Chapter 7

1, Lists and explains four characteristics of urban planning in Spain

2. Landowners Vote on a Growth Boundary

Consider a city where the owners of vacant lots will vote on a proposed growth boundary. There are 12 vacant lots (one per owner), four inside the proposed boundary and eight outside the boundary. The initial price of land is $20 per lot. The growth boundary will halve the price of land outside the boundary.

a. If the growth boundary doubles the price of lots within the boundary, the policy [increases, decreases] the total value of land from _____to _____.

b. Suppose the growth boundary quadruples the price of lots within the boundary, the policy [increases, decreases] the total value of land form _____ to _____. The vote tally will be _____landowners in favor and _____opposed.

c. Suppose the city combines the proposed growth boundary with a capital-gains tax equal to 80percent of the change in the price of land. The revenue from the tax will be redistributed, in equal shares, to landowners outside the boundary. The tax per inside landowner would be _____and the compensation per outside landowner would be _____. The vote tally will be _____ landowners in favor and _____ opposed.

3. Compensation for a Growth Boundary

Consider a residential city that initially has no controls on urban growth. Its radius is expected to increase from six miles to nine miles. Suppose the city announces a new growth boundary at its current radius (six miles). Your job is to develop a self-financing program under which landowners who gain from the boundary compensate landowners who lose. For each of the following individuals, indicate whether he o she will be a compensator or compensate, and whether the payment will be relatively large or relatively small. Illustrate your answers with a graph.

a. Bennie owns land three miles from the city center. He is a compensat [or, ee], and the payment will be relatively [large, small].

b. Remus owns land 5,6 miles from the center. He is a compensat [or, ee], and the payment will be relatively [large, small].

c. Margie owns land 8.5 miles from the city center. She is a compensat [or, ee], and the payment will be relatively [large, small].

4. Growth Boundary and the Urban Labor Market

Consider the effects of a growth boundary on the urban labor market. Assume the boundary directly affects only residential land, not commercial or industrial land.

a. Use a supply- demand graph of the urban labor market to show the effects of the growth boundary on the city's equilibrium wage and total employment.

b. Arrows up and down: The policy ___ the equilibrium wage and ___ equilibrium employment.

c. We would expect the owners of commercial and industrial land to [support, oppose] the boundary because….

5. Permit Queue:

Consider the building–permit policy depicted in Figure 9–5. Suppose the city announces on January 1 that 300 days later (October 28) it will give the 70 permits to the first 70 licensed building contractors through the planning office door. The police chief announces the following queuing rules:

i. No cuts: A person who joins the queue goes to the end of the queue.
ii. No substitutions: No one can reserve a place in line for anyone else.

The price of a permit is the time a recipient spends in the queue. There are four types of licensed contracts, with 25 contractors of each type: For type A, the opportunity cost of queue time is $300 per day; for type B, the cost is $500 per day; for type C, the cost is $1,000 per day; for type D, the cost is $2,000 per day.

a. Draw a supply-demand graph of the permit market, with the price measured as the days spent in the queue.

b. The equilibrium queue time is ____ days because ….

c. If the city eliminates the no-substitution rule, the equilibrium queue time will [increase, decrease, not change] because … The line will form immediately if …d. If the city eliminates the no-cuts rule, the allocation of permits will be based on ___and the price will be in terms of ….

6. Decrease in Demand and Permit Price

In Figure 9-5, the equilibrium price of building permits is $90,000. Consider the effects of changes in demand,

a. If the demand curve shifts downward by $25,000, the equilibrium price of housing is ___and the equilibrium of a permit is -___ = ___ minus ___.

b. If the demand curve shifts downward by $100,000 the equilibrium price of the permit is ___because ….

7. Permit Restrictions and the Urban Labor Market

Consider the labor – market effects of a policy that limits residential building permits.

a. Use a supply – demand graph of the urban labor market to show the effects of the permit policy on the city´s equilibrium wage and total employment.

b. Arrows up or down: The policy ___ the equilibrium wage and ___equilibrium employment.

c. We would expect the owners of commercial and industrial land to [support, oppose] the boundary the permit policy because ....

8. Incidence of Development Tax

Leapfrog city has two rings of vacant land suitable for housing, one that is three miles from the center and a second that at the edge of the city, six miles from the center. Both rings were expected to be developed in the next year. Suppose the city imposes a new development tax of $20,000 per new house. The tax will be paid, in legal terms, by the firm that builds the house.

a. Use a supply – demand graph to show the effects of the development tax on the city´s housing market.

b. Arrows up, down or horizontal: The tax ___the equilibrium price of new housing, _____the equilibrium quantity of housing, _____the demand for vacant land, and ___the price of land.

c. According to Ms. Wizard´s, “The tax will prevent the development of the outer ring of vacant land (six miles from the center) “. Draw a graph that is consistent with Wizard´s statement.

9. Land-Use Policies and the Price of Land

Consider the following: "Depending on the variable controlled by a land – use policy, the policy may either increase or decrease the price of undeveloped land." The "variable" is "the supply of" or "demand for a particular type of land for a particular type of land. Consider the following land – use policies: Growth boundary (GB); Limit on building permits (BP); Development tax (DT). For each policy, fill the blanks in the following statement. For a policy that controls two variables, there will be two statements .

A GB policy [increases**, decreases] the [**demand for**, supply of] land within the boundary, and [**increases**, decreases] the equilibrium price.**

A GB policy [increases, decreases**] the [**demand for**, supply of] land outside the boundary, and [increases,** decreases**] the equilibrium price.**

A BP policy [increases, decreases**] the [**demand for**, supply of] land, and [increases,** decreases**] the equilibrium price.**

A ___policy [increases, decreases] the [demand for, supply of] ___land, and [increases, decreases] the equilibrium pric**e.**

10. Floor Area Ratio calculations

The General Urban Distribution Plan (Plan General de Ordenación Urbana) for Getafe allows a Floor Area Ratio (FAR) of 5.0 or 5 to 1 (5m of floor area to 1m area of the lot). The floor area is computed differently depending on the final use:

- Residential: 1m (1m of floor is measured as 1m)
- Underground garage: 0.6
- Balconies and usable attic: 0.5
- Commercial: 1.5

The apartments shall be sold with two parking spaces, and the maximum height of the building shall be 12 meters (measured till the roof of the last floor.

The minimum height for each floor shall be

- Residential: 2.5
- Underground garage: 3.0
- Commercial: 2.6

The developer Charlie Three Dwellings has invested in a plot of 10.000 m2. If the cost for all building types is the same, and the apartments have a market price of 4.000€/m2 and the commercial space has a price of 5.000€/m2 how much residential and commercial space will Charlie Three Dwellings develop?