Review for 11-15-16

Convexity:

$$\bar{C} = \frac{P''(i)}{P(i)} = \frac{\sum_t t(t+1)(1+i)^{-(t+2)} R_t}{\sum_t v^t R_t}$$

$$P(i+h) \doteq P(i)\left[1 - h\bar{v} + \frac{h^2}{2}\bar{C}\right]$$

Absolute Matching:

Create a A_t so that

$$A_t = L_t \quad \text{for all } t \text{ with } L_t > 0$$

Redington Immunization:

Create a cash flow with

$$P(i_0) = 0 \qquad P'(i_0) = 0 \quad \text{and} \quad P''(i_0) > 0$$

at $i = i_0$, so the present value has a local minimum at $i = i_0$

Full Immunization:

In addition to Redington Immunization, argue that

$$R(i) \geq 0 \quad \text{for all } i.$$