

Objectives

- Increase your awareness of appraisal principles and real property valuation
- Give insight on what appraisers do
- Provide understanding on the definition of Market Value
- Familiarize you with some terminology used in the appraisal of real property
- Provide an overview/discussion on the 3 approaches used to arrive at market value
- Provide a brief overview of mass appraisal and revaluation plans



RCW 84.40.030 and WAC 458-07-030 set forth the basis for the approaches used to value various types of property.



The most probable price which a property should bring...in a open and competitive market; under conditions requisite to a fair sale; the buyer and seller each acting prudently and knowledgeably; assuming the price is not affected by undue stimulus (pending foreclosure, so sell)

...<u>implicit</u> is a sale as of a specified date and passing of title from seller to buyer whereby:

- *1. buyer and seller are typically motivated;*
- 2. both parties are well informed or well advised, and acting in what they consider their best interest;
- 3. a reasonable time is allowed for exposure in the open market;
- 4. payment is made in terms of cash in or terms of comparable financial arrangements;
- 5. price is unaffected by special/creative financing



Discovery: Locate and identify all real property in the jurisdiction. Permits or imp. w/no permits

Listing: Create and maintain an inventory of quantity, quality, and important characteristics of each property

Important to have good information. The assessor sets assessments, allows exemptions (senior citizen), preferential assessments current use (valued at something other than 100%)

Valuation: Use appropriate appraisal techniques. WA State 100% of market value (Cost, Sales Comparison or Market data, Income approach)

Revaluation: Perform mass valuation updates on all real property within the jurisdiction –Statistical Ratio Analysis and Mass Update. All 39 Counties are annual update, physical inspections done in sections.

Defend: Review and support valuations appealed to the BOE, BTA, or courts



Today we are going to review the three approaches to value and provide a brief introductory discussion on how to perform them. For those of you who are not new to appraising, this section may seem a bit rudimentary in scope, but it is only an hour discussion and many of the folks here will not be doing the appraisal role. The intent of this information is to give everyone a "taste" of what it is that the appraisers are doing.

For a more detailed and in depth training on these approaches you will want to take individual classes, offered by the Appraisal Institute, the International Association of Assessing Officers, or a third party provider.

Need good subject data. **Cost:** good approach on newer buildings and can be done on any structure.

Sales Approach: good if you have sales, typically on residential

Income: Income producing properties: Apartments, Malls, Mini-Storage

Not all three approaches are pertinent in the valuation of all properties. All 3 approaches require market data. The supply and demand factors that best explain a value for a property are reflected in the appropriate approach or approaches to appraisal.



On all properties that you are going to appraise you need to know the following types of data, site characteristics and improvements and the dwelling improvements.

# Site characteristics:

- Location
- Access
- Size / Shape / Topography
- Zoning
- Utilities
- Amenities

#### Site improvements:

- Utility hook-ups
- driveway,

- landscaping,
- retaining walls,
- bulkheads, etc.

Dwelling improvements: (qualitative/quantitative) Qual:not expressed in \$ amount but inferior, superior or equal (ranking comparison analysis). Reflects imperfect nature of real estate markets. Quantitative, paired data analysis, sales of similar properties (direct comparisons), statistical analysis, grouped data analysis)

- Number of stories
- Exterior walls
- Roof material / Floor covering
- Size in square footage
- Basement (size/finish)
- Number of rooms / bedrooms
- Number of bathrooms
- Type of heating system / air conditioning
- Actual Age / Effective Age (any remodeling) /overall condition– (Similar homes, Richland, some maintained/some not. Two homes built in 1940, one has been maintained, effective age of 25 and the other has not been maintained with eff. Age of 40.)
- Overall quality
- Garages, carports, porches, decks
- Other (built-ins, fireplaces, saunas, pools, hot tubs, etc.)
- Auxiliary structures

Why are these important?

Where do you find them?



### **Major Points**

Based on the Principle of Substitution which states:

"A prudent buyer will pay no more for a property than the cost of producing or creating an equally desirable property, providing no delay occurs in making the substitution". Equally desirable means the substitute does not have to be an exact duplicate, but contains similar utility and amenities as the existing structure.

