Overlapping Generation Model

Model

In the Overlapping Generation Model (OLG), we assume that * there are two generations: young and old * the young generation works and consumes * the old generation does not work and consumes * the young generation becomes the old generation in the next period * the old generation dies in the next period

We can model this economy as follows:

$$\max_{c_1,c_2} u(c_1) + \beta u(c_2)$$
$$\text{s.t.}$$
$$c_1 + s = w$$
$$c_2 = (1+r)s$$
$$c_1, c_2, s \geq 0$$

where c_1 is the consumption of the young generation, c_2 is the consumption of the old generation, s is the saving of the young generation, w is the wage rate, r is the interest rate, and β is the discount factor.