

STUDY GUIDE

RESIDENTIAL SALES COMPARISON AND INCOME APPROACHES

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NOTE:

Unless otherwise noted, all definitions provided in this study guide are from *The Dictionary of Real Estate Appraisal Sixth Edition*, Appraisal Institute, Chicago IL (2015)

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CHAPTER I

The **sales comparison approach** is defined as:

"The process of deriving a value indication for the subject property by comparing market information for similar properties with the property being appraised, identifying appropriate units of comparison, and making qualitative comparisons with or quantitative adjustments to the sale prices (or unit prices, as appropriate) of the comparable properties based on relevant, market-derived elements of comparison. The sales comparison approach may be used to value improved properties, vacant land, or land being considered as though vacant when an adequate supply of comparable sales is available."

Elements of comparison that are considered in the sales comparison approach include:

- Sales or financing concessions
- Market conditions when sale occurred
- Location
- Property rights appraised
- Site characteristics
- Physical characteristics of structures
- Quality
- Functional attributes
- Amenities
- Motivations of sellers and buyers

The sales comparison approach is the most commonly used approach for appraising residential properties. It may also be used for commercial and industrial properties. Traditionally, appraisers provide three comparables, but some clients request additional sales.

Valuations derived from the sales comparison approach are most credible when there are many similar properties nearby (such as in a subdivision), and the properties are bought and sold on a regular basis. The approach also does not work well in a very weak market, or when few transactions are available to provide comparable data.

There are many situations when the sales comparison approach might not be the best way to find an indicated value. Examples would be unusual or special-use properties like historic homes, one-of-a-kind designs, homes that are unusually large or small, or other factors that make comparison difficult.

This approach relies heavily on the **principle of substitution**. This is defined as:

"The appraisal principle that states that when several similar or commensurate commodities, goods, or services are available, the one with the lowest price will attract the greatest demand and widest distribution. This is the primary principle upon which the cost and sales comparison approaches are based."

The principle of contribution is also important in the sales comparison approach. The **principle of contribution** is defined as

- "1. The amount a component of a property adds to the total value of the property. Contribution may or may not be equivalent to the cost to add the component.*
- 2. The concept that the value of a particular component is measured in terms of the amount it adds to the value of the whole property or as the amount that its absence would detract from the value of the whole".*

The principle of contribution is used when determining how much to adjust for differences between various components of a property. Other valuation principles are also used in the sales comparison approach, including **change, anticipation, supply and demand, competition, balance, and conformity**.

The basic formula for the sales comparison approach is:

$$\begin{array}{|c|} \hline \text{Sales price} \\ \text{of} \\ \text{comparable} \\ \hline \end{array} \quad \begin{array}{c} + \\ - \end{array} \quad \begin{array}{|c|} \hline \text{Adjustments} \\ \text{to Price} \\ \hline \end{array} \quad = \quad \begin{array}{|c|} \hline \text{Indicated Value} \\ \text{of Subject} \\ \hline \end{array}$$

Notice that the process **starts with the comparable**, not the subject! We never adjust the subject property. We make adjustments to a comparable sale to show what the comparable would have sold for if it were just like the subject.

In applying the sales comparison approach, the appraiser should employ a systematic approach:

1. Research the market
2. Verify the information
3. Select relevant units of comparison
4. Identify differences and make adjustments
5. Reconcile the value indications

CHAPTER 2

Comparable sales are ones that would be truly comparable or competitive in the minds of a typical purchaser. An appraiser should think: If a buyer would consider purchasing the subject property, what other properties would be possible alternatives?

Appraisers must identify the boundaries of the subject's market area, in order to locate appropriate comparables. A **market area** is defined as:

"The geographic region from which a majority of demand comes and in which the majority of competition is located. Depending on the market, a market area may be further subdivided into components such as primary, secondary, and tertiary market areas, or the competitive market area may be distinguished from the general market area."

When possible, comparables should be selected from the same market area.

Before completing the sales comparison approach, an appraiser needs to collect:

- General data about trends affecting the neighborhood, city, region and nation
- Specific data about the subject and its improvements
- Specific data about the comparables to be used for valuation

When collecting data, the appraiser looks for information on:

- Recent sales
- Listings of comparables
- Contracted or pending sales
- Offers / refusals / options

For each comparable transaction, the appraiser will need to collect data on the purchase price, property rights conveyed, date of the transaction, financing terms, motivations of both buyers and sellers, and any other special concessions or features of the sale.

In most areas today multiple listing services provide the best source of information on residential sales. The vast majority of the MLS systems today are computerized, and the data is updated in real time. Appraisers may perform searches according to specified parameters. Remember, however, that the information is compiled for the convenience and use of the sales agent members and the information

is configured for their purposes. If MLS information can be verified through a conversation with a listing agent or selling agent, its usefulness can be increased dramatically.

Besides MLS, there are other sources of comparable data that appraisers may use, including data subscription services, real estate agents, other appraisers, assessor and courthouse records, and online sources.

Verification is an important part of the sales comparison approach. As you are collecting data, you will want to verify that it is reliable. It is important to verify both the details of the transaction and the details of the property (physical characteristics). Appraisers must verify that transactions can be considered "arm's length", i.e., the transaction was made in an open market over a reasonable amount of time, between unrelated parties, neither of whom was under duress to buy or sell, with typical financing, and both buyer and seller were aware of any defects.

In the sales comparison approach, most appraisers organize their data in a systematic fashion by putting it all into a "grid" - a chart that compares the subject and comparables using identified elements of comparison. This makes it easy to see the differences and adjust for them.

CHAPTER 3

The sales comparison approach is based on comparative analysis. Other similar properties are compared to the subject property they are used as a guide to lead us to an opinion of the value of the subject property.

Comparative analysis is defined as:

"The process by which a value indication is derived in the sales comparison approach. Comparative analysis may employ quantitative or qualitative techniques, either separately or in combination."

