Problem Set 7

April 16, 2012

Let

$$J\left(W_t, I_t, t\right) \equiv \max_{C_s, \{\omega_{is}\}, \forall s, i} E_t \left[\sum_{s=t}^{T-1} U\left(C_s, s\right) + B\left(W_T, T\right) \right]$$

subjec to

$$W_{t+1} = \left(W_t + y_t - C_t\right) \left(R_{ft} + \sum_{i=1}^{n} \omega_{it} \left(R_{it} - R_{ft}\right) \right) = S_t R_t.$$

Show that

$$J_W\left(W_{T-2}, T-2\right) = R_{f,T-2} E_{T-2} \left[J_W\left(W_{T-1}, T-1\right) \right].$$

This problem set is due to April, 30th.