$$R^+_{i\_,j\_} := \mathbb{E}\left[1, \text{Log}[t_i]\, c_j, v_i\, w_j, v_i\, c_i\, w_j + c_i\, c_j + v_i^2\, w_j^2/4\right];$$

$$R^-_{i\_,j\_} := \mathbb{E}\left[1, -\text{Log}[t_i]\, c_j, -t_i^{-1}\, v_i\, w_j,\right.$$
$$\left. t_i^{-1}\, v_i\, c_j\, w_j - c_i\, c_j - t_i^{-2}\, v_i^2\, w_j^2/4\right];$$

$$\left(ur_{i\_} := \mathbb{E}\left[t_i^{-1/2}, 0, 0, c_i\, t_i^{-2}\right]; \quad nr_{i\_} := \mathbb{E}\left[t_i^{1/2}, 0, 0, -c_i\, t_i^2\right];\right)$$