- **Quantitative** analysis is based on numbers and results in either dollar or percentage amounts.
- **Qualitative** analysis is used for elements that cannot be given a numerical value.

Quantitative analysis usually forms the basis of your opinion. You use math to quantify adjustments to the comparable sales to indicate a value for the subject. Sometimes you will not have enough valid comparables to base everything on quantitative analysis. In these cases, you will rely more heavily on qualitative analysis, selecting a value for your subject based on the subject being superior or inferior to a particular comparable.

Quantitative adjustments and qualitative analysis can both be used in the same appraisal. If that is the case, the quantitative adjustments are usually performed first.

There are various techniques appraisers may employ when using quantitative adjustments. They include:

- Paired data analysis
- Statistical analysis
- Graphic analysis
- Cost analysis
- Trend analysis
- Capitalization of rent differences

Qualitative analysis techniques include:

- Relative comparison analysis
- Personal interviews
- Ranking analysis

CHAPTER 4

Adjustments that are derived with quantitative approaches can be applied to a comparable property in one of two ways: dollar amounts or percentage amounts. Making adjustments in dollars is usually preferable in the appraisal of one- to four-unit residential properties.

The choice of method will depend upon the way the adjustments are derived. For example, market conditions adjustments are typically expressed in terms of a percent change. Percentage adjustments are often converted into dollar amounts when the math is being processed in the sales comparison approach grid.

Adjustments only need to be made (and should be made) when there is a significant, measurable difference between the subject property and a comparable sale. The difference needs to be significant enough so that a typical purchaser would recognize it and take it into consideration in the buying decision.

The sequence of adjustments that is illustrated in *The Dictionary of Real Estate Appraisal, 15th Edition* (Appraisal Institute, Chicago, 2020) is:

1. Property rights conveyed
2. Financing terms/cash equivalency
3. Conditions of sale
4. Expenditures made immediately after purchase
5. Market conditions
6. Location
7. Physical characteristics
8. Economic characteristics
9. Use/zoning
10. Non-realty components of value

The last three adjustments in the list are usually only made in the appraisal of income-producing properties.

In the URAR adjustment grid, the adjustment factors are presented in a slightly different sequence:

1. Sale or financing concessions
2. Date of sale/time
3. Location
4. Property rights
5. Physical characteristics

When valuing property rights, appraisers may encounter many kinds of partial interests. Some are specific forms of ownership that are created by special situations. These would include:

- Life interests
- Leased fee interests
- Leasehold interests

Leased fee interest is defined as:

"The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires."

This is the property owner's interest (i.e., landlord's interest) in a property that is leased.

Leasehold interest is defined as:

"The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease."

If a house or land is leased at the time of sale, the value of the leasehold may be calculated separately from the leased fee ownership of the property itself. The appraiser would account for the terms and also factor in the length of time remaining on the lease.

Even though the owner of a leasehold interest has no real fee interest, a leasehold interest may have value if the contract rent stipulated in a lease is less than the property's market rent.

Other times, partial interests are created when some part of the fee simple estate is taken away by easements or encroachments.

An **easement** is defined as

"The right to use another's land for a stated purpose."

Under the rights of an easement, someone else is allowed to enter a property and therefore the owner has relinquished the exclusive right to occupy and use the property. This creates a partial interest or diminished estate.

Sometimes an easement does not permit someone else to enter or use a property, but it does prohibit the property owner from doing what he or she wants to do with the property. Examples of this are conservation easements and historic preservation easements.

A negative **easement** is defined as

"An easement preventing a property owner from certain, otherwise permitted, uses of his or her land, e.g., agreeing not to do something such as building a wall or fence blocking an adjoining property's view."

Property may also be concurrently owned by more than one individual. **Concurrent ownership** includes forms of ownership such as:

- Tenancy in common
- Joint tenancy
- Tenancy by the entirety

In tenancy in common, ownership interests may be unequal and may pass to the owner's heirs if he or she dies. In joint tenancy, ownership shares must be equal, and when one tenant dies, his or her share passes to the other tenants. Tenancy by the entirety is a type of joint tenancy that is reserved for married couples.

Generally, when valuing partial interests, the value of a partial interest is less than the pro rata share of a fee simple interest. For example, the value of a $\frac{1}{4}$ interest in a property may be considerably less than $\frac{1}{4}$ of the value of the whole.

Minority ownership interests have limited market appeal. Therefore, the value of the partial interest might have to be discounted to attract a potential purchaser.

CHAPTER 5

Adjustments are often necessary for financing terms and/or seller concessions.

When we make adjustments for financing in a market value appraisal, we adjust the financing of the comparable sales to market financing.

Most real property purchases in the United States involve mortgage money. At closing, the seller receives cash, just as he or she would in an all-cash transaction. This is referred to in the definition of market value as “terms equivalent to cash.” Sometimes, though, favorable financing terms are offered which affect the sale price.

Many years ago, mortgage assumptions were common, in which the buyer of a property would assume the seller’s mortgage. These still exist, but they are uncommon. Most mortgages and trust deeds now include “due-on-sale” clauses requiring that the loan be repaid in full if the property is sold. This provision is also referred to as an **alienation clause**.

Sometimes properties are purchased with a land contract, which is a type of seller financing. If the terms of this financing are favorable, and they affected the sale price of the property, an adjustment would be required when using this property as a comparable sale in the sales comparison approach.

Sale concessions usually are a one-time charge that can affect the sale price as well. In a slow market or with a seller who is anxious to make a deal, various sale concessions may be employed. For example, a seller may agree to pay discount points for the buyer or to pay some or all the buyer’s closing costs.

