

# MIDTERM SOLUTIONS

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# Q1 Why real estate decisions are different?

- High value
- Long economic life
- Debt financing
- High transaction costs

## Q2A Economic perspective

- Housing service – heterogenous, multidimensional good (location, quality, space), tenure (to rent vs to own)
- Durable good – consumption & investment
- Spatially fixed good
- Transaction costs
- Externalities

## Q2B Social perspective

- UN declaration on human rights in 1948: The right to housing is a social right in addition to political and civil rights.
- Housing policy guidelines, EEC 1992: this right is unenforcable and non-claimable.
- UN Council for human rights: The right to 'adequate housing'

## Q2B Housing as a merit good

- A merit good is a good, for which the society believes that its consumption is inherently desirable and must be supported (housing, education)
- Merit goods vs. public goods

## Q2C Housing policy instruments

- Income tested cash allowance (demand side subsidy) – more efficient, politically less feasible.
- Lowering the cost of housing – rent control, social housing (supply side subsidy)
- Tax relief and interest subsidies (demand side subsidy)

## Q3 Determinants of house prices in CEE - Egert & Mihajlek (2007)

- ◆ A: Conventional fundamentals: GDP per capita, real interest rates, housing credit, demographic factors.
- ◆ B: Transition-specific factors: institutional development of housing markets and housing finance, quality effects, demand from other European countries

# Q4 Haurin: The US Housing Crisis

- ◆ A: Standard fundamental causes of the housing boom: Rising income, population, lower int. rates
- ◆ A: Newer factors? Excessive expectations, mortg. Mkt. innovations, appraisers
- ◆ B: What factors caused the end of the boom? expected house price growth began to fall, the user cost of owning increased, Housing supply continued to rise until early 2006, Subprime foreclosures began to increase
- ◆ C: Macro factors in common, fin. Innovations in the US vs. specific factors in CEE



## Q5A Owners vs. renters

- ◆ Skinner
- ◆ Current homeowners: increase consumption by 3-6% i.e. lower savings, home equity loans freed capital gains
- ◆ Potential home owners (renters): increase savings to purchase a house later

## Q5B Zemcik (2008): Residential real estate market in the CR still going strong

- ◆ The increase of net disposable income and construction costs in 2001–2003 was 6.2% and 4.9%, respectively. Both the leftward shift of the supply curve and the rightward shift of the demand curve increased the prices of housing.
- ◆ Putting together these numbers with the growth in rents implies  $6.2\% + 4.9\% + 18.0\% = 29.1\%$ , which is comparable with the 27.6% apartment price growth from 2001 to 2003. This supports the conclusion that the growth of apartment prices was in line with the fundamentals from 2001 to 2003.
- ◆ The numbers for the 2004–2007 period are  $19.9\% + 9.6\% + 6.8\% = 36.3\%$ , much lower than the increase of 49.5% in the apartment prices.
- ◆ Mortgage volume rose by 56.4% in 2007

## Q6 Supply and demand

- ◆ A: Demand and supply increases, quantity increase, cannot tell about the price
- ◆ B: Demand increases, supply decreases, prices increase, cannot tell about quantity.

# Q7 Present value model

ITEM	Year	
	1	2
Potential gross income (5% annual growth rate)	106,000	111,300
- vacancy and collection losses (4%)	-4,240	-4,452
Effective gross income	101,760	106,848
Operating expenses		
Fixed		
- Property taxes 20.17%	-20,908	-21,953
- Hazard insurance	-1,460	-1,533
- Licenses and permits	-250	-263
Variable		
- Gas, water, electricity	-2,800	-2,940
- Supplies	-1,350	-1,418
- Advertising	-730	-767
- Payroll	-3,988	-4,187
- Management, 5% of gross income	-5,088	-5,342
- Miscellaneous services	-1,160	-1,218
- Property maintenance	-1,850	-1,943
Net Operating Income	62,176	65,285
PV	695257.5	