However, while cost does <u>not necessarily</u> equal value - it can be a valid determinant of value and can be applied to most classes of property

Buildings are "broken down" for analysis and classified by type and quality; similar types usually have similar cost

#### The principal characteristics influencing cost:

- Design Type
- Construction Type

- Quality or Class
- > Floor Area or Square Footage
- > Building Shape

## Advantages:

Universal application to all types of real property

It is the principle (and sometimes only) approach for special purpose properties which rarely sell on the open market

It is well adapted and easily applied under a mass appraisal system

# **Disadvantages:**

The disadvantage is that it does not always include a highly reliable estimate of depreciation. The newer the structure, cost more reliable

In older structures, a large amount of depreciation would need to be estimated and subtracted from the cost new.

# **Reproduction vs Replacement Cost**



**<u>Reproduction Cost</u>** is the cost, including material, labor, and overhead, that would be incurred in constructing an improvement having <u>exactly</u> <u>the same</u> characteristics as the improvement in question.

**Replacement Cost** is the cost including material, labor and overhead, that would be incurred in constructing an improvement having the **same utility** to its owner as the improvement in question, without necessarily reproducing exactly, any particular characteristic of the property. Generally used for mass appraisal purposes. Gets rid of functional obsolescence(poor room arrangement) as tastes and preferences change.



Earlier we discussed the types of data that we needed to have for an appraisal, when we are doing the Cost Approach we need to focus on the following data points:

- Subject characteristics: design type, construction type, quality/class, square footage, building shape, etc.
- Construction cost figures
- Depreciation factors
- Land value

Replacement Cost New <u>less Depreciation</u> (RCNLD) = *Improvement* Value <u>add in Land Value</u> = Total Property Value or indicates <u>Market Value</u>

Basic process:

• First we need to determine the value of the site, to do this we start

by entering the subject data and determining the cost figures as of the

effective date of the appraisal. If needed, reproduction cost can be used but

generally you would focus on the replacement cost.

When would you want to use reproduction costs rather than replacement cost for

assessment purposes?

• Once we have determined the cost figures we need to estimate the accrued depreciation suffered by the improvements from all causes and then subtract the depreciation from the replacement cost new and then add the value of the land to arrive at the estimate of value.

When is the cost approach most applicable?

- Newer properties
- Site has unique / specialized improvements which have very few or no comparable properties on the market.
  - Churches
  - Schools
  - Industrial buildings



Types of cost estimates:

The first method is the *Quantity Survey* which is the **most detailed** of the costs approaches.

This is the **strictest application of the cost approach and parallels the original contractor's bid estimate** including estimating labor hours required and applying the cost to material and labor quantities AND applying an additional allowance for indirect costs such as insurance, overhead and contractor's profit.

Often this method looks like a contractors line item bid and requires a significant amount of work and a familiarity with constructions techniques, so it doesn't really fit within the constraints of mass appraising. It also **doesn't work for very old buildings as the quality of construction and the original costs are not applicable** unless you are doing a reproduction cost value. When the buildings are new and the appraiser has access to the construction bids this is the most accurate estimate of replacement cost. (cost of nails, screws, rebar, forms)

Next we have the *Unit-in Place*, which is where you estimate the **Vertical & Horizontal Costs** of the physical components in the structure, including in the cost the proper installation of the components.

This is also **referred to as the segregated cost method** and is a summation approach to determining the value. Cost of labor, materials, overhead and profit are combined into a unit cost for each portion of the building. Here you **add up the cost of the foundation**, **the walls**, **the roof**, **the doors**, **etc.**, **by counting and multiplying the number of each component by their costs**. This method helps the appraiser compute the cost of a building when the comparative method is not practical.

For example, if the building has 1,000 sq ft of flooring and you are installing carpet at \$4.35 you simply multiply these two together for your cost to replace, in this case \$4,350, you do that with each component and then sum them all together...again, this is not a very practical method for mass appraising properties

Finally, we have the <u>most widely used</u> method the *Square Foot method;* here we derive a cost per foot to build from market or published manuals, i.e. Marshall and Swift. This is **also known as the Comparative Unit method** which is most effective when used with buildings that are "common".

Basically there isn't anything "special" about the building being appraised and it is easily replaced by any suitable substitute. Here we simply identify the average cost per square or cubic foot to build a replacement structure and then multiply it by the square footage in the subject.

We will do an exercise together on the cost approach using this method in a couple of slides... But first lets talk about depreciation...



New home vs 20 year old home. Same floor plan New house will have higher market value Older home might need new roof.



Same home (Physical Depreciation) Effective Age, Condition Same floor plan Off Street Parking



For this session we are not going to focus on the methodology of how to determine depreciation, so we will simply identify the differences between the two types.

Accounting: Process of <u>allocating the cost</u> of tangible assets to expense in a systematic and rational manner to those periods to benefit from the use of the asset.