As an example, let’s assume that the negotiated price was \$100,000 and the buyer and seller are both content with that price. The seller needs some cash to pay the closing costs. To make the deal work, the contract might be amended to read \$103,000 and the seller would agree to rebate the three points to the buyer at the closing as a sale concession. If you investigated this transaction and intended to use it as a comparable sale, you could make a \$3,000 adjustment in the sales comparison grid for cash equivalency. This means that it really was a \$100,000 sale plus a \$3,000 sale concession. If the normal type of financing in that market area is conventional, then the sale price of the property under a conventional loan would have been \$100,000.

What do you do if you come across a comparable property that sold with non-market financing? Your first step will be to determine whether the financing had any impact on the sale price. The best way to do this is by looking at other comparables to see how the market reacted. If the price paid is similar to what other properties with “typical” financing sold for, you might not need to make any adjustments.

A mathematical formula may not be the best way to derive cash equivalency values. Use your professional judgment and verify with market research.

Fannie Mae instructs appraisers to make adjustments for financing concessions based on how much the financing concession affected the sale price of the property. Fannie Mae also says that the adjustment should not be based on how common sales concessions are in a particular market. For example, if it is common in a particular market for sellers to pay 6% of the property sale price in closing costs, some appraisers will not make adjustments for sales concessions of 6% or less. This is incorrect, according to Fannie Mae. It does not matter how common or typical the concessions are. The appraiser should still make the adjustment to reflect the effect of the concession on the sale price.

CHAPTER 6

In the sales comparison approach, it is also possible that an appraiser may need to make adjustments for conditions of sale, expenditures made immediately after purchase, and/or market conditions.

The definition of market value assumes certain conditions that are common to an arm's length transaction.

Arm's-length transaction is defined as:

"A transaction between unrelated parties who are each acting in his or her own best interest."

If an appraiser discovers a comparable sale is not an arm's length transaction, he or she has two choices:

1. Throw it out as an atypical sale and find another comparable that is arm's length; or
2. Use it and adjust it for conditions of sale.

Not using it is generally the best course of action, but sometimes an appraiser has little or no choice because of a lack of sales data.

If an appraiser makes an adjustment for conditions of sale, the adjustment should reflect what the property would have sold for under normal conditions.

The definition of **expenditures made immediately after purchase** is:

"An element of comparison in the sales comparison approach; comparable properties can be adjusted for any additional investment (e.g., curing deferred maintenance) that the buyer needed to make immediately after purchase for the properties to have similar utility to the subject property being valued."

Here is an example. A property is listed for \$95,000 and is to be sold "as is." Let us assume that it will cost \$5,000 to replace the roof. The purchaser might offer \$90,000 for the property knowing full well that as soon as they buy the property, they will have to spend \$5,000 to make it livable. In that case an adjustment should be made for the \$5,000 that the purchaser will be obligated to spend. This assumes that most comparable houses would have an adequate roof.

This adjustment is based, not on the actual cost of the repair, but what the buyer anticipated the repair cost would be. In the example above, if the buyer replaced the roof after purchase and found hidden structural damage that resulted in the cost of the project increasing to \$10,000, the adjustment would still be \$5,000. This is because the buyer made the purchase decision believing that \$5,000 would be the cost of the repair, and the purchase price was based on that figure.

Another adjustment in the sequence of adjustments is an adjustment for a change in market conditions. This has historically been referred to as a "time adjustment" but the correct terminology is **market conditions adjustment**.

The definition of **market conditions** is:

"An element of comparison in the sales comparison approach; comparable properties can be adjusted for differences in the points in the real estate cycle at which the transactions occur. Sometimes called a time adjustment because the differences in dates of sale are often compared, although that usage can be misleading because property values do not change merely as the result of the passage of time."

Changes in a real estate market may be:

- *Cyclical* - rising and falling with the fates of the local industries (aerospace, defense, etc.) that go through big hiring phases followed by layoffs
- *One-time only* - related to an event, either good or bad, which is unlikely to reoccur
- *Seasonal* - in a resort town, real estate purchases may occur within a narrow three-month window of opportunity
- *Exponential* - continuously increasing at a rapid rate, such as was experienced between 2002 and 2006 in the fast-growing parts of California, Nevada, or Florida

Market areas typically go through four distinct phases:

1. *Growth* - Lots of new construction and development activity, speedy sales, increasing prices, a "seller's market"
2. *Stability* - Slowing down of new construction, prices remain steady and high, excitement is cooling
3. *Decline* - Prices start to fall, new construction halts, more existing homes flood the market creating a "buyer's market"
4. *Revitalization* - Prices have bottomed, sales stagnate, and hopefully the area receives new interest and renewal

Sometimes market conditions adjustments are relatively straightforward and easy to extract. As an example, let's say a house sold 14 months ago in an arm's-length transaction for \$160,000. The same house sold again two months ago for \$176,000. Your research shows that no major improvements were made to account for the increase in value and that this was also an arm's-length sale. Because both sales were for the same piece of property, and the sales occurred at the same time of the year, you could logically conclude that values have gone up by 10 percent ($\$176,000 - \$160,000 = \$16,000 \div \$160,000 = 0.10$).

This is called a sale and re-sale comparison. It provides the best data for a market conditions adjustment. It represents the perfect paired data analysis - two sales with only one significant difference.

Other evidence of trends may be found in group sales. You might not be fortunate enough to find an exact sale and resale of the same property, however you may have abundant evidence that properties of a certain class, perhaps similar models in a subdivision, sold six months ago for \$300,000 and now are selling generally for \$320,000.

Remember, the market conditions adjustment is to be used to make a comparable sale "similar to" the subject in your appraisal. You are making the comparable sale "similar to" your subject in respect to the **sale date** of the comparable. You are making it "similar to" the effective date of your appraisal date of value. So, the adjustment to the comparable sale will **effectively move the sale date of the comparable** to the effective date of your appraisal. When you have done that, you have an effective sale price of the comparable to which you can apply the other elements of comparison.

