

RE 310 – Principles of Real Estate

What Gives Value to Real Estate?

Practice Homework Problems

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- 1) Suppose you are a corporate real estate officer for McDonalds. What factors will you consider when deciding where to locate a new restaurant?
- 2) Explain briefly how real estate markets differ from the classical perfect competition model. What does this imply about changes in real estate rents in response to demand or supply shifts? What does it imply about your ability to earn “above-normal profits” in real estate markets?
- 3) What is arbitrage? Is it possible in real estate?
- 4) What are the key characteristics of perfectly competitive markets? Which of these break down for real estate markets? What impact does this have on price formation in real estate markets?
- 5) Suppose that downtown loft apartments suddenly became the most desirable residential space in the city? What impact would you expect to see in the downtown market in the short run (up to six months)? What would you expect to happen over the long term?
- 6) What is *market value* in the context of an appraisal? What are the key assumptions that go into this definition?
- 7) Describe the central idea or justification behind each of the three basic approaches to real estate appraisal.
- 8) What is the difference between curable and incurable physical deterioration? Give an example of each.
- 9) A subject property has 1,800 square feet, 2 bedrooms, 1.5 baths, and is located on a 10,000 square foot corner lot. The proposed sale price is \$110,000.

A comparable property sold for \$120,000 one year ago. It has 2,000 square feet, 3 bedrooms, 2.5 baths, and sits on a 20,000 square foot interior lot.

The following adjustments are applicable:

House size: \$30 per square foot;

Bedrooms: \$1,750 each;

Lot size: \$15,246 per acre;

Bathrooms: \$2,500 each;

Lot locations: \$0.10 per square foot more for corner lots.

Market conditions: Market values have increased by approximately 3% over the last year.

Using this information, what is the indicated value of the subject property?

10) A subject property has 2,000 square feet, 3 bedrooms, a 1 acre lot, brick exterior, and is in “good” condition. The proposed sale price is \$135,000.

A comparable property sold for \$125,000 three months ago. It has 4 bedrooms, 1,700 square feet, a ¼ acre lot, frame exterior, and is in “excellent” condition.

The following adjustments are applicable:

House size: \$25 per square foot;

Bedrooms: \$1,500 each;

Lot size: \$15,000 per acre;

Brick exterior: \$5,000 more than a frame exterior;

Excellent condition: \$2,000 more than “good” condition.

Using this information, what is the indicated value of the subject property?

11) The HVAC system in a commercial office building has a useful life of 20 years and its replacement cost is \$80,000. If the system is 15 years old, what is the incurable physical deterioration associated with this short-lived component?

12) Suppose the total reproduction cost of a building is \$750,000, its effective age is 5 years, its total economic life is 30 years, the reproduction cost of short-lived curable items is \$50,000, and the reproduction cost of the short-lived incurable items is \$100,000. What is the total long-lived physical deterioration for this building?

13) The GRM for duplexes in a particular part of town is 90. If a duplex generates gross rents of \$1,200 per month, what would be its indicated value using the income approach?

14) In order to expand a major arterial road, the city must condemn part of the land on which an apartment building now rests. Although the building itself will not need to be destroyed, the rents it will command will be reduced by approximately \$25 per month, per unit.

If the apartment building currently contains 12 units and the appropriate gross rent multiplier is 90, what is the external obsolescence the building will suffer due to the condemnation?

15) The building for a small neighborhood retail center would cost \$1,500,000 to replace. This building has an effective age of 15 years, and a total economic life of 50 years. The land on which it lies has a value of \$250,000.

The only major short-lived components in the building are carpeting and fixtures. The replacement cost of these items is \$400,000, and they currently have 25% of their useful life remaining.

The property has no functional or external obsolescence.

- a) What is the total short-lived physical deterioration for this building?
- b) What is the total long-lived physical deterioration for this building?
- c) What is the value of the property as indicated by the cost approach?

16) The GRM for rental houses in a particular part of town is 80. If a house in this neighborhood generates gross rents of \$900 per month, what would be its indicated value using the income approach?