Appraisal Fundamentals

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Why Appraisals Are Needed

Appraisals are requested for as many different reasons as there are clients. All the scenarios outlined at the beginning of the chapter involve significant financial decisions that might require an appraisal and therefore an appraiser. Appraisals are often required by law, such as in many lending situations. Traditionally, appraisals for mortgage lending have been the bulk of work for appraisers of residential property, and changes in governmental regulations on mortgage lending can have a significant effect on the amount of work those appraisers have. As another example, a condemning authority typically must prepare an appraisal for a property that is taken through the exercise of the governmental power of eminent domain as support for the amount of just compensation payable to the property owner. Indeed, in most situations in which the value of real property is contested in court, appraisals serve as primary evidence and appraisers are commonly summoned to testify as expert witnesses on matters relating to the value of real property.

When an appraisal is not required by law, it may be desired by a client because the appraiser's opinion is objective and unbiased and the information about the value of real property will be useful in some financial decision. For example, a property owner might order an appraisal to set an offering price for the property that buyers would consider current and that would likely be accepted by the market without a significant marketing period.

Table 1.2 does not reflect all possible uses for appraisals, but it does provide a broad sampling of professional appraisal activities.
The Valuation Process

The valuation process is a systematic procedure an appraiser follows to provide answers to a client's questions about real property value. It is a model that can be adapted to a wide variety of questions that relate to value. It can also be used—perhaps with some modification—to answer questions not directly related to value, as in the case of review and consulting assignments.

The valuation process begins when the appraiser enters into an agreement with a client to provide a valuation service. Generally, the terms of the agreement are satisfied when the appraiser delivers the assignment results (opinions and conclusions) that were agreed upon with the client. The objective of most appraisal assignments is to develop an opinion of market value. The valuation process contains all the steps appropriate to this type of assignment. The model also provides the framework for developing an opinion of other defined values.

The valuation process is accomplished through specific steps. The number of steps followed depends on the intended use of the assignment results, the nature of the property, the scope of work deemed appropriate for the assignment, and the availability of data. The model provides a pattern that can be used in any appraisal assignment to perform market research and data analysis, to apply appraisal techniques, and to integrate the results of these activities into an opinion of defined value. In
Figure 1.1 Estates in Land

- Estates
  - Indeterminate duration
    - Freehold
      - Fee Simple
        - Fee Simple Absolute
      - Fee Simple Defeasible
    - Includes a future interest or possession
      - Life Estate
  - Defined duration
    - Leasehold
      - Estate for Years
        - Estate from Period to Period
      - Estate at Will
      - Estate at Sufferance

- Does not include a future interest or possession
The term *market analysis* is used broadly in economics to describe the identification and study of the market for a particular economic good or service, but it has more specific meaning within the discipline of real property appraisal. For appraisers, market analysis is a process for the examination of the demand for, and supply of, a property type and the geographic market area for that property type.

Appraisers generally apply market analysis at two levels:

1. From the perspective of a broad market
2. From the perspective of the market in which a given property competes

Although there is a logical continuum from the general to the specific, market analysis applied to a specific property is of particular importance in the valuation process and should not be confused with general market analysis or related studies. (When a specific property is not the focus of the study, the term *market study* is normally employed. For a specific property, the term applied is *marketability study.*) Market analysis may take the form of either inferred analysis or fundamental analysis, depending on the intended use of the appraisal, the property type, and market conditions. Although the process is commonly referred to as *market analysis*, all appraisals must include what is more precisely labeled a *marketability study*. A marketability study includes a critique of the subject property, a study of the economic environment in which it is
market analysis
A process for examining the demand for and supply of a property type and the geographic market area for that property type.

market study
A macroeconomic analysis that examines the general market conditions of supply, demand, and pricing or the demographics of demand for a specific area or property type.

marketability study
A microeconomic study that examines the marketability of a given property or class of properties, usually focusing on the market segment (or segments) in which the property is likely to generate demand.

and will be functioning, and an estimate of the subject property’s proportional capture of market demand.

