

Households receive a utility flow u from consuming $c_t \geq 0$ and a disutility flow from supplying labor ℓ_t , where $\ell_t \in [0, 1]$ are hours worked as a fraction of the time endowment, normalized to 1. The function u is strictly increasing and strictly concave in consumption, and strictly decreasing and strictly convex in hours worked. **Preferences** are time-separable and, conditional on surviving, the future is discounted at rate $\rho \geq 0$:

$$(10) \quad E_0 \int_0^\infty e^{-(\rho+\zeta)t} u(c_t, \ell_t) dt,$$