

mm space: one good at each  $t$

labor supply

person of age  $a$  supplies  $e_a$  units

$$\text{total labor supply } n_t = \sum_a e_a x_{ta}$$

technology

$$y_t = f(k_t, z_t n_t)$$

$$k_{t+1} = (1-\delta)k_t + i_t$$

resource constraint

$$y_t = c_t + i_t$$

Preferences

$$U_a = \sum_a \beta^a S_a^a u(c_{ta})$$

(no leisure)

$$c_t = \sum_a c_{ta} x_{ta}$$

Agents & demography

cohort born in each year  $t$

number born.  $X_{t0}$

one-period survival prob  $s_a: a \rightarrow$

Prob at 0 of surviving to

$$S_a = s_1 s_2 \dots s_{a-1}$$