Market conditions adjustments to comparables should always be calculated from the time of the **contract of the sale** to the **effective date of the appraisal**. When sales are negotiated and consummated, the resulting price reflects the economic conditions, supply and demand factors, financing options available etc., at that point in time. That point is called the "meeting of the minds" of the buyer and seller.

CHAPTER 7

Property values are influenced by four main categories of external market forces: **social**, **economic**, **governmental**, and **environmental**. They are not clear cut; they overlap and interact with each other in varying combinations.

Each parcel of real property is unique in location and is impacted by the combination of market factors that intersect at that point. Before we can start analyzing individual factors in their particular facts, we must identify the area of influence.

For residential properties, the neighborhood has been the traditional unit of comparison or demarcation. Thirty years ago, a neighborhood was defined as an area in which there was a homogeneity, or sameness, of properties. This homogeneity included such factors as age of houses, style of houses, functional utility, size, etc. The current definition of a neighborhood is more realistic and talks about an area where there is a congruent grouping of a people, buildings and business uses.

Market area is a more recent term that has become the preferred terminology for several reasons.

- It is a broader terminology that avoids the somewhat confusing definitions of the other two terms (neighborhood and district)
- You can include both neighborhoods and districts; or a combination thereof
- Market area concentrates more on where people live and work
- Market area focuses on competition and defines itself by looking at reactions of typical buyers and sellers for that type of property

A market area is an area in which other properties effectively compete for the favors of a potential buyer. There are no hard and fast rules. A market area does not necessarily coincide with a town, village, subdivision, or other designated or mapped area.

Here is a procedure for establishing market area boundaries:

1. Visit the immediate subject area and do a preliminary assessment of its features and condition. Study the factors that attract people to the community. Look for major employers, universities, shopping centers, natural resources, recreational and cultural facilities, and so on.
2. Drive or walk around the surrounding area and notice the physical characteristics such as use, age and condition of other properties. Note on a map where conditions start to change. Often changes occur at a river, railroad track, highway, or even where street names change from Northeast to Southeast or a zip code changes.

3. Sketch likely neighborhood boundaries on your map to create an initial sketch of areas of influence.
4. Test your hypothesis with demographic data. This can be information from a census, chamber of commerce, online service, or real estate sales database. Other sources might include real estate salespeople and other appraisers.

Whenever possible, your comparables should be in the same market area as your subject. If they are subject to the same market forces, it makes one less thing you must worry about and takes away an adjustment you might have to make for differences in location.

Location has historically been rated as:

- Poor
- Fair
- Average
- Good
- Very Good
- Excellent

The above ratings could be used as descriptors for several the factors that appraisers consider. We must make that call and encapsulate all the positive and negative factors that apply to our subject property. The protocols of the Uniform Appraisal Dataset, (UAD) require appraisers to rate locations as Beneficial (B), Neutral (N), or Adverse (A), and provide a descriptive factor (e.g., Res, Ind, Comm, BsyRd, etc.). Remember that the UAD protocols only apply to single-unit appraisals performed for secondary market mortgage lending purposes.

CHAPTER 8

Physical characteristics that may require adjustment in a residential real property appraisal include:

- Site and view
- Quality
- Condition versus age
- Counting rooms
- Square footage
- Basements
- Energy efficiency items
- Garages and carports
- Appliances
- Porches, decks, and other structures

We may find sales of comparable properties that are very similar except for a difference in site size and can then extract the value attributable to difference in site size through a paired analysis. An adjustment may need to be made to reflect the contributory value of having a larger site. In some markets, this may be significant and in other markets it may make little, if any, difference in the overall value of the property.

Views may vary greatly, so it is not always easy to attribute a value to a view. Do your analysis carefully, because a view may be worth a great deal. If a substantial adjustment is necessary, it requires an explanation. In the comments of the sales comparison approach or in the addendum, go into detail about this view. Be sure to include photographs as well. The same goes for the situation in which there is a negative factor attributable to a view.

Appraisers make adjustments for design and style infrequently, and even then; only for cases when a property is significantly different from comparables and its neighbors. These adjustments can be hard to separate out from other measures such as quality.

Quality of construction is one of the most comprehensive factors that requires consideration of many individual components when comparing properties. You must develop a keen eye for quality. Become familiar with the products of the predominant contractors in your area and see how they weather the test of time. Soon you will be able to distinguish fine details and will know where to look for evidence of future problems in construction.

Quality is determined by both the **materials** used and the **construction practices** used during the building process.

The protocols of the Uniform Appraisal Dataset (UAD) require appraisers to rate construction quality on a scale from Q1 (best) through Q6 (worst). Please note that if you are writing a narrative report, you would not use the UAD reporting protocols. Marshall & Swift recognizes the following categories of quality in construction:

- Low
- Fair
- Average
- Good
- Very good
- Excellent

The six Marshall & Swift ratings do not correspond with the UAD ratings of Q1 through Q6.

Small differences in chronological age do not usually affect value significantly. For example, the market may not differentiate between a house that is 35 years old and a house that is 40 years old. There are times, though, when age adjustments are necessary.

Adjustments may be based on the actual (chronological) age or the effective age of a structure. **Effective age** is defined as:

"The age of property that is based on the amount of observed deterioration and obsolescence it has sustained, which may be different from its chronological age."

The URAR form specifically asks for the actual age to be entered into the sales grid. Effective age may be entered as well, but not on the same line as the actual age. If an appraiser wishes to make adjustments for effective age, they must be made on one of the blank lines near the bottom of the sales comparison grid on the URAR form.

There is a method that can be used to estimate the economic life for the subject and also provide a supported adjustment amount to be made for differences in age between the subject property and comparable sales. This is the market extraction method which is typically used to extract depreciation for use in the cost approach. However, it can yield results that can be effectively utilized in making age adjustments in the sales comparison approach and to provide support for an estimate of economic life. In this method, the site value is subtracted from the sale price of improved sales to isolate the contributory value of the improvement. This improvement value is compared to the cost new of the improvement to extract depreciation. The overall percentage of depreciation can then be divided by the age of the improvement to produce an annual depreciation rate. This can be used to make an age adjustment; it can also be used to produce an estimate of total economic life by dividing it into 100. For example, if an improvement is depreciating at an annual rate of 2%, it has a total economic life of 50 years (2 / 100).