Appraisal: *Process of <u>measuring the loss in value</u> of an asset or group of assets. Not an exact answer, but there is a range of values.* 



Depreciation is the loss in value of a physical asset due to physical deterioration and / or obsolescence.

<u>Physical</u> Deterioration - *Results from wear & tear, use & abuse, inadequate repair, etc. (Normal Aging)* 

<u>Functional</u> Obsolescence - *Results from poor layout or design, under/over - improvement, change in tastes, nonconforming style.* Functional obsolescence are things that impair the functional capacity or the efficiency of the asset. Function of home not meeting current market demands. Defects within the property. **Small rooms to Open** 

Ask for examples from group:

External Obsolescence - Results from forces outside of the property, i.e. heavy traffic, excessive noise, unpleasant odors, physical hazards, etc. External on the other hand are things that occur that are outside of the control of the property owner and impacts the value of the property and are beyond the boundaries of the property. You can control

# physical/functional. Oversupplied market, very expensive financing, locational factor such as poor siting or proximity to a negative environmental influence.

Depreciation may be curable or incurable, in the former the depreciation is economically feasible to cure and are customarily repaired or replaced by a "prudent" owner. While in the later, you are dealing with depreciation that either cannot be cured or that wouldn't make sense economically to cure/correct. This often occurs when the cost of curing exceeds the expected increase in value.



The sales comparison approach is based on principle of <u>Substitution</u>, <u>Contribution</u>, and <u>Change</u>

<u>Substitution</u>: value of property tends to be set by the price that would be paid to acquire a substitute property of similar utility and desirability within a reasonable amount of time, <u>Contribution (shake roof, remodeled kitchen, fireplace how much will a fireplace contribute to a house in Alaska vs Arizona), and <u>Change (time-market value is influenced over time, wants change)</u></u>

Values tend to be set by the cost of acquiring a substitute property and the sales should meet certain criteria to be valid for sales comparison purposes. The comparability of a property is greatest when both sales and subject are influenced by the same physical, economic (state of economy, supply(whats available), income level, interest rates, regional employment levels), legal (taxation, zoning) and social factors (demographics, total population, age, education, crime level).

Smaller markets might have to compare one and two story homes.

There are four major types of adjustments that the appraiser must consider:

- 1) time of sale;
- 2) location;
- 3) physical condition;
- 4) <u>contributory value of components(Single vs double car garage or finished vs</u> <u>unfinished basement) (Hayden Home example, upgrades)</u>

The amount of adjustment is allocated by the contributory value rather than individual cost and the adjustments should be isolated and are always made to comparable properties, <u>never</u> to the subject.

Adjustments can be made on a lump-sum or a percentage basis, but this should be consistently applied to all of the comparable properties and the value estimates of the comparable properties are <u>**not**</u> averaged to produce a final value; rather the sale property needing the fewest adjustments is often considered a strong indication of value.

Interviews with buyers and sellers are the best sources for documentation of sales data while for residential sales, the local MLS provides a secondary source for the values. Sales of properties that have been exposed to the open market too long, not long enough, or not at all may not represent market value. The jurisdiction should monitor typical marketing time. The typical marketing time may be longer in a depressed market. What are markets currently doing?

Appraisers are data gatherers, we don't set the market.



So what data do we need to do the sales comparison approach?

Subject characteristics:

construction type,

design,

quality,

square footage,

age, etc.

Comparable sales data & characteristics

Examples of:

Valid sales (Arms length, willing/informed buyer, willing seller)

Invalid sales: Sales involving gov't agencies, exempt (churches, education institutions), financial institutions as buyer/seller, relatives, estate sales, forced sales from a judicial order may indicate the sale does not represent market value. Types of conveyance; property transfers conveyed through instruments such as quitclaim deeds, bargain and sale deeds, and sheriff

#### deeds may bear little relationship to market value.

#### Advantages

It is widely recognized as a reliable valuation approach by nearly all involved with real property values including: taxpayers, courts, salespersons, lenders, fee appraisers, & assessors. Appraisers are data gatherers, we don't set the market.

It is processed directly from the actions of buyers & sellers in the market and it is a true reflection of what buyers and sellers determine value to be and is easily understood by the general public.

Disadvantages:

There are instances when sufficient sales data may not exist, or the subject property is unique with no reasonable comparable sales available.

