



Department of Local Government Finance

The Sales Comparison Approach

2022 Level II Tutorial



Sales Comparison Approach

- The Sales Comparison Approach uses sales prices as evidence of the value of similar properties.
- The price at which a particular property sells is the price determined by the interaction of supply and demand at the time of sale.



Sales Comparison Approach

- If supply or demand factors shift, prices generally rise or fall. In most cases you have seen this in the real estate market when you compare current sales prices now compared to five or six years ago.
- The sales comparison approach is most suitable when there are frequent sales of similar properties.



Sales Comparison Approach

- Because no two properties are exactly alike, methods must be used to adjust the prices of sold properties, or comparables.
- The known prices are adjusted by adding or subtracting the amount which a given feature appears to add to, or subtract from, the price of the comparison property.
- Remember, you make adjustments to the comparable, not to the subject!



Sales Comparison Approach

- Adjustments may also need to be made for time and terms of sale.
- We will take a look at how the sales comparison approach is used and some of the factors that are involved in using it.



Sales Comparison Approach

- Let's look at a few basic definitions:
 - Demand: the desire and ability to purchase commodities and/or services at various price levels. Demand is represented by buyers.
 - Supply: the quantity of goods or services available for sale at various price levels. Supply is represented by sellers.
 - *(These are good definitions to understand!)*



Sales Comparison Approach

- An inverse relationship exists between price and quantity demanded.
 - As the price goes down, the quantity demanded increases; as the price goes up, the quantity demanded decreases.



Sales Comparison Approach

- Factors that affect demand:
 - The price of the commodity
 - Consumer income
 - The price of related goods – substituting one brand of paint for another at a lower price or buying a house in neighborhood A instead of in neighborhood B
 - The price of complimentary goods – paint brushes, nails, etc.



Sales Comparison Approach

- Consumer expectations of future price changes – increases in interest rates, the price of winter gas or heating oil, automaker incentives.



Sales Comparison Approach

- Factors that affect supply:
 - The price of the commodity
 - The availability of land, labor, management and capital
 - Available technology
 - Housing prices
 - Size of the housing stock available
 - Construction costs and methodologies



Sales Comparison Approach

- When the quantity of goods offered for sale equals the amount of goods demanded for purchase, you have the market value.
- The marketplace is where the buyers and sellers meet to exchange property rights for other assets.
- *(These are good definitions to understand!)*



Sales Comparison Approach

- A buyer's market is a market that exists when oversupply and excess capacity permit buyers to drive price levels down.
- A seller's market is a market that exists when demand is so strong that supply levels fall and sellers escalate prices.
- *(This is a good slide you will need to understand!)*



Sales Comparison Approach

- Markets and their products are interconnected (or linked) with other markets. Horizontal linkages occur when substitute or complimentary products create relationships between related and unrelated markets. (For example, changes in interest rates affect demand for real estate.)



Sales Comparison Approach

- Horizontal market linkages provide the rationale for:
 - The sales comparison approach to value.
 - Determining adjustments to the comparables.
 - Establishing how market participants purchase land.



Sales Comparison Approach

- Let's look at value:
 - Value is composed of five economic factors that must be present to create it. They are:
 - Utility – the ability of a good to create and satisfy human desires and needs; usefulness.
 - Scarcity – demand must exceed supply for a commodity to have value.



Sales Comparison Approach

- Desire – the wish to acquire an item to satisfy human needs that goes beyond the essentials to supply life.
- Purchasing power – the ability to purchase goods for sale with cash or its equivalent.
- Salability – a commodity that for any reason cannot be sold has no value.



Sales Comparison Approach

- A distinction must be made between the terms real estate and real property. (*Remember the differences between these two terms!*)
- Real Estate is the physical land and the appurtenances affixed to the land. It is the tangible part of real property.



Sales Comparison Approach

- Real Property includes all the interests, rights and benefits included in owning the physical real estate. We can give up some of the rights and retain others, such as selling mineral rights or retaining a life estate.



Sales Comparison Approach

- Market value is defined as by the IAAO in “Mass Appraisal of Real Property” as: “The most probable price (in terms of money) which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus.



Sales Comparison Approach

- Implications of the definition:
 - Buyer and seller are typically motivated by self interest and personal gain.
 - Both parties are well informed or advised and act in what they consider to be their best interests.
 - A reasonable time is allowed for exposure on the open market.