Condition is different than quality. Condition is determined by the maintenance and care the dwelling has received. A good-quality dwelling might be poorly maintained and in less-than-average condition. There are six condition ratings specified in the Uniform Appraisal Dataset; they range from C1 (best) to C6 (worst).

Gross living area (GLA) includes only finished living areas that are above-grade. With rare exception, we **do not** include rooms that are even partly below grade, although they may be finished. Rooms that are below grade are noted separately on the URAR form.

If a dwelling has a layout or design deficiency, a functional utility adjustment may be necessary. **Functional utility** is defined as

"The ability of a property or building to be useful and to perform the function for which it is intended according to current market tastes and standards; the efficiency of a building's use in terms of architectural style, design and layout, traffic patterns, and the size and type of rooms."

Other physical characteristics that might require adjustment include heating/cooling, special energy efficient items, garages, and porches/decks/patios.

CHAPTER 9

The Uniform Residential Appraisal Report (URAR) form is the most commonly used residential appraisal report form. It is intended for use in reporting the results of an appraisal made for mortgage lending purposes only. Fannie Mae and Freddie Mac jointly designed the form, and they require certain exhibits as part of the appraisal report. These include:

- Building sketch and calculations
- Street map
- Exterior photographs of the subject and comparable properties
- Interior photographs (assuming an interior inspection)
- Other assignment-specific forms as necessary

The URAR form has space for the subject and three comparables. If necessary, you can add space for more comparables on the URAR using your software. If your research indicates there are many properties that might be considered possible comparables, you will have to narrow down the field to the **sales most similar to the subject**. Hopefully, the sales will have features and values that are both above and below the subject to “bracket” the subject.

Net adjustment is defined as:

“The sum of the positive and negative adjustments made to a comparable sale price.”

Remember that positive and negative adjustments can offset each other. It is possible for the net adjustment to equal zero.

A **gross adjustment** is defined as:

“The total adjustment to each comparable sale price calculated by adding the absolute values of all positive and negative adjustments.”

The total gross adjustment is usually a better indicator of the comparability of a comparable sale than the net adjustment.

Fannie Mae and Freddie Mac do not have specific limitations or guidelines associated with net or gross adjustments.

The “Adjusted Sale Price of Comparables” is the last line in the sales comparison grid. Here we take the sale price of each comparable and add to or subtract from that sale price the amount of the net adjustment. The adjusted sale prices should form a tighter pattern than the raw, unadjusted sale prices

we started with. The adjusted sale prices should form the ultimate range of value for the subject property.

Below the Comments field on the URAR form, you will be asked to document how many times the subject and comparables have sold in the past year(s). It is required by USPAP that we analyze prior sales on the **subject property** for the prior 3 years. USPAP does **not** require a sales history of the **comparable sales**; but when completing the URAR for lending purposes, the form requires a one-year sale history of each comparable sale.

As you review the data you entered into the sales comparison grid, ask yourself three questions:

1. Do I have a sufficient **quantity** of comparables to justify a value conclusion? (With unusual properties, it's not uncommon to need 6 or more!)
2. Is my data of reliable **quality**? (Does it reflect standardization of measurements and reputable sources of data?)
3. Is each comparable **appropriate**? Has an arm's length sale occurred on the open market?

Presumably, you will now have at least three indications of value. We don't just add the three numbers together and divide by three, i.e., **we do not use the average of the indications**. As part of the reconciliation, we need to go back and re-analyze all the comparable sales. We need to identify which are the strongest sales and the weakest sales. The sales that are the strongest should command the most weight in reconciling to a value conclusion.

It is possible under USPAP to produce a final opinion of value as a range of numbers, e.g., \$190,000-\$195,000. However, in most appraisals for lending purposes, the client desires a single-point estimate.

CHAPTER 10

Real estate has two basic components: the land and the improvements. While each can be used to generate income, it is more typical for them to be combined and used to generate income. The decision to purchase by an investor is motivated more by the property's income generating capabilities and the risks associated with receiving that income, on a consistent basis. The investor is willing to purchase a property only if they believe there is a reasonable expectation of the property generating cash flows in the future. In the appraisal process, this is known as the **principle of anticipation**.

The **principle of anticipation** is defined in *The Dictionary of Real Estate Appraisal, Sixth Edition*, published by the Appraisal Institute, as:

"the perception that value is created by the expectation of benefits to be derived in the future."

This principle has its strongest application in the valuation of income-producing properties.

The income capitalization approach considers the value of a property to a typical investor - also referred to as a "prudent" investor. The primary objective of any investor is to earn a profit from the operation of the property (the income generated exceeds the expenses required to operate and maintain the property), and by selling the property at the end of the holding period.

Residential investment properties are typically one- to four-unit properties. Although apartment complexes are residential in character, they are usually considered to be commercial investments. In valuing 1- to 4-unit residential investment properties by the income capitalization approach, the most common technique used is the gross rent multiplier (GRM) method. This is simple valuation methodology which is geared to less sophisticated investors.

Commercial investments typically include buildings with five or more living units, or any type of property that will not be "lived in". In valuing these properties by the income capitalization approach, the techniques are more complicated and require greater expertise on the part of the appraiser. While the multiplier method can be used, the more common types of techniques include direct capitalization and discounted cash flow (DCF) analysis.

To an investor, value is composed of two components: a return **ON** investment and a return **OF** investment. This gets into the element of risk. Investments vary considerably in the degree of uncertainty, or risk, that is involved. Not all investments are equal, and therefore they carry different rates of return. If we assume investors are typically prudent and make decisions to maximize their returns, risk must be accounted for in the equation. To compensate for a higher risk, investors demand a higher return.