In the appraisal of a specific property, the purpose of market analysis is to show how the interaction of supply and demand affects the property’s value. For example, if current market conditions do not indicate adequate demand for a proposed development, market analysis may identify the point in time when there will be adequate demand for the project. Thus, market analysis helps an appraiser forecast the timing of a proposed improvement and the amount of demand anticipated in a particular period of time. The marketability study helps the appraiser forecast how much of the demand the subject property will capture (e.g., future absorption and operations outlook for future occupancy and rents).

Market analysis also provides a basis for determining the highest and best use of a property. In short, the market determines the use, and the use affects the value. An existing or proposed improvement under a specified use may be put to the test of maximum productivity in highest and best use analysis only after it has been demonstrated that an appropriate level of market support exists for that use. In-depth market analyses go much further in specifying the character of that support. The studies may determine key marketing strategies for an existing or proposed property, address the design characteristics of a proposed development, provide estimates of the share of the market the property is likely to capture and its probable absorption rate, or suggest alternative uses in a market in which the existing use of a specific property is oversupplied.
<table>
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<tr>
<th>Approach to Value</th>
<th>Uses of Market Analysis</th>
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<tr>
<td>Cost</td>
<td>Market analysis provides an appraiser with information about current building costs and market conditions. This information helps the appraiser estimate the profit an entrepreneur will expect and any economic advantage or obsolescence that may have affected the property since its construction.</td>
</tr>
<tr>
<td>Sales comparison</td>
<td>Market analysis helps an appraiser identify competitive properties and determine their exact degree of comparability with the subject. With a thorough understanding of current market conditions gained through market analysis, an appraiser can adjust the sale prices of comparable properties for changes in market conditions that may have occurred since the sales occurred and support an adjustment for the economic characteristics of comparable properties.</td>
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<tr>
<td>Income capitalization</td>
<td>In the market analysis process, an appraiser collects data on vacancy and absorption rates, market rents, current and anticipated rates of return, and the competitive position of the subject property in its specific market. In the income capitalization approach, this information is used to determine the anticipated lease-up or sell-out rate for the subject property, the share of the market that the subject is likely to capture, the future income stream it is likely to enjoy, and an appropriate discount rate or capitalization rate to apply to the income stream projection or annualized income expectancy. Market analysis also helps appraisers forecast supply and demand and stabilized revenue, i.e., develop a revenue forecast for the subject.</td>
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<tr>
<td>Step</td>
<td>Description</td>
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<tr>
<td>Step 1</td>
<td>Define the product (property productivity analysis)</td>
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<td>Step 2</td>
<td>Market (market area and competitive area) delineation</td>
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<td>Step 3</td>
<td>Demand analysis</td>
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<td>Step 4</td>
<td>Supply analysis (survey and forecast of competition)</td>
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<td>Step 5</td>
<td>Analyze the interaction of supply and demand</td>
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<td>Step 6</td>
<td>Forecast subject capture (market penetration concepts)</td>
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Demand analyses for residential and retail markets specifically investigate the households in the subject’s market area. (A household is defined as a number of related or unrelated people who live in one housing unit. Thus, a single individual may constitute a household.) In addition to the number of households in the market area, these analyses focus on the disposable income, or effective purchasing power, of the households and the ages, gender, preferences, and behavioral patterns of household members.

**Competitive Supply**

In the context of market analysis for real estate, *supply* refers to the production and availability of the real estate product. To analyze supply, an appraiser can compile an inventory of properties that compete directly with the subject property, including known future competition and even unknown, but likely, future competition. Competitive properties include the stock of existing units, units under construction that will enter the market, and projects in planning.

Appraisers should exercise care in developing and analyzing data on proposed or announced projects because some will not ultimately be constructed. Appraisers should also determine the number of units lost to demolition and the number added or removed through conversion. Data on supply in a market may be gathered in various ways:

- field inspection
- review of building permits (issued and acted upon), plat maps, and surveys of competitive sites
- interviews with developers and city planners
Level C Fundamental Demand Analysis
The distinguishing characteristic of Level C marketability studies is the analysis of fundamental forces of demand. That more detailed analysis may result in different conclusions from a Level B marketability study. In fact, the market area for a fundamental demand analysis usually differs from the competitive market area analyzed in a Level B study.

