

# **APPENDIX C**

## **Appraisal Methods**

# APPRAISAL METHODS

## MARKET VALUE

Idaho's property tax is based on the market value of property. Section (§) 63-201(15), Idaho Code (I.C.), defines market value as "...that amount of United States dollars or equivalent for which, in all probability, a property would exchange hands between a willing seller, under no compulsion to sell, and an informed, capable buyer, with a reasonable time allowed to consummate the sale, substantiated by a reasonable down or full cash payment."

The assessor is responsible for determining the market value of all locally assessed property for property tax purposes within his jurisdiction that is not expressly exempted. The amount of United States dollars for which a property is most likely to sell is not necessarily the actual sales price. Motivations, negotiating skills, market knowledge of buyers and sellers vary, so a particular sale may not reflect "market value." Given access to enough information about the sales of properties, the assessor can determine a property's most likely selling price.

Several criteria must be met for a transaction to qualify as an arm's-length sale and be included with other arm's-length sales in the analysis of market value. The July 2007 Edition of the Standard on Ratio Studies from the International Association of Assessing Officers provides that every arm's-length sale should be included in the analysis unless data for the sale are incomplete, unverifiable, or suspect, the sale fails to pass one or more specific test of acceptability, or a representative sample of sales that occurred during the study period can be randomly selected to provide reliable statistical measures. This standard also identifies sales which can be automatically excluded from the analysis unless a larger sample is needed or further research is conducted to determine that the sales are open-market transactions. The types of sales which may be automatically excluded are: sales involving government agencies and public utilities; sales involving charitable, religious, or educational institutions; sales involving financial institutions; sales between relatives or corporate affiliates; sales of convenience; sales settling an estate; forced sales; or sales of doubtful title. More detail on concerns relating to these types of sales and other types of sales may be found on pages 74 through 76 of the standard.

## Appraisal Date

An appraisal is an estimate of value for a particular property, as of a specific point in time. The purpose of a mass appraisal is to estimate the values of all properties within a jurisdiction. To insure that all assessments are made on the same basis, an appraisal date has been established.

In Idaho, all property is assessed annually as of 12:01 A.M. on the first of January in the year in which the taxes are levied. For example, the appraisal date for the 2014 assessment year would be 12:01 A.M., January 1, 2014. An appraisal for property tax purposes should reflect a property's value as of the lien date (January 1). (§§63-205 and 63-206, Idaho Code, I.C.)

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## **The Principle of Substitution**

One concept of central importance in an appraisal is the principle of substitution. That is: "A buyer will pay no more for a property than he would to purchase an equally desirable property, assuming no undue delay." In other words, the market value of a property is the amount for which comparable property typically sells. The principle of substitution is central to appraisal regardless of the method used to determine market value.

## **The Three Approaches to Value**

The three approaches to value – Comparative sales (Market), Income and Cost – are used to determine market value. Each allows the certified property tax appraiser to use different information to estimate market value. The assessor is required to consider each approach when estimating market value (Property Tax Rule 217.02). Although one or more of the approaches might not be applicable to a specific property, each must be considered and the certified property tax appraiser should be able to explain why any approach was not used.

## **The Comparative Sales Approach**

The comparative sales approach is central to all three approaches to value. To a greater or lesser degree, all approaches are based on the comparative sales approach. The comparative sales approach is merely an analysis of the recent market history of properties comparable to the property being appraised. Put differently, market value, as determined by the comparative sales approach, is the price typically paid for comparable properties.

Research is required to discover the typical sale price for a specific type of property, in a certain condition, and in a particular location. Only by examining a number of sales can the certified property tax appraiser be certain of what constitutes typical value. There are different ways to implement the comparative sales approach. Each utilizes sales information in a slightly different manner.

The comparative sales approach is a direct comparison of sales of properties comparable to the property to be appraised (the "subject property"). For a property to be comparable to the subject, it must be similar in a number of respects. Construction, location, physical condition, remaining economic life, and functional utility must be similar. The greater the similarity between properties, the more comparable the properties are and the greater the likelihood that the arm's length sale price of one property reflects the market value of the other. By examining a number of sales the certified property tax appraiser can determine a typical value.

Few properties are identical, but there are methods to adjust for differences between otherwise similar properties. The most accurate method is to let the market determine the

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value of the differences, based on the principle of contribution. [Check glossary and IAAO's Property Assessment Valuation (PAV), Second Edition, 1996, pg. 22-23].

For example, let's assume that two residential properties are located side by side. The only difference between them is that only one house has a fireplace. Both properties sell on the same day. The property with the fireplace brings \$1,000 more than the property without. Moreover, throughout the county, houses with fireplaces typically sell for \$1,000 more than those without. This demonstrates when valuing property in this county the contributory value of a fireplace is \$1,000.

## Rent Multipliers

Rent multipliers are normally regarded as a function of the comparative sales approach. A rent multiplier is a factor which, when applied to income (normally potential gross income), produces an estimate of property value. In other words, a rent multiplier is the number of times a rent must be paid to equal a property's market value.

There are two common types of rent multiplier.<sup>1</sup> The first is the "gross income multiplier" (GIM). This multiplier reflects the number of times that one full year's rent must be paid to equal the value of the property. The second type is the "gross rent multiplier" (GRM). This multiplier reflects the number of times that one month's rent must be paid to equal the value of the property.

