# ECON 210C PROBLEM SET # 2

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## 1. Investment and the Housing Market

**(a).**

(1) $I = \psi(P)$: Gross investment in housing is an increasing function of the price of houses. This specification implies that housing investment can be interpreted as the supply of new housing.

(2) $r + \delta = (R + \dot{P})/P$: This implies that the costs of investing into a house, namely forgone investment income and depreciation are equal to the benefits, namely rental payments and capital gains.

(3) $R = R(H)$: Rental cost is a decreasing function of the size of the housing stock.

(4) $\dot{H} = I - \delta H$: The housing stock can change in two ways, housing investment and depreciation.

**(b).** We merely substitute to obtain

$$\dot{H} = \psi(P) - \delta H$$
$$r + \delta = (R(H) + \dot{P})/P$$