As an example, this section will outline the six-step process, including a forecast of fundamental demand, for an existing or proposed community shopping center at a specific site over a given period.

Property Productivity Analysis
Analysis of the legal, physical, and locational attributes of the subject property and the competitive shopping centers in or near the subject's trade area focuses on current industry (or market) standards. Retail properties can become outdated quickly as industry norms change. Particular attention is given to the following attributes of the subject site and improvements:

- land-to-building area ratio and availability of expansion land
- building area
- parking adequacy
- frontage, visibility, and depth
- topography
- utilities
- landscaping
- site design and layout
- accessibility
- amenities
- gross building area and gross leasable area
- store sizes
- store width and depth
- building design and layout
- signage
- service facilities and space

Tenant mix and related characteristics influence market appeal as well. Relevant legal characteristics of the subject property would include zoning and use restrictions, long-term store leases that affect the marketability of the property, and ground leases in place.

In a Level C study, an appraiser rates the physical and legal characteristics of the subject property and competitive properties against the market standard. The use of rating grids formalizes the comparison.

Market Delineation
The geographic market area relevant in a Level C marketability study may differ from the market area defined for a Level B study because the analysis of fundamental demand often requires a market area that aligns with the sources of specific data.

Effective analytical tools for defining the primary and secondary trade areas of a shopping center have been objects of study for many years. The most commonly used techniques include:

- trade area circles, in which preliminary trade area boundaries are adjusted for the specific geographic, demographic, and economic characteristics of the community
- gravitational models, a variation of trade area circles that takes into account the effects of competition
Highest and Best Use Analysis

The analysis of relevant data to develop a market value opinion requires two important steps in the valuation process before the applicable approaches to value are applied. Market analysis begins the process of narrowing the focus of the analysis from a broader macroeconomic view to data that is especially pertinent to the subject property. Highest and best use analysis relies on that analysis to then identify the most profitable, competitive use to which the subject property can be put.

An understanding of market behavior developed through market analysis is essential to the study of highest and best use, which is an economic concept. As explained in the previous chapter, market forces create the use, and the use affects market value. The interaction of market forces, therefore, is a key to identifying the highest and best. The highest and best use is shaped by the competitive forces within the market where the property is located, and it provides the support for a thorough investigation of the competitive position of the property in the minds of market participants.

The analysis of highest and best use can be thought of as the logical end of a spectrum of market analysis procedures, running from the macroeconomic overview of a general market study, through more detailed marketability studies and analyses of financial feasibility, to the formal analysis of highest and best use. Table 16.1 outlines the essential characteristics of the various types of analyses. All the analyses are interrelated.

Fundamentals of Highest and Best Use

The analysis of highest and best use is at the heart of appraisals of the market value of real property, but the concept has not always been well understood by practitioners and has long been a source of debate in the professional literature. The essential components of the analysis of highest and best use are contained in the following definition of the term:

The reasonably probable use of property that results in the highest value.

This simple definition will serve as a point of departure for examining the concept in the rest of this chapter.

To be reasonably probable, a use must meet certain conditions:

- The use must be **physically possible** (or it is reasonably probable to render it so).
- The use must be **legally permissible** (or it is reasonably probable to render it so).
- The use must be **financially feasible**.

Uses that meet the three criteria of reasonably probable uses are tested for economic **productivity**, and the reasonably probable use with the highest value is the highest and best use.
Figure 16.4  When an Alternative Use Is Not Financially Feasible

- Legally Permissible
  - Yes: Financially Feasible
    - Alternative Use Currently Financially Feasible (Market Indications All Positive)
      - Land Value > 0
      - Market Rent ≥ Feasibility Rent
      - Timing is Now
      - Present Value = User Value
    - Maximal Productive (Highest Relative Value Considering Risk)
    - Highest and Best Conclusions
      - Use
      - Timing
      - Market Participants
  - No: Financially Infeasible
    - Alternative Use Not Currently Financially Feasible (Market Indications Negative)
      - Land Value < 0
      - Market Rent < Feasibility Rent
      - Timing is Future (Marginal Demand Analysis)
      - Present Value = Investor Value
The Sales Comparison Approach

In the sales comparison approach, the appraiser develops an opinion of value by analyzing closed sales, listings, or pending sales of properties that are similar to the subject property. The comparative techniques of analysis applied in the sales comparison approach are fundamental to the valuation process. Estimates of market rent, expenses, land value, cost, depreciation, and other value parameters may be derived in the other approaches to value using comparative techniques. Similarly, in applying the sales comparison approach appraisers often analyze conclusions derived in the other approaches to determine the adjustments to be made to the sale prices of comparable properties.

