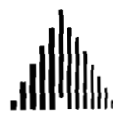


# **EXHIBIT 10**

# The Appraisal of Real Estate

Twelfth Edition



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the monetary amount that might be realized from its sale. Use value may vary depending on the management of the property and external conditions such as changes in business operations. For example, a manufacturing plant designed around a particular assembly process may have one use value before a major change in assembly technology and another use value afterward.

Real property may have a use value and a market value. An older factory that is still used by the original firm may have considerable use value to that firm but only a nominal market value for another use.

Use value appraisal assignments may be performed to value assets (including real property) for mergers, acquisitions, or security issues. This type of assignment is sometimes encountered in appraising industrial real estate when the existing business enterprises include real property.

Court decisions and specific statutes may also create the need for use value appraisals. For instance, many states require agricultural use appraisals of farmland for property tax purposes rather than opinions of value based on highest and best use. The current IRS regulation on estate taxes allows land under an interim agricultural use to be valued according to this alternative use even though the land has development potential.<sup>4</sup>

#### **Limited-Market and Special-Purpose Properties**

When appraising a type of property that is not commonly exchanged or rented, it may be difficult to determine whether an opinion of market value can be reasonably supported. Such limited-market properties can cause special problems for appraisers. A limited-market property is a property that has relatively few potential buyers at a particular time, sometimes because of unique design features or changing market conditions. Large manufacturing plants, railroad sidings, and research and development properties are examples of limited-market properties that typically appeal to relatively few potential purchasers.

Many limited-market properties include structures with unique designs, special construction materials, or layouts that restrict their utility to the use for which they were originally built. These properties usually have limited conversion potential and, consequently, are often called *special-purpose* or *special-design*

**use value:** The value of a property as it is currently used, not its value considering alternative uses; may be used where legislation has been enacted to preserve farmland, timberland, or other open space land on urban fringes, also known as *value in use*.

**limited-market property:** A property that has relatively few potential buyers at a particular time.

**special-purpose property:** A limited-market property with a unique physical design, special construction materials, or a layout that restricts its utility to the use for which it was built; also called *special-design property*.

4. The section on special use valuation in United States Estate (and Generation-Skipping Transfer) Tax Return (IRS Instructions for Form 706) states: "Under section 2032A, you may elect to value certain farm and closely held business real property at its farm or business use value rather than its fair market value. You may elect both special use valuation and alternate valuation."

*properties.* Examples of such properties include houses of worship, museums, schools, public buildings, and clubhouses.

Limited-market properties may be appraised based on their current use or the most likely alternative use. Due to the relatively small markets and lengthy market exposure needed to sell such properties, there may be little evidence to support an opinion of market value based on their current use. The distinction between market properties and limited-market properties is subject to the availability of relevant market data. If a market exists for a limited-market property, the appraiser must search diligently for whatever evidence of market value is available.

If a property's current use is so specialized that there is no demonstrable market for it but the use is viable and likely to continue, the appraiser may render an opinion of use value if the assignment reasonably permits a type of value other than market value. Such an estimate should not be confused with an opinion of market value. If no market can be demonstrated or if data is not available, the appraiser cannot develop an opinion of market value and should state so in the appraisal report. It is sometimes necessary to render an opinion of market value in these situations for legal purposes, however. In these cases, the appraiser must comply with the legal requirement, relying on personal judgment and whatever direct market evidence is available. Note that the type of value developed is not dictated by the property type, the size or viability of the market, or the ease with which that value can be developed; rather, the intended use of the appraisal determines the type of value to be developed. If the client needs a market value opinion, the appraiser must develop an opinion of market value, not use value.

### Investment Value

While use value focuses on the specific use of a property, investment value represents the value of a specific property to a particular investor. As used in appraisal assignments, investment value is the value of a property to a particular investor based on that person's (or entity's) investment requirements. In contrast to market value, investment value is value to an individual, not necessarily value in the marketplace.

Investment value reflects the subjective relationship between a particular investor and a given investment. It differs in concept from market value,

although investment value and market value indications sometimes may be similar. If the investor's requirements are typical of the market, investment value will be the same as market value.