Sales Comparison Approach

- Payment is made in terms of cash or in terms of financial arrangements comparable to cash.
- The price is unaffected by special financing or concessions.



Sales Comparison Approach

- The steps required in the sales comparison approach:
 1. Definition of the appraisal problem.
 2. Data collection and verification.
 3. Analysis of market data to develop units of comparison and select attributes for adjustment.
 4. Development of reasonable adjustments.



Sales Comparison Approach

5. Application of the adjustments to the comparable sales.
6. Analysis of adjusted prices to estimate value of subject property.

The formula for the sales comparison approach is:

$$SP_C \pm \text{Adj.} = V$$

(Sales price of comparable plus / minus the adjustments to each comparable equals value)



Sales Comparison Approach

- The sales comparison approach estimates the market value of a subject property by adjusting the sale price of comparable properties for differences between the comparables and the subject.
- Note, you always make adjustments to the comparable and not to the subject!



Sales Comparison Approach

- Comparability is a measure of similarity between a sale and a subject.
- Sale property and subject property should be similar with respect to date of sale, economic conditions, physical attributes and competitiveness in the same market.



Sales Comparison Approach

- Selecting the Comparables:
 - Three to five is usually adequate, but a larger number improves confidence in the final estimate, increases the awareness of patterns of value and stabilizes assessments over time.
 - Units of comparison may be the property as a whole or some smaller measure of the size of the property.



Sales Comparison Approach

- Common units of comparison are square feet of gross building area; square feet of net rentable area; front footage; number of rooms or units; and the gross rent multiplier.



Sales Comparison Approach

- Attributes are such things as age, size, number of bathrooms, quality of construction, design, land area, and location.
- The sale price is a function of how buyers and sellers perceive the utility of important property attributes.



Sales Comparison Approach

- Is the attribute quantitative or qualitative? (Remember the differences between these two terms!)
- Qualitative attributes usually represent demand because they measure utility and are usually adjusted with percentages. They are based on discrete, predefined categories.



Sales Comparison Approach

- Quantitative attributes that measure the range of housing services available usually represent supply, but they can represent demand as well. They are usually adjusted with dollar amounts, and are based on measuring or counting.



Sales Comparison Approach

- Let's look at some attributes and whether they are quantitative or qualitative:
 - Building size – quantitative
 - Air conditioning – qualitative
 - Condition – qualitative
 - Bathrooms – quantitative
 - Year built – quantitative
- (Know what attributes are qualitative / quantitative!)



Sales Comparison Approach

- How do the relationships between the attributes contribute to value?
 - How do they relate to one another? Are the adjustments added together to form a total adjustment, or are they to be multiplied, or some combination?
 - How do changes in quality and size relate to changes in value? Does a second bathroom make the same contribution to value as the first?



Sales Comparison Approach

- Once you have selected your comparables and your attributes and determined the relationship of your attributes and their contribution to value, you are ready to determine the adjustment amounts (coefficients).



Sales Comparison Approach

- Making proper adjustments to value is the most important step in order to arrive at credible value indications for the subject property.
- There are five steps in the adjustment process.



Sales Comparison Approach

- Step 1 – Identify all elements of comparison affecting the market value of the subject property.
- Step 2 – Compare the amenities of each comparable with those of the subject, quantifying the difference between the comps and the subject property.



Sales Comparison Approach

- Step 3 – Apply the appropriate adjustments for each difference to the unit of comparison or the total sale price of the comps and develop a net adjustment for each comp.
- Step 4 – Bracket the adjusted values of the comps by identifying those that are superior, similar or inferior to the subject.



Sales Comparison Approach

- Step 5 – Reconcile the indications of value into a final estimate of the subject.
- Sales with inferior amenities are adjusted upward to the subject.
- Sales with superior amenities are adjusted downward to the subject.
- *The next slide is an excellent example in illustrating the adjustment process!*



Sales Comparison Approach

Superior – Better – More Than

↓ -

MV Subject _____

↑ +

Inferior – Poorer – Less Than

(This is good slide you will need to understand!)



Sales Comparison Approach

- Using the prior slide information, here are two examples.
- If the comparable has three bathrooms, the subject has two bathrooms you would make a downward adjustment for bathrooms.
- If the comparable has no garage, the subject has a garage you would make an upward adjustment for garage.