	SUBJECT	COMP #I	COMP #2	COMP#3	
SALE PRICE		\$175,000	\$183,000	\$186,500	
TIME ADJUSTMENT		\$10,500	\$3,660	NONE	
LOCATION	STANDARD	EQUAL	EQUAL	EQUAL	
SITE	STANDARD	EQUAL	EQUAL	EQUAL	
DWELLING TYPE	I STORY FRAME	EQUAL	EQUAL	EQUAL	
QUALITY	AVERAGE	EQUAL	EQUAL	EQUAL	
ROOFING	SHAKE	EQUAL	EQUAL	EQUAL	
SQ. FT. LIVING	1600	EQUAL	EQUAL	EQUAL	
# BEDROOMS	3	EQUAL	EQUAL	EQUAL	
# BATHS	2 1/2	EQUAL	EQUAL	EQUAL	
FIREPLACE	NONE	-1,500	EQUAL	EQUAL	
GARAGES	DOUBLE	\$4,000	EQUAL	EQUAL	
CARPORTS	NONE	EQUAL	(\$1,000)	(\$1,000)	
DECKS/PORCHES	I EACH	EQUAL	\$2,000	\$1,000	
AMENITIES	NONE	(\$3,000)	EQUAL	EQUAL	
OTHER					
INDICATED VALUE		\$185,000	\$187,660	\$186,500	
FINAL ESTIMATE					
OF VALUE	\$186,500				

In a perfect world, you would have similar houses in similar neighborhoods.

Adjustments determined from market

Comp # 1 has a fireplace, subject does not, so -\$1,500 was applied to comp. Comps 2 and 3 have carports, the subject does not so a -\$1,000 is applied to comps

Reconciliation: In the sales comparison approach, all three comparable properties were within the same neighborhood with no differences for location. Comp #3 required the least amount of total adjustments and therefore is considered to be the comparable that is most similar to the subject, providing the best indication of value.



The Income Approach is the third approach to value. This material is a high-level overview of the Income Approach as it applies to typical commercial properties. For those that want to learn in more detail the International Association of Assessing Officers, or IAAO for short, has a 30-hour, 4-day course on the Income Approach.

The Income Approach is based on the concept that the value of a property can be estimated based upon the income that the property achieves from rent combined with the expected future sale price of the property.

Investors have a wide variety of investment choices that are available to them. They can buy stocks, bonds, real estate, other alternative investments, or they can put their money in a savings account. No matter what investment they choose, what the investors have in common is that at some point when they exit the investment and cash out, they want to get their initial investment back, plus some profit as well. Investors getting their initial investment back is known as "return of" investment, and investors earning a profit on their investment is know as "return on" investment. Investors considering different options evaluate the risk versus reward of different investments, meaning they weight the risk of losing the invested funds as compared to the reward of the potential profit.

In many ways, savings accounts and real estate are at opposite ends of the "risk/reward" spectrum and the characteristics of each investment can be compared and contrasted. In terms of the pros of savings accounts, savings accounts are very safe and low risk; the money deposit is usually insured against loss by the FDIC. A savings account can be opened with a small amount of money, and it's very liquid, meaning that the money in the account can be quickly and easily withdrawn. Savings accounts are also very passive investments since an investor can just deposit money and receive interest without any additional effort. The cons of savings accounts are that investors don't earn typically very much interest, in the sense that these accounts usually earn less than other investments and over periods of time don't even keep up with inflation. In addition, savings accounts do not have any income tax advantages, and there is no ability to leverage.

In contrast to savings accounts, real estate can be risky, because there is no guarantee against loss. Real estate is not a liquid investment, because the invested funds cannot be easily or quickly accessed without selling the property or borrowing against its value through "cash out" refinancing. Real estate requires a larger initial investment than savings account, and it also requires property management, so it is not a passive investment. Property management refers to the need to oversee tasks such as the maintenance of the property, the payment of the taxes, insurance, etc. Other examples of managerial decisions are the type of property to be purchased; whether to make repairs, capital improvements or renovations; hold the real estate, sell it, or refinance it.

Real estate investing is risker, less liquid, and requires more work than a savings account, but there are also advantages. Even though real estate has no guarantees against loss like an FDIC insured savings account, real estate typically tends to appreciate over time and can be used as a hedge against inflation. Also, real estate usually has tax advantages as compared to other investments. Real estate investors can often reduce, defer, or eliminate income taxes.

Real estate also allows for the use of leverage. Leverage is the borrowing of money in hopes of earning a greater return than the cost of the borrowed funds. The basic process is that an investor makes a down payment and borrows the rest of the purchase price to buy a commercial property. The investor then rents out the property and nopes to generate more each month in rental income than the cost of the mortgage, thereby earning a profit.