When measured in dollars, investment value is the price an investor would pay for an investment in light of its

**investment value:** The specific value of a property to a particular investor or class of investors based on individual investment requirements; distinguished from market value, which is impersonal and detached.

usefulness of the sales comparison approach and when the properties to be appraised—e.g., single-family residences—are not amenable to valuation by the income capitalization approach. Because cost and market value are usually more closely related when properties are new, the cost approach is important in estimating the market value of new or relatively new construction. The approach is especially persuasive when land value is well supported and the improvements are new or suffer only minor depreciation and, therefore, approximate the highest and best use of the land as though vacant. The cost approach can also be applied to older properties given adequate data to measure depreciation.

The cost approach is also used to develop an opinion of market value (or use value, if the appraisal assignment allows for the development of a value other than market value) of proposed construction, special-purpose or specialty properties, and other properties that are not frequently exchanged in the market. Buyers of these properties often measure the price they will pay for an existing building against the cost to build minus depreciation or the cost to purchase an existing structure and make any necessary modifications. If comparable sales are not available, they cannot be analyzed to develop an opinion of the market value of such properties. Therefore, current market indications of depreciated cost or the costs to acquire and refurbish an existing building are the best reflections of market thinking and, thus, of market value (or use value).

When the physical characteristics of comparable properties differ significantly, the relative values of these characteristics can sometimes be identified more precisely with the cost approach than with sales comparison. Because the cost approach starts with the cost to construct a replica or a substitute property with optimal physical and functional utility, it can help an appraiser determine accurate adjustments for physical differences in comparable sale properties. If, for example, an appraiser must make an adjustment for inadequate elevators in a comparable property, the cost to cure the deficiency can be used as a basis for this adjustment. The cost approach provides the appraiser with data to use both in estimating depreciation and in deriving an adjustment to apply in the sales comparison approach.

The cost approach is **most applicable** in valuing new or proposed construction when the improvements represent the highest and best use of the land and land value is well supported.

Depending on the **purpose of the appraisal assignment**, the cost approach can be used to develop an opinion of the market value or use value of special-purpose properties and properties that are not frequently exchanged in the market.

The cost approach is especially useful when building additions or renovations are being considered. The approach can be used to estimate whether the cost of an improvement, including profit, will be recovered through an increased income stream or in the anticipated sale price; its use can help identify and prevent the construction of overimprovements.

Because the cost approach requires that land and improvements be valued separately, it is also useful in appraisals for

### Cost Index Trending

Cost manuals and electronic databases are updated periodically by including cost index tables that reflect changes in the cost of construction over a period of years.

Cost indexes convert a known cost as of a past date into a current cost estimate. Sometimes cost index tables can be used to adjust costs for different geographic areas. Cost index trending is also useful for estimating the current cost of one-of-a-kind items when standard costs are not available. However, there are practical limitations in applying this procedure because, as the time span increases, the reliability of the current cost indication tends to decrease.

As an example of cost index trending, assume the contract cost for constructing a building in January 1994 was \$1,000,000. The index for January 1994 is 285.1 and the current index is 327.3. To trend the historical cost into a current cost, the current cost index is divided by the historical cost index and the result is multiplied by the historical cost. In this case the current cost is calculated as follows:

$$\begin{aligned} 327.3 \div 285.1 &= 1.148 \\ 1.148 \times \$1,000,000 &= \$1,148,000 \end{aligned}$$

Problems can arise when cost index data is used to estimate current cost. The accuracy of the figures cannot always be ascertained, especially when it is not clear which components are included in the data (i.e., only direct costs or direct costs and some indirect costs). Furthermore, historical costs may not be typical for the time period, and the construction methods used at the time of the historical cost may differ from those used on the effective appraisal date. Although cost index trending may be helpful in confirming a current cost estimate, it is not a reliable substitute for the cost-estimating methods described in the following section.

### Cost-Estimating Methods

The three traditional cost-estimating methods are

1. The comparative-unit method
2. The unit-in-place method
3. The quantity survey method

The quantity survey method produces a cost estimate based on a detailed inventory of the labor, materials, and equipment used in the subject improvements. The comparative-unit and the unit-in-place methods provide less detail, but they are the primary bases for the cost estimates used in most appraisals.

