Insert in demo section

fertility rates

f_a = fert. of gen t at age a

$n_{t0} = \sum_j f_j \, x_{t-j,j}$

Short cut: $n_{t0} = 1$ all t

Comp eq

- cons max
- firm max
- mkts clear

r_t – gross int rate from t to $t+1$

$q_t = 1/r_t$ = price one-period bond

Cons max

$$\max_{\{c_{th}\}} U_{ght}(S_h)$$

⟨ Change a's to h in previous ⟩

$$a_{t+1,h+1} = r_t \, a_{t,h} + w_t \, e_h + b_h - c_{t,h}$$

⟨ (i) date-0 version w/ PV c = PV w
adj for survival ⟩

Firm max

$$\max_{(k_t, n_t, i_t)} y_t - w_t n_t - r_t k_t$$

$(?) + q_t (1-\delta) k_t$

q_t

See notes or Victor

Mkts clear

goods: $y_t = c_t + i_t$

assets: $a_t = k_t$

$$a_t = \sum_h a_{th} \cdot x_{th}$$

Then what?

- Describe demographic par
- (Solution methods)