This concept of renting out a property and generating an income stream is what ties in with the Income Approach. Real estate investors are buying the physical land and buildings, but they are also buying the legal ability to receive a periodic and/or ongoing income stream. These income streams can be analyzed and evaluated to derive the value of a property.

When we look at the income stream, we want to think in terms of quantity, quality, and duration. Quantity means the amount of rent that landlord will get. Quality in this case refers to the likelihood that the landlord will continue to get the rent every month, compared to the risk that the tenant will miss rent payments. And duration refers to how long the income stream is expected to stay in place.

The relationship between a property's income stream and the value of the property can be expressed by the acronym "IRV".



"IRV" is an acronym that stands for Income, Rate, and Value. There is a mathematic relationship between Income, Rate, and Value, wherein if you know two, you can solve for the third.

- Talk through slide and relationship between I, R,
- Åfter algebraic discussion elaborate on each I, R, V in turn
- 1. "I", or Income, refers to NOI or Net Operating Income. This is equal to the total amount of income from rent minus expenses (vacancy, collection, maintenance, utilities, management, etc.)
- 1. "R" equals the rate, known as the capitalization rate or "cap rate". In direct capitalization, the cap rate reflects the relationship between a single year's net operating income and the total property value. R can also be thought of as the annual NOI being a certain percentage of the value of the property. R is derived from the market and from published sources.

1. V= property value. This is the variable appraisers are solving for, by using the two known values of "I" and "R".

There are also times we may know what "V" is, because it's a recent sale comp, and we want to figure out what "I" or "R" is. The next few slides we will look some basic examples of how to use the IRV formulas.



Let's take a look at the formula on this slide. I'm going to set my phone stopwatch for 30 seconds to give everyone a chance to solve this. Please go ahead and put your answers in the chat box and then we will go over this.

\*\* JUST KIDDING\*\*



In this example, we know R and V, and we are looking for I. For example, if a property sells for \$2,000,000 and the broker or someone knowledgeable about the sale tells us that the cap rate was 10%. \$2,000,000 times 10 percent equals \$200,000, so we now know that the I (NOI) was \$200,000.



In the next example, we know I and V, and we are looking for R. We learn about another nearby property that also sold. The broker doesn't remember the cap rate, but she remembers that the NOI was \$100,000. We look up the sale price and find that it was \$1,000,000, so with an 1 of \$100,000, we now know that the R must have been 10%.



So after this market research and a bunch of other research, we feel pretty confidant that 10% is the most likely cap rate to use. We find out that our subject property has an NOI of \$800,000, so we divide the \$800,000 by the 10% cap rate and get a value of \$8,000,000 for the subject property.

OK so key takeaways-

The Income Approach is based on the concept that the value of a property can be estimated based upon the income that the property achieves from rent combined with the expected future sale price of the property.

Investors getting their, initial investment back is known as "return of" investment, and investors earning a profit on their investment is known as "return on" investment.

Commercial property is attractive to investors because they can buy it using leverage (debt) and receive tax advantaged income streams.

The income streams can be analyzed and processed into a value indication using the IRV formula, where IRV means income, Rate and Value. If we know 2 of the 3 parts of IRV, we can solve for the  $3^{rd}$  part.

In a few minutes TJ is going to come back and talk about Reconciliation of the three approaches to value. Before he does that, I'm going to talk a little bit about how and why counties can get appraisal assistance from DOR.



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What is the VAT and why is there a VAT? VAT stands for Valuation Advisory Team. The Valuation Advisory Team provides valuation advisory assistance to counties in the form of appraisals of complex properties (advisories) and consultations on appraisal related issues. In 2009, "The Annual Revaluation Bill" substitute Senate Bill 5368 had a stipulation that the Department of Revenue appraise complex properties whose value is \$25 million and above, when the counties request assistance.

The way this works is that each year the VAT supervisor Tim Landregan will reach out to the counties to see if any advisory appraisals are needed. There are times we can do appraisals of noncomplex properties that are assessed below \$25 million, for example if our workload allows for that and we have some newer people that could benefit from the on the job training. We also do appraisal consulting outside of the advisory appraisals, meaning we are available to answer appraisal methodology related questions and sometimes assist with appeal preparation.



Consider all three approaches to value

Review of available data:

Validity; Pertinence; Consistency; Quantity & Quality

Should fall within the final range of values indicated by all approaches

Final estimate of value should **<u>never</u>** be averaged - it should come from appraiser's reasoning & judgment of all market evidence