**Cost index trending** may be used to convert historical data into a current cost estimate.

Building costs may be estimated using one of **three methods**: the comparative-unit method, the unit-in-place method, or the quantity survey method.



### Procedure

To apply the sales comparison approach, an appraiser follows a systematic procedure:

1. Research the competitive market for information on sales transactions, listings, and offers to purchase or sell involving properties that are similar to the subject property in terms of characteristics such as property type, date of sale, size, physical condition, location, and land use constraints. The goal is to find a set of comparable sales as similar as possible to the subject property.
2. Verify the information by confirming that the data obtained is factually accurate and that the transactions reflect arm's-length market considerations. Verification may elicit additional information about the market.
3. Select relevant units of comparison (e.g., price per acre, price per square foot, price per front foot) and develop a comparative analysis for each unit. The goal here is to define and identify a unit of comparison that explains market behavior.
4. Look for differences between the comparable sale properties and the subject property using the elements of comparison. Then adjust the price of each sale property to reflect how it differs from the subject property or eliminate that property as a comparable. This step typically involves using the most comparable sale properties and then adjusting for any remaining differences.
5. Reconcile the various value indications produced from the analysis of comparables into a single value indication or a range of values.

### Researching Transactional Data

In the first step of the sales comparison approach, an appraiser gathers data on sales, contracts, offers, refusals, options, and listings of properties considered competitive with, and comparable to, the subject property. Data from completed transactions is considered the most reliable value indicator. First, the appraiser thoroughly researches the prices, real property rights conveyed, financing terms, motivations of buyers and sellers, dates of the property transactions, and any expenditures made immediately after the purchase. Then details on each property's location, physical and functional condition, economic characteristics, use, and non-realty components of value must be considered. Because conclusions must be market-derived, the appraiser will rely heavily on interviews, personal contacts, and proprietary research.

Most appraisers maintain data files with the details of market transactions and add information as new transactions occur. Potential sources of sales data are many and varied. Primary sources include



- Courthouse records
- Government sales tax records
- Commercially available data from electronic reporting, multiple listing, and subscription services
- Real estate periodicals
- Interviews with the parties to transactions, their employees, attorneys, appraisers, counselors, brokers, property managers, and lenders.

To apply the sales comparison approach, the appraiser first **gathers data** from sales, contracts, offers, refusals, and listings of competitive properties. Sources of this information include public records, multiple listing services, subscription services, real estate brokers, real estate periodicals, and interviews with the parties involved in market transactions.

Assessment data should generally not be used to develop an opinion of market value. Budgetary and time constraints on the public agencies responsible for collecting and maintaining assessment data can cast doubt on the accuracy of that data.

The geographic limits of the appraiser's search for sales data depend on the nature and type of real estate being valued and available sales information. Certain types of properties have regional, national, and even international markets. Market boundaries are defined by the area potential buyers would consider for alternative properties and the character of the property being appraised. If similar properties are commonly bought and sold in the same market area as the subject property, the search will probably be relatively confined. However, appraisers must sometimes extend the area of their searches to other, similar market areas. For example, little comparable data may be found for the first property to be renovated in an area of deteriorated buildings or for the only property of a given type in a market area. In situations of those sorts, the appraiser must establish the comparability of the other areas and the competitiveness of the properties with the subject. To estimate the values of regional shopping malls, large office buildings, resort hotels, large multiuse complexes, and large industrial properties, for example, appraisers may gather data from a wide geographic area within which the competitive properties are located.

### Verifying Transactional Data

Appraisers should verify information to ensure its accuracy and to gain insight into the motivation behind each transaction. The buyer's view of what was being purchased at the time of sale is very important. Sales that are not arm's-length market transactions (in accordance with the definition of *market value* used in the appraisal) should be identified and used with caution. To verify sales data an appraiser confirms statements of fact with the principals to the transaction, if possible, or with the brokers, closing agents, or lenders involved. Owners and tenants of neighbor-

**arm's-length transaction:** A transaction between unrelated parties under no duress.

on the appraisal problem and nature of the property, as illustrated in Table 17.1.