In the sales comparison approach, an opinion of market value is developed by comparing properties similar to the subject property that have recently sold, are listed for sale, or are under contract (i.e., for which purchase offers and a deposit have been recently submitted). A major premise of the sales comparison approach is that an opinion of the market value of a property can be supported by studying the market’s reaction to comparable and competitive properties.

Substitution
The principle of substitution holds that the value of property tends to be set by the cost of acquiring a substitute or alternative property of similar utility and desirability within a reasonable amount of time.

Balance
The forces of supply and demand tend toward equilibrium, or balance, in the market, but absolute equilibrium is almost never attained. Due to shifts in population, purchasing power, and consumer tastes and preferences, demand varies greatly over time. The construction of new buildings, conversion of existing buildings to other uses, and demolition of old buildings cause supply to vary as well.

The principle of balance also holds that both the relationship between land and improvements and the relationship between a property and its environment must be in balance for a property to achieve its optimum market value. For example, a property that has too much land in relation to its improvements (known as an underimprovement) or too many expensive amenities for its location (known as an overimprovement) is out of balance. Appraisers must watch for imbalances in the market and within specific properties because those imbalances can cause the market to ascribe different prices to otherwise comparable properties. Overimprovements and underimprovements can lead to functional obsolescence that may need to be accounted for in sales comparison, income capitalization, and cost approach analyses, but differently in each approach.

Externalities
External forces affect all types of property in positive or negative ways. Periods of economic growth and economic decline influence property values. An appraiser analyzes the market area of the subject property to identify all significant external influences. To a great extent, the adjustments made to the sale prices of comparable properties for differences in location reflect these external forces. That is, two competitive properties with identical physical characteristics may have quite different market values if one of the properties has less attractive surroundings.

The condition and lighting of streets, the convenience of transportation facilities, the adequacy of police protection, the enforcement of municipal regulations, real estate tax burdens, and the proximity to shopping and restaurant facilities can all vary with location, making one location more or less attractive than another.

Market Analysis and Highest and Best Use
The conclusions of market analysis and highest and best use analysis are fundamental to the sales comparison approach. Analyzing the subject property’s highest and best use and market area helps appraisers identify and analyze the competitive supply and demand factors that influence value in the market. In addition, an adequately supported determination of the subject property’s highest and best use provides
The Income Capitalization Approach

Income-producing real estate is typically purchased as an investment, and from an investor's point of view earning power is the critical element affecting property value. One basic investment premise holds that the higher the earnings, the higher the value, provided the amount of risk remains constant. An investor who purchases income-producing real estate is essentially trading present dollars for the expectation of receiving future dollars. The income capitalization approach to value consists of methods, techniques, and mathematical procedures that an appraiser uses to analyze a property's capacity to generate benefits (i.e., usually the monetary benefits of income and reversion) and convert these benefits into an indication of present value.

The analysis of cost and sales data is often an integral part of the income capitalization approach, and capitalization techniques are frequently employed in the cost and sales comparison approaches as well. Capitalization techniques are commonly used to analyze and adjust sales data in the sales comparison approach. In the cost approach, obsolescence is often measured by capitalizing an estimated income loss. The income capitalization approach is described here as part of the systematic valuation process, but the various methods, techniques, and procedures used in the approach are analytical tools with broad applicability in the analysis and valuation of income-producing properties.

This chapter provides a broad overview of the income capitalization approach and discusses the principles and rationale on which it is based. Chapters 22 through 25 continue this discussion with detailed explanations of the specific methods, techniques, and procedures used to project and capitalize future benefits.

