Unit 4: Housing
Reading: Mills and Hamilton, Chapters 10, 11, 12

Lecture 4.1
For todays lecture: Chapter 10, pp. 196-204.
For next Tuesday: Chapter 10, pp. 206-219, Chapter 11.

I. Introduction
A. The How and Why
B. Understanding problems and solutions

II. Measuring and pricing housing
A. Attributes = quantity
B. Assume market works: price = marginal benefit = marginal cost for all houses.
C. Hedonic pricing using indifference curves
D. Price per unit quantity
1. Asset price = V = sale price per "unit" house
2. Rental price = R = yearly rent per "unit" house

III. Buying and renting: THE FORMULA (Simple Version)
A. Simple version:

$$R = i \cdot V$$

where i = prevailing annual interest rate (rate of return on next best investment.)

B. A rewritten version:

$$V = R/i = \sum (R/(1+i)^t = \text{net present value of future rental income}$$

C. Some comments
1. Rental value is true "price" of a years worth of housing.
2. Mortgage or cash, doesn't matter.

IV. Cost of Capital: THE FORMULA (More realistic version)
A. There are other costs (and benefits) to maintaining a house

$$R = iV + tV + cV + u - gV$$

where t = tax rate, c = proportional cost incurred in upkeep, u = fixed cost incurred in upkeep, g = appreciation or depreciation of property.
B. Note difference with textbook – I include a fixed upkeep cost.

Economics 350: Fall 2001. Class 14 (Tuesday, September 16, 2001)

Lecture 4.2
Reading: For today: Chapter 10, pp. 206-219, Chapter 11 (skim).
For Thursday: Chapter 12

I. Demand and Supply
A. Consumers "see" rental cost R
B. Producers "see" asset price V
C. Tied together by the arbitrage equation.

II. Supply
A. Inelastic in short run
B. Stock + new housing added - old housing lost (see tables 10.3, 10.4)
C. Developers - small scale, many producers, highly competitive market
D. New construction extremely sensitive to business cycle
E. Construction industry active in local and national politics

III. The Credit Market
A. Old, well developed in U.S.
B. Secondary mortgage markets increase liquidity
C. For more details, see Chapter 11.

IV. Taxation - the (not so hidden) subsidy to owner-occupied housing
A. Intuition
B. Simple example: (use R = iV formula)
30% tax bracket; Rent of 1,000.00 per month. i = 0.05 (or 5%), mortgage of 200,000.
C. Implications:

V. The decision to rent or buy
A. Credit constraints
B. Transaction costs

VI. Implications of U.S. tax policy
A. Too much housing
B. Not enough other investment
C. Until recently, favored single family homes over apartments (condos)
D. Can't subsidize everyone effectively – everyone also pays, in lower capital stock in industry, lower worker productivity, lower wages. (General equilibrium)

Lecture 4.3
Reading: For today, Chapter 12
For next week: **Unit 4: What do city governments do?** (10/18-11/6)
Mills and Hamilton: Chapter 8: Welfare Economics and Urban Problems, especially pages 167-174; Chapter 14: Local Government; Mills and Hamilton Chapter 9: pages 185-189 (Federal Government)

I. History of housing quality over last century

II. Where the poor get their housing
A. Filtering
B. Urban growth, quality, and location of housing
C. retirement and abandonment
    1. When demolition doesn't pay
D. Homelessness
    1. When individuals cannot pay rent = u.
    2. As many reasons for homelessness as there are reasons for poverty

III. Neighborhood effects — Location, location, location.
A. Minimal in middle class neighborhoods
B. (Probably) more important in poor neighborhoods
C. Clustering the poor may have large negative externalities.

IV. Discrimination and Segregation
A. Measuring segregation
B. Measuring discrimination by looking at price, quantity.
C. The bottom line

V. Policies to improve the housing of the poor
A. Regulation
    1. Safety, minimum standards – raises prices.
B. Public Housing (supply subsidies)
C. Section 8 (demand subsidies)
D. Rent control
E. Poverty is the problem