Units of comparison are used to facilitate comparison of the subject and comparable properties. Converting sale prices to size-related unit prices usually eliminates the need to make adjustments for size differences. Differences in size are considered in reconciliation, and the unit (or units) of comparison selected can have a significant bearing on the reconciliation of value indications in this approach. It may sometimes be necessary to adjust for differences in economies of scale. Even if all other property characteristics appear similar, a sale property that is substantially larger or smaller than the subject property may not be a particularly meaningful comparable because the per unit price of the larger property may be lowered by economies of scale. As much as possible, appraisers should try to select comparables in the same size range as the subject so that economies of scale do not enter into the process.

**units of comparison:** The components into which a property may be divided for purposes of comparison, e.g., price per square foot, front foot, cubic foot, room, bed, seat, apartment unit.

### Analyzing and Adjusting Comparable Sales

Ideally, if all comparable properties are identical to the subject property, no adjustments would be required. However, this is rarely the case, especially for nonresidential properties. In this step of the analysis the appraiser adjusts for any differences.

After sales information has been collected and confirmed, it can be organized in a variety of ways. One convenient and commonly used method is to arrange the data on a market data grid. Each important difference between the comparable properties and the subject property that could affect property value is considered an element of comparison. Each element is assigned a row on the grid, and total property prices or unit prices of the comparables are adjusted to reflect the value of these differences. The process is a way for appraisers to model typical buyer actions and to analyze sales data to quantify the impact of certain characteristics on value. (A sample market data grid and the procedures used to make adjustments on such a grid are presented in the next chapter.)

A sale price reflects many different factors that affect a property's value in varying degrees. Qualitative and quantitative techniques are employed to estimate the relative significance of these factors. Appraisers employ mathematical applications to derive quantitative adjustments. When sufficient data to support a quantitative adjustment is not available, appraisers investigate qualitative relationships through direct comparison of market data and analysis of market trends.

Adjustments can be made either to total property prices or to appropriate units of comparison. Often adjustments for property rights conveyed, financing, conditions of sale (motivation), date of sale (market conditions), and expenditures made immediately after purchase are made to the total sale price. The adjusted

**elements of comparison:** The characteristics or attributes of properties and transactions that help explain the variance of prices paid for real estate; include real property rights conveyed, financing terms, conditions of sale, market conditions, expenditures made immediately after purchase, location, physical characteristics, and other characteristics such as economic characteristics, use, and non-realty components of value.

price is then converted into a unit price and adjusted for other elements of comparison such as location and physical characteristics.

### **Elements of Comparison**

Elements of comparison are the characteristics of properties and transactions that help explain the variance of prices paid for real estate. The appraiser determines the elements of comparison for a given appraisal through market research and supports those conclusions with market data. When properly identified, the

elements of comparison describe the factors that are associated with prices paid for competing properties.

There are 10 basic elements of comparison that should be considered in sales comparison analysis:

1. Real property rights conveyed
2. Financing terms
3. Conditions of sale
4. Expenditures made immediately after purchase
5. Market conditions (time)
6. Location
7. Physical characteristics—e.g., size, construction quality, condition
8. Economic characteristics—e.g., expense ratios, lease provisions, management, tenant mix
9. Use (zoning)
10. Non-realty components of value

In most cases these elements of comparison cover all the significant factors to be considered, but on occasion additional elements may be relevant. Other possible elements of comparison include governmental restrictions such as conservation or preservation easements and water and riparian rights, access to the property, and off-site improvements required for the development of a vacant site. Often a basic element of comparison is broken down into subcategories that specifically address the property factor being analyzed. For example, physical characteristics may be broken down into subcategories for age, condition, size, and so on. (Adjustment techniques applicable to each of the 10 standard elements of comparison are discussed in Chapter 18 and illustrated with examples in Chapter 19.)

