{i-1} K_0^{*\mathbb{P}} \\
& + \frac{1+k}{2} \Lambda_0^{'} \Sigma^{'-1} \Sigma^{-1} \Lambda_0 - \frac{1+k}{2} \Lambda_0^{*'} \Sigma^{*'-1} \Sigma^{*-1} \Lambda_0^* \\
& + \Lambda_0^{'} \Sigma^{'-1} \Sigma^{-1} \Lambda_1 \sum_{j=2}^{k} \sum_{i=1}^{j-1} \left(I + K_1^{\mathbb{P}}\right)^{i-1} K_0^{\mathbb{P}} \\
& - \Lambda_0^{*'} \Sigma^{*'-1} \Sigma^{*-1} \Lambda_1^* \sum_{j=2}^{k} \sum_{i=1}^{j-1} \left(I + K_1^{*\mathbb{P}}\right)^{i-1} K_0^{*\mathbb{P}} \\
& + \frac{1}{2} \sum_{j=2}^{k} \sum_{i=1}^{j-1} K_0^{\mathbb{P}'} \left(I + K_1^{\mathbb{P}}\right)^{'i-1} \Lambda_1^{'} \Sigma^{'-1} \Sigma^{-1} \Lambda_1 \sum_{i=1}^{j-1} \left(I + K_1^{\mathbb{P}}\right)^{i-1} K_0^{\mathbb{P}} \\
& - \frac{1}{2} \sum_{j=2}^{k} \sum_{i=1}^{j-1} K_0^{*\mathbb{P}'} \left(I + K_1^{*\mathbb{P}}\right)^{'i-1} \Lambda_1^{*'} \Sigma^{*'-1} \Sigma^{*-1} \Lambda_1^* \sum_{i=1}^{j-1} \left(I + K_1^{*\mathbb{P}}\right)^{i-1} K_0^{*\mathbb{P}}
\end{aligned}$$

$$\begin{aligned}
\Omega_{1,k} \equiv\ & \left(\rho_1^{'} + \Lambda_0^{'} \Sigma^{'-1} \Sigma^{-1} \Lambda_1\right) \left(I + \sum_{j=2}^{k} \left(I + K_1^{\mathbb{P}}\right)^{j-1} \right) \\
& + \sum_{j=2}^{k} \sum_{i=1}^{j-1} K_0^{\mathbb{P}'} \left(I + K_1^{\mathbb{P}}\right)^{'i-1} \Lambda_1^{'} \Sigma^{'-1} \Sigma^{-1} \Lambda_1 \left(I + K_1^{\mathbb{P}}\right)^{j-1}
\end{aligned}$$

$$\begin{aligned}
\Omega^*_{1,k} \equiv\ & \left(\rho_1^{*'} + \Lambda_0^{*'} \Sigma^{*'-1} \Sigma^{*-1} \Lambda_1^*\right) \left(I + \sum_{j=2}^{k} \left(I + K_1^{*\mathbb{P}}\right)^{j-1} \right) \\
& + \sum_{j=2}^{k} \sum_{i=1}^{j-1} K_0^{*\mathbb{P}'} \left(I + K_1^{*\mathbb{P}}\right)^{'i-1} \Lambda_1^{*'} \Sigma^{*'-1} \Sigma^{*-1} \Lambda_1^* \left(I + K_1^{*\mathbb{P}}\right)^{j-1}
\end{aligned}$$

$$\Omega_{2,k} \equiv \Lambda_1^{'} \Sigma^{'-1} \left(I + \sum_{j=2}^{k} \left(I + K_1^{\mathbb{P}}\right)^{'j-1} \left(I + K_1^{\mathbb{P}}\right)^{j-1} \right) \Sigma^{-1} \Lambda_1$$

$$\Omega^*_{2,k} \equiv \Lambda_1^{*'} \Sigma^{*'-1} \left(I + \sum_{j=2}^{k} \left(I + K_1^{*\mathbb{P}}\right)^{'j-1} \left(I + K_1^{*\mathbb{P}}\right)^{j-1} \right) \Sigma^{*-1} \Lambda_1^*$$

$$\begin{aligned}\Xi_{t+k} \equiv\ & trace\left(\frac{1}{2} \sum_{j=2}^{k} \sum_{i=1}^{j-1} \Sigma' \left(I + K_1^{\mathbb{P}}\right)^{'i-1} \Lambda_1' \Sigma^{'-1} \Sigma^{-1} \Lambda_1 \sum_{i=1}^{j-1} \left(I + K_1^{\mathbb{P}}\right)^{i-1} \Sigma \right) \\ & -trace\left(\frac{1}{2} \sum_{j=2}^{k} \sum_{i=1}^{j-1} \Sigma^{*'} \left(I + K_1^{*\mathbb{P}}\right)^{'i-1} \Lambda_1^{*'} \Sigma^{*'-1} \Sigma^{*-1} \Lambda_1^* \sum_{i=1}^{j-1} \left(I + K_1^{*\mathbb{P}}\right)^{i-1} \Sigma^* \right)\end{aligned}$$