The downside to real estate investment is that it is relatively non-liquid. Marketing times are uncertain, and it may take months or years to liquidate an income-producing property. Another issue to address is the burden of management that is shouldered in a real estate investment. It is substantial and is another reason why real estate investors demand higher yields.

Market value is the focus of most real property appraisal assignments. Market value assumes buyer and seller are typically motivated and each party is acting prudently and knowledgeably, and the property is transferred under all conditions requisite to a fair sale, without duress.

Some appraisals of income-producing property are made for **investment value**, which is defined as:

"The value of a property interest to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market."

Market value examines the typical motivations of the average buyer and seller under all normal conditions of marketing and financing. Investment value examines the motivations and needs of a specific investor or group of investors.

There are other types of value that an appraiser might develop as well, including insurable value, assessed value, use value, or going concern value.

CHAPTER I I

In 1981, Hewlett Packard introduced the HP 12C. It had an innovative design and used a process of data entry called Reverse Polish Notation (RPN). The 12C and the other HP calculators have been adopted by the appraisal community and enjoy extensive usage in the profession. Today, the HP12 C is one of the few calculators permitted to be used when taking the National Uniform Appraiser Examinations.

The **gold** and **blue** keys at the bottom are “shift” keys. They tell the calculator to **shift** to another function. For example, look at the number 8. On the bottom of the key in **blue** it says **END**. If you just press “8” you will see in the display the number 8. But if you first press the **blue** key and then “8” you will set a function for calculating whether payments are made at the beginning of a time period or the end. This greatly enhances the capabilities of the 12C. There are 39 keys on the face of the calculator. But by employing them in conjunction with the shift keys they are able to produce over 120 functions.

There are 20 data storage registers available on the HP12C. To access them press the **STO** (store) and **RCL** (recall) keys.

There are three keys on the 12C that you can use for percentage functions:

- **%** - simple percent
- **Δ%** - percent difference
- **%T** - percent of total

When working percentage problems, you do not have to convert percentages into decimals (e.g., 5% = 0.05). By using the % key, the calculator does that for you. The HP 12C also has day/date/calendar functions and can, for example, calculate the number of days between two entered dates.

CHAPTER 12

For an appraiser to be able to properly analyze and reflect an investor's motivation, he or she must understand what is referred to as the six functions of a dollar. The **six functions of a dollar** are defined as:

"The six related compound interest functions used in the mathematics of finance and shown in standard compound interest tables."

The six functions of a dollar are used to help the investor calculate the "value of money" – either by **compounding** it from the present day forward into the future or **discounting** it back from the future to the present day.

The definition of **compound interest** is:

"Interest earned on the original investment amount and on previously earned interest."

The definition of **discounting** is:

- "1. Conversion of benefits received in the future (e.g., periodic incomes, cash flows, reversion) to present value.*
- 2. Money paid at the beginning of a time period for the use of capital during that period; commonly deducted from the principal when the funds are advanced."*

The six functions of a dollar are:

1. Amount of \$1 (The amount to which \$1 will grow)
2. Amount of \$1 Per Period (The amount to which \$1 per period will grow)
3. Sinking Fund Factor (The amount per period which will grow to \$1)
4. Present Value of \$1 (What \$1 due in the future is worth today)
5. Present Value of \$1 per period (What \$1 payable periodically is worth today)
6. Partial Payment (Amount to amortize \$1)

The first three functions solve for **future values** while the last three solve for **present values**.

Many years ago, these processes were all pre-calculated for various interest rates and lengths of time. The results were summarized in tables which could be purchased. Today, you can obtain the same results using an HP 12C or a computer program.

CHAPTER 13

The HP 12C employs five financial function keys. They are arrayed across the top of the calculator and include:

- **n = number of periods**
- **i = periodic interest rate**
- **PV = present value**
- **PMT = periodic payment**
- **FV = future value**

To clear all the financial registers, simply press **f CLEAR FIN**. You should train yourself to do that whenever you start to solve a new problem. Information can be added into the five keys in any order.

To solve a problem, you need to know any three items - then you can solve for the fourth item (unknown). In some problems you need to know four items and then solve for the fifth.

In every financial problem there needs to be at least one negative cash flow and at least one positive cash flow. For example, in an amortization (mortgage) problem, you receive one large lump sum (positive) cash flow when you receive the mortgage money. Then, for the next 360 months you pay out mortgage payments (negative cash flows).

Remember, the six functions of a dollar are:

The six functions of a dollar are:

1. Amount of \$1 (The amount to which \$1 will grow)
2. Amount of \$1 Per Period (The amount to which \$1 per period will grow)
3. Sinking Fund Factor (The amount per period which will grow to \$1)
4. Present Value of \$1 (What \$1 due in the future is worth today)
5. Present Value of \$1 per period (What \$1 payable periodically is worth today)
6. Partial Payment (Amount to amortize \$1)

Using the HP 12C to solve six functions of a dollar problems, you would use the following keys:

1. Amount of \$1 (Key in PV, n, and i, solve for FV)
2. Amount of \$1 Per Period (Key in PMT, n, and i, solve for FV)
3. Sinking Fund Factor (Key in FV, n, and i, solve for PMT)
4. Present Value of \$1 (Key in FV, n, and i, solve for PV)
5. Present Value of \$1 per period (Key in PMT, n, and i, solve for PV)
6. Partial Payment (Key in PV, n, and i, solve for PMT)

Because most mortgages are written on a monthly basis, there are two special keys on the HP 12C for performing monthly mortgage calculations. The **g** key is a shortcut when there are monthly payments. It multiplies by 12 when you are calculating **n** (number of periods), and it divides by 12 when you are calculating **i** (periodic interest).