Sales adjustment processes require a sufficient number of sales from which to extract the adjustments. Often there may not be enough sales to provide a basis for all adjustment calculations. The appraiser should recognize and explain in the appraisal report that a lack of supporting data may either

reduce the validity of the adjustments made or eliminate the possibility of applying any direct sales adjustment process. When these conditions exist, the appraiser distinguishes any adjustments that are made as explanatory or judgment factors from those that are drawn from market data. In such situations appraisers commonly look to a broader array of market sales for bracketing and indirect market support.

Larger databases may allow for more detailed study and greater understanding of the value influence of differences between properties such as zoning or location, but a sheer volume of data is not an implicit indication of quality or reliability of an appraiser's conclusions. The larger the data set, the more responsibility the appraiser has to understand and properly apply the various forms of statistical analysis that may be appropriate for appraisal analysis. However, statistical results such as averages should not be misinterpreted as, or substituted for, a full understanding of market behavior.

### **Identification and Measurement of Adjustments**

Comparative analysis includes the consideration of both quantitative and qualitative factors. Quantitative adjustments are developed as either dollar or percentage amounts. Factors that cannot be quantified are dealt with in qualitative analysis. Various techniques used in quantitative adjustments and qualitative analyses are shown in Table 17.2 and are discussed more fully in the following chapter.

**Quantitative adjustment techniques** include paired data analysis, grouped data analysis, secondary data analysis, statistical analysis, graphic analysis, trend analysis, cost analysis, direct comparisons, and capitalization of income differences.

**Qualitative analysis** includes relative comparison analysis, ranking analysis, and personal interviews. Both quantitative and qualitative techniques are employed in comparative analysis.

**Table 17.2 Techniques Used in Quantitative and Qualitative Analysis**

#### **Quantitative Analysis**

- Paired data analysis (sales and resales of the same or similar properties)
- Grouped data analysis
- Secondary data analysis
- Statistical analysis
- Graphic analysis
- Trend analysis
- Cost analysis (cost-to-cure, depreciated cost)
- Direct comparisons
- Capitalization of income differences

#### **Qualitative Analysis**

- Relative comparison analysis
- Ranking analysis
- Personal interviews

Direct capitalization is a method used in the income capitalization approach to convert a single year's income expectancy into a value indication. This conversion is accomplished in one step, either by dividing the income estimate by an appropriate income rate or by multiplying it by an appropriate income factor.

Direct capitalization is widely used when properties are already operating on a stabilized basis and there is an ample supply of comparable sales with similar risk levels, incomes, expenses, physical and locational characteristics, and future expectations. This methodology may be less useful for properties going through an initial lease-up or when income and/or expenses are expected to change in an irregular pattern over time. Comparables with similar future expectations may not be available in these cases and one of the yield capitalization techniques may be more appropriate. The advantages of direct capitalization are that it is simple to use, easy to explain, often expresses market thinking, and provides strong market evidence of value when adequate sales are available.

Direct capitalization is divided into two basic methodologies:

- Applying an overall capitalization rate to relate value to the entire property income (i.e., net operating income)
- Using residual techniques that consider components of a property's income and the use of market-derived capitalization rates for each component analyzed

Direct capitalization is distinct from yield capitalization, which is discussed in Chapters 23 and 24, in that the former does not directly consider the individual cash flows beyond the first year. Although yield capitalization explicitly calculates year-by-year effects of potentially changing income patterns, changes in the original investment's value, and other considerations, direct capitalization processes a single year's income into an indication of value. Either direct capitalization or yield capitalization may correctly produce a

The **basic formulas** for direct capitalization are:

$$I = R \times V \quad R = I / V \quad V = I / R$$

$$V = I \times F \quad I = V / F \quad F = V / I$$

where  $I$  is income,  $R$  is capitalization rate,  $V$  is value, and  $F$  is factor.

#### **direct capitalization**

1. A method used to convert an estimate of a single year's income expectancy into an indication of value in one direct step, either by dividing the income estimate by an appropriate rate or by multiplying the income estimate by an appropriate factor.
2. A capitalization technique that employs capitalization rates and multipliers extracted from sales. Only the first year's income is considered. Yield and value change are implied but not identified.