Relation to Appraisal Principles

Anticipation and Change

Anticipation is fundamental to the income capitalization approach. All income capitalization methods, techniques, and procedures forecast anticipated future benefits and estimate their present value. This may involve forecasting the anticipated future income from a property or estimating a capitalization rate that implicitly reflects the anticipated pattern of change in income over time.

The approach must also reflect how change affects the value of income-producing properties. To provide sound value indications, the appraiser must carefully address and forecast investors' expectations of changes in income levels, the expenses required to ensure income, and probable increases or decreases in property value. The defined income of a real estate investment may differ according to the type of investor. The ongoing securitization and globalization of real estate investments has brought new participants into the market. The income streams that investors in real estate investment trusts (REITs) and pension funds consider are different from the net incomes on which more traditional investors have focused. Furthermore, foreign investors may have distinctly different yield expectations and anticipated holding periods.

The capitalization process must reflect the possibility that actual future income, expenses, and property value may differ from those originally anticipated by an investor on the date of appraisal. The more uncertainty there is concerning the future levels of these variables, the riskier the investment. Investors expect to earn a higher rate of return on riskier investments. This should be reflected in the discount and capitalization rates obtained from market research.
The Cost Approach

Like the sales comparison and income capitalization approaches, the cost approach is based on market comparisons. In the cost approach, appraisers compare the cost of the subject improvements to the cost to develop similar improvements as evidenced by the cost of construction of substitute properties with the same utility as the subject property. The estimate of development cost is adjusted for market-extracted losses in value caused by the age, condition, and utility of the subject improvements or for locational problems. The land value is then added, usually based on comparison with sales of comparable sites. The sum of the value of the land and the improvements is adjusted for the rights included with the subject property again based on market comparisons.

The cost approach reflects market thinking because market participants relate value to cost. Buyers of real property tend to judge the value of an existing structure not only by considering the prices and rents of similar buildings, but also by comparing the cost to create a new building with optimal physical condition and functional utility. Moreover, buyers adjust the prices they are willing to pay by estimating the costs to bring an existing structure up to the physical condition and functional utility they need.

It is important to note that the cost approach is a theoretical breakdown of the property into land and building components. It is theoretical because market participants sell rights, not land and buildings. The breakdown into land and building components is important because it creates many issues that would not be relevant in the other approaches, where the land is not separated from the buildings. For example, the allocation of external obsolescence is an issue for the cost approach, but not for the income capitalization and sales comparison approaches.

To apply the cost approach, an appraiser estimates the market's perception of the difference between the property improvements being appraised and a newly constructed building with optimal utility (i.e., the ideal improvement identified in highest and best use analysis). In its classic form, the cost approach produces an opinion of the value of the fee simple estate. If the purpose of the appraisal is to estimate the value of an interest other than fee simple, an adjustment will be required. For example, a property rights adjustment could be made as a lump-sum adjustment at the end of the cost approach. This would be particularly important when the interest appraised is the leased fee encumbered by a long-term lease.

In applying the cost approach, an appraiser must distinguish between two cost bases—reproduction cost and replacement cost—and use one of the two consistently throughout the analysis. The market and physical condition of the appraised property usually suggest whether an exact replica of the subject property (reproduction cost) or a substitute property of comparable size and use (replacement cost) would be the basis of a more suitable comparison. The term modern equivalent asset is used in international valuation standards to describe an asset that provides "similar function and equivalent utility to the asset being valued" rather than a replica designed and constructed using current materials and techniques.

Appraisers estimate the cost to construct existing structures and site improvements (including direct costs, indirect costs, and an appropriate entrepreneurial incentive or profit) using one of three traditional techniques:

- the comparative-unit method
- the unit-in-place method
- the quantity survey method

Appraisers then deduct all depreciation in the property improvements from the cost of the new structure as of the effective appraisal date. (Outside the United States, the term depreciated replacement cost method is often used to describe the application of the cost approach in this manner.) The amount of depreciation present is estimated using one or more of three fundamental methods:

- the market extraction method
- the economic age-life method
- the breakdown method
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