CHAPTER 14

The **income capitalization approach** is defined in The Dictionary of Real Estate Appraisal, Sixth Edition, published by the Appraisal Institute as:

"Specific appraisal techniques applied to develop a value indication for a property based on its earning capability and calculated by the capitalization of property income."

The income capitalization approach converts income streams into a lump sum indication of a property value. This can be done in one of two ways – the income can either be divided by a rate or multiplied by a multiplier.

Value = Income / Rate

Value = Income X Multiplier

When utilizing multipliers, we usually are utilizing gross income; this can be potential gross income (PGI) or effective gross income (EGI). For one- to four-unit residential properties, potential gross income is typically used. The GRM approach assumes that there is a direct relationship between rental income and value.

The appraisal technique must suit the property type appraised. We need to develop an appropriate scope of work to solve the problem in each assignment. You might appraise a three-unit based on a gross multiplier but if you were to appraise a 400-unit apartment building on that basis, it would not be appropriate. You would more likely employ a capitalization of net income by a capitalization rate, or you might employ other techniques such as a discounted cash flow analysis (DCF).

A **gross rent multiplier** (GRM) is defined as

"The relationship or ratio between the sale price or value of a property and its periodic gross rental income."

GRMs are derived by dividing the sales price of a property by its gross monthly unfurnished market rent at the time of sale. Several indications of GRMs are analyzed and reconciled into an appropriate multiplier that can be used to develop an indication of value by the income capitalization approach.

When using the GRM method in a market value appraisal, market rents are used. Market rent is what the property **should** bring in rent, which may or may not equal that for which it actually is rented now (contract rent). To properly develop a GRM approach, we need to analyze the local rental market to arrive at a supportable opinion of the market rent of the subject property. We need to look to comparable rentals. We choose comparable **rentals** in much the same fashion as we choose comparable **sales**.

When a GRM is selected and an opinion of market rent is developed, it is a simple matter of multiplying the GRM by the rent to produce an indication of value.

Gross income multipliers (GIM) work on the same principle as gross rent multipliers. Value is indicated by a certain ratio of income to value. However, we reserve GRM for one- to four-unit residential properties. Gross income multipliers are applied to larger multi-unit residential properties and non-residential income-producing properties.

There are two essential differences between the terms income and rent. **First**, rent is income from the land and/or improvements. Income includes rent, but may also include other types of income, for example, from garage rentals, coin-operated laundry facilities, vending machines, appliance rentals, etc. Second, rent is normally stated on a monthly basis, e.g., \$1,200 per month, while income is typically stated on an annual basis, e.g., \$14,400 per year.

The essential difference between GRM and GIM is that GRM is typically applied on a monthly basis (i.e., using monthly rent). In GIM, income and expenses are **annualized** when analyzing income-producing properties.

Potential gross income (PGI) is defined as:

"The total income attributable to real property at full occupancy before vacancy and operating expenses are deducted."

PGI is the most possible rent a property could produce. It assumes the units are rented every day of the year at market rent.

Effective gross income (EGI) is defined as:

"The anticipated income from all operations of the real estate after an allowance is made for vacancy and collection losses and an addition is made for any other income."

The GIM may be employed with either potential or effective gross income streams.

CHAPTER 15

Despite its inherent simplicity, the GRM approach will produce a credible indication of value if applied properly. It is best applied to one- to four-family residential properties.

Single-unit dwellings are infrequently purchased for investment. The rent from one home, in most markets, is insufficient to cover the costs of operation. However, in some markets, single-unit dwellings can be profitable investments.

When considering purchase of a single-unit investment property it is important to research the market area. This analysis will tell you a lot about the desirability of purchasing a single-unit home and expecting to rent it out profitably.

The GRM method can only be applied if there is enough reliable sales and rental data. The comparable rentals and sales utilized in the GRM method should be similar in size, age, appeal, quality, condition, etc. Most importantly, an appraiser needs to find a sufficient quantity of similar properties that were rented at the time of sale, in order to extract and support a GRM. When reconciling to a GRM, an appraiser may employ statistical analyses such as range, mean, median, and mode, assuming that a sufficient quantity of data is available.

There are several additional concerns that come into play when evaluating income property comparables. They should be comparable in terms of:

- Division of utility expenses between the landlord and tenant
- Ratio of expenses to income
- Lease terms

When estimating market rent, an appraiser should not automatically assume that current rent is equal to market rent. To estimate market rent, the appraiser needs to research and analyze properties that are rented. If comparable rental properties are significantly different from the subject, the appraiser may adjust the rent, similar to how adjustments are made in the sales comparison approach.

Fannie Mae has created a form for reporting an opinion of market rent as part of an appraisal assignment. This form, numbered as Form 1007, is titled Single Family Comparable Rent Schedule. It is required when the subject of an appraisal is a single-unit rental property and the borrower is using rental income from the property to qualify for the mortgage. It contains an adjustment grid, like the URAR form. On this form, though, the appraiser makes adjustments to the rental amounts of the comparables, not their sale prices. The indicated values of the comparables on Form 1007 are reconciled into an opinion of market rent for the subject.

CHAPTER 16

The GRM method is also commonly used when appraising two- to four-unit residential properties. Alternatively, an appraiser may use direct capitalization, which requires the appraiser to subtract estimates of vacancy and collection loss and operating expenses from the potential gross income (PGI) to arrive at an estimate of net operating income (NOI).

Potential gross income (PGI) is defined as:

"The total income attributable to real property at full occupancy before vacancy and operating expenses are deducted."

Vacancy and collection loss is defined as:

"A deduction from potential gross income (PGI) made to reflect income reductions due to vacancies, tenant turnover, and nonpayment of rent; also called vacancy and credit loss or vacancy and contingency loss."

A well-run operation will sustain a reasonable number of vacancies over time. This amount will generally be dictated by the supply and demand characteristics of the local rental market. The normal, or expected, vacancy rate can be determined by market research.