Sales Comparison Approach

- Lump sum adjustments are actual dollar amounts that represent the market's perception of the difference between the comp and the subject. For example, an adjustment of \$1,000 may represent the market's opinion of the contributory value of a second bathroom.



Sales Comparison Approach

- Percentage adjustments represent a value difference between the comp and the subject, expressed as a percentage of the sale price.
- Cumulative percentage adjustments – differences are expressed as a percentage for each item and are summed to determine the net adjustment to the comp sale price.



Sales Comparison Approach

- Multiplicative percentage adjustments – individual adjustment percentages are multiplied by each other to determine the total adjustment.



Sales Comparison Approach

- Percentage and lump sum adjustments are made in successive order:
 - Property rights conveyed
 - Financing terms
 - Conditions of sale
 - Market conditions
 - Location
 - Physical characteristics
 - Non-realty components



Sales Comparison Approach

- The adjustments always have to be done in this order.
- There are several different ways to determine the adjustments, and we will briefly discuss them.



Sales Comparison Approach

- Paired sales:
 - Useful when many homogenous sales are available
 - One method of determining time adjustments as long as there have been no changes between the sale dates of the resale properties
 - Can be used to estimate qualitative and quantitative adjustments
 - Later in this class you will work a paired sales problem.



Sales Comparison Approach

- Multiple Regression Analysis:
 - Does not require strict similarity between parcels.
 - Statistical technique for estimating unknown data on the basis of known and available data (sale prices and property characteristics.)



Sales Comparison Approach

- Adaptive Estimation Procedure (AEP or feedback):
 - A valuation equation is specified and adjusted as data on individual sales are sequentially processed and analyzed. The process continues, with each sale processed many times, until the model converges on a satisfactory solution.



Sales Comparison Approach

- Cost Method:
 - Based on the theory that the market value of an improved parcel can be estimated by the sum of the land value and the depreciated value of the improvements.
 - Cost approach Formula is: $MV = LV + (RCN - D)$
 - Market value = land value plus replacement cost new minus depreciation of the improvements. This is the definition for cost approach.



Sales Comparison Approach

- In the sales comparison approach, procedures are similar but the units of comparison and attributes selected are different for different property types.
- From an analysis of value indicators, a unit of measurement is selected that most clearly reflects the purchaser's behavior in the marketplace.
- As a general rule, the best market indicator is the one with the lowest variance or least number of adjustments.



Sales Comparison Approach

- The unit of measurement chosen is used as the starting point for adjustments.
- The next step is market analysis to select the attributes to be adjusted and the size of the adjustments.
- For instance, if you are working with apartment buildings, you might use price per apartment, price per room or square footage.
- For a general-purpose commercial building, you might use sale price per square foot.



Class Problem #1

- Please go to your sales comparison approach problem and answer module with audio and work Class Problem Number 1—Comparative Attributes of an Apartment Building.



Sales Comparison Approach

- If necessary, the first adjustment is always the time adjustment. The next slide is an example which illustrates the steps in calculating a time adjustment.



Time Adjustment:

A home recently sold for \$112,000. The home also sold one year ago for \$100,000.

- What is the \$ amount of the time adjustment? 12000
- What % per month. 1%

Using this information, if a home sold six months ago for \$125,000, what it sell for today?

What is the \$ amount of time adjustment? 7500

What is the time adjusted value? 132500

Step 1 – Difference in two sales prices is \$12,000. Divide this amount into the first sale price of \$100,000. You will come up with a 12% increase.

Step 2 – If home sold six months ago, values increased 1% per month, total increase would be 6%. Take the sale price of \$125,000 x 6% = \$7,500.

Time adjusted sales price is the \$125,000 plus \$7,500 equals \$132,500.



Class Problem #2

- Please go to your sales comparison approach problem and answer packet module with audio and work Class Problem # 2 – Lump Sum and Percentage Adjustments.



Practice Problem #1

- Please go to your sales comparison approach problem and answer packet module with audio and work Practice Problem #1 – Paired Sales.



Practice Problem #2

- Please go to your sales comparison approach problem and answer packet module with audio and work Practice Problem #2 – Sales Comparison.



Practice Problem #3

- Please go to your sales comparison approach problem and answer packet module with audio and work Practice Problem #3 – Time Adjustment Practice.



Sales Comparison Approach

This concludes the Sales Comparison Approach tutorial and is a reminder that should you have questions you can email these questions to the Department.

Please send emails to Level2@dlgf.in.gov.