After subtracting vacancy and collection loss from potential gross income, the result is effective gross income (EGI). EGI also includes any other income generated, such as vending machines, coin-op laundry, or parking space rentals.

Operating expenses constitute the main difference between gross and net Income. **Operating expenses** are defined as:

"The periodic expenditures necessary to maintain the real estate and continue production of the effective gross income, assuming prudent and competent management. See also total operating expenses."

Fixed expenses are expenses that do not vary with occupancy, such as real estate taxes and hazard insurance. For example, if your rental property is vacant, you still must pay the taxes and keep up the insurance.

Variable expenses are expenses that vary according to occupancy. For example, if your rental property is vacant, you will not need to spend as much to maintain the property, and your utility bills will also be lower.

Replacement allowance (replacement reserves) is defined as:

"An allowance that provides for the periodic replacement of building components that wear out more rapidly than the building itself and must be replaced during the building's economic life; sometimes referred to as reserves or reserves for replacement."

Typical building components that would have to be replaced at least once in a building's life would include, among others:

- Roof
- Boiler
- Carpeting
- Water heater
- Septic tank
- Water pump
- Plumbing fixtures
- Driveway and parking area

A prudent building manager will set up an account and put aside money each year so that replacement of these capital items can be accomplished when needed. If there is a roof that is expected to last 20 years and it will cost \$10,000 to replace; the manager needs to put \$500 aside each year.

When operating expenses are subtracted from effective gross income, the result is net operating income. The steps in the process are recapped below.

Gross Annual Rental (Potential Gross Income)

+ Other Income

- Vacancy/Credit Loss

= Effective Gross Income

- Operating Expenses

= Net Operating Income

Fannie Mae formerly required the Operating Income Statement (Form 216) to be completed and submitted with appraisals of 2-4 family investment properties. Several years ago, Fannie and Freddie dropped the requirement that this form be utilized. Nevertheless, many lenders still require the use of Form 216 when appraising 2-4 family income-producing properties. It is important to note that Form 216 is not an appraisal form; it is an underwriting form. The purpose of this form is to assist the underwriter in determining if there will be any income from the projected operation of the property that can be used to help the borrower qualify for the loan.

CHAPTER 17

Fannie Mae and Freddie Mac have created a form that is intended for use in reporting the results of an appraisal of a two- to four-unit residential property. This is the Small Residential Income Property Appraisal Report form, which is also known as the SRIPAR form or Form 1025. This form is like the URAR and has space to report the sales comparison approach, the income approach, and the cost approach.

In the sales comparison approach, an appraiser is required to enter a minimum of three comparable sales and make adjustments to them to produce indicated values. There is an important difference, however, as the form requires analysis of value indicators on a per-unit basis. We are asked to analyze what each comparable sold for per:

- Square foot of GBA
- Unit
- Room
- Bedroom

Assuming a minimum of three comparable sales that are adjusted, an appraiser will then have a minimum of seven (7) indicators of value that will need to be reconciled. So instead of reconciling merely the three adjusted comparable sale prices, we need to broaden our horizons and study all the indicators of value for the subject property. These indicators will be reconciled into an indication of value by the sales comparison approach.

The appraiser is then required to reconcile the value conclusion of the sales comparison approach with the value conclusion(s) of the other approach(es), if developed, into a final opinion of value.

CHAPTER 18

Reconciliation is defined as:

"A phase of a valuation assignment in which two or more value indications are processed into a value opinion, which may be a range of value, a single point estimate, or a reference to a benchmark value."

In actuality, a form of reconciliation goes on all through the assignment. We may reconcile one indication of value from various possible choices in arriving at estimates of

- Site value
- Replacement costs
- Depreciation
- Vacancy rates
- Market rents
- GRM
- Operating expenses
- Taxes
- Insurance

If we utilize the minimum number of three comparable sales, statistical analysis will be of little use. The power of statistics only cuts in after a sufficient number of observations are made. However, if we use six or more comparables, then we might consider employing some statistical tools in our analysis, such as the mean, median, and mode.

Ranking of the comparable sales in order of desirability makes a logical and persuasive argument. For example, let's say the indicated value of three comparable sales, after adjustment, were:

- **Sale 1 \$186,000**
- **Sale 2 \$192,000**
- **Sale 3 \$195,000**

If we feel that the best sale was Sale 1 and the least reliable sale was Sale 3, then we want to resolve our final estimate towards the lower end of the value range. We may settle on \$186,000, or \$187,000, or \$188,000.

If the two best sales seem to be Sales 2 and 3, we are drawn to the higher end of the range. Probably, we would feel comfortable in reconciling to a value conclusion between \$192,000 and \$195,000, with proper explanation.

Think about this reconciliation process and then summarize it in the section of the URAR labeled "Summary of Sales Comparison Approach." The reconciliation summary should be written specifically for the appraisal you are preparing. An appraiser should not use statements such as this for the entire reconciliation:

- "All the sales supported the subject."
- "The sales price was well supported by the comparable sales."
- "I placed emphasis on all sales equally."
- "The sales indicated a value of \$200,000."
- "All the sales were good comps."

Your final reconciliation is an important part of the appraisal process. It is the summing up of all you did, like a closing statement by an attorney at trial. You must sell your case to the client and intended users of your report.

The final reconciliation process consists of consideration of various items:

- Review
- Appropriateness
- Consistency
- Accuracy
- Relevance
- Quality of data
- Quantity of data

In most cases, the client expects the appraiser to reconcile to a single-point number. If the client does not require this, it is acceptable under USPAP to reconcile to a range of value (e.g., "\$200,000 to \$210,000") or a relationship to a benchmark (e.g., "at least \$200,000").

The final opinion of value needs to be appropriately rounded for that magnitude of numbers. Appraisers need to round to avoid the perception that the final value opinion is a precise number. We do not wish to imply a precision that we do not possess.

STUDY NOTES

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