For example, if economic rent (Glossary and IAAO's PAV, Second Edition, 1996, pg. 204-205) for a single-family residence were \$750 per month, and if the market value of that residence were \$100,000, the indicated monthly GRM would be 133, or \$100,000 divided by \$750. Obviously, the GRM is a number 12 times greater than the GIM. Therefore the annual GIM would be 11.11.

$$\$100,000 \text{ (the property's value)} / \$750 \text{ (The property's monthly rent)} = 133 \text{ (GRM)}$$

or:

$$\$100,000 \text{ (the property's value)} / \$9,000 \text{ (the property's annual rent)} = 11.11 \text{ (GIM)}$$

Although usually considered to be an application of the income approach, when rent multipliers are used to appraise residential property, their use is considered an application of the comparative sales approach. Even so, their use is identical in both cases.

Rent multipliers must be developed from properties which are very similar. The properties must be of the same type, in comparable locations, having similar land-to-building ratios and improvements must be of the same age and physical condition.

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<sup>1</sup> *Property Appraisal and Assessment Administration*; Chicago; The International Association of Assessing Officers; 1990; p. 269

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## The Cost Approach

The second approach to value is the cost approach. Since it readily lends itself to mass appraisal, it is widely used for assessment purposes. The cost approach to value is the process of determining the cost new of replacing or reproducing a particular property, then subtracting from the cost new the loss in value from all forms of depreciation the property has accrued up to that point. The process can be described as follows:

$$\text{COST NEW} - \text{DEPRECIATION} = \text{CURRENT VALUE}$$

When using the cost approach to appraise real property, land and buildings are treated separately, since land is not constructed and does not depreciate. The land value is normally estimated through the comparative sales approach and its value is added to the value of the improvements.

### COST NEW

Cost new can be expressed in four ways: reproduction cost, replacement cost, historic cost, and original cost. There are significant differences between them. The cost of construction includes all direct and indirect costs. (Glossary, PAV pg. 130)

Reproduction Cost: Reproduction cost is the cost of replacing a property with an exact duplicate. It is an accurate indicator of value for most types of property only if that property reflects functional utility typical today and is constructed from materials currently used. In most cases, the property must have been built recently. Reproduction cost is typically used to appraise improvements having value by virtue of something other than their functional utility -- historical buildings or new building with no income history, for example.

There are problems inherent in using reproduction cost. Construction materials and methods constantly evolve, so reproducing an improvement is often more expensive than it was to originally build. The additional expense is rarely realized in the property's sale. Older construction normally lacks an amount of contemporary functional utility. (Glossary, PAV pg. 154) For example, today's ceilings are lower to provide for more efficient heating. Electrical wiring, plumbing, and floor plans are different today. Today, increased functional utility is provided at a considerably reduced cost. Functional utility is a major factor affecting the value of any property, but reproduction costs may not reflect today's costs of functional utility. Reproduction cost is typically used for insurance purposes.

Replacement Cost: Replacement cost is the cost of replacing the functional utility of an improvement. It is used to appraise most conventional properties and also, eliminates many of the problems associated with reproduction cost. Replacement cost takes care of changes in construction materials and technology while expressing the

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improvement's value in terms of the contemporary cost of functional utility. Current costs are more readily available and easier to determine than historic ones. Replacement cost is based on the current market, so information is more abundant. As a result, replacement cost for most properties is usually considered a more accurate estimate than reproduction cost.

Because replacement cost interprets a property's utility in terms of today's costs, it accounts for functional obsolescence. It is by far a more accurate expression of cost new for older properties than is reproduction cost.

Historic Cost: Historic cost is the original construction cost. Obviously, if an improvement is very old, the costs of construction may have changed dramatically, so historic cost must be adjusted for inflation to reflect today's dollars. Even then, historic cost will probably not reflect contemporary functional utility, so it is generally not regarded as an accurate indicator for most types of property. It is most frequently used in the valuation of short-lived items, like personal property, and in the valuation of rate-based utilities.

Original Cost: Original cost is the price paid for a property by its original owner. While not recommended for determining construction costs, original cost does have uses. Original cost (of improvements only) reflects all accrued depreciation. The difference between replacement cost new and original cost on the date of sale is the basis for determining depreciation from the market.

Determining Cost New: Four methods are commonly used to determine typical cost new: the quantity survey (also called engineering breakdown) method, the unit-in-place method, the square-foot method, and trending. There are advantages and drawbacks to each.

Quantity Survey (Engineering Breakdown): Typically used by architects and engineers, the quantity survey requires the identification of each individual component of an improvement -- each board, nail, and screw -- and determining the installed cost for each. The costs of all the components (including site preparation, permits, etc.) are totaled to determine cost new. One example of use would be for remodeled houses. Though regarded as one of the most accurate methods of determining the cost new of recent construction, the quantity survey's disadvantage is that its use requires considerable time and expertise. These facts generally make it unsuitable for mass appraisal purposes.

Unit-in-Place (Segregated Cost): The unit-in-place method measures either reproduction or replacement cost. It is slightly less accurate than the quantity survey for estimating reproduction cost, but it requires less time and expertise. The unit-in-place method involves determining the installed cost of groups of components. It is not necessary to identify each individual nail, board, and screw in a structure; their value is included in more generalized components, such as foundation, roof cover, cabinetwork, or

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exterior siding. As with the quantity survey, the value of the components is totaled to determine cost new of the building.

Because it is generally accurate and does not require a great deal of time, this method is frequently used in mass appraisal. Many cost manuals, including the Marshall Valuation Service, contain sections for use with the unit-in-place method.

Square-Foot (Comparative Unit): The square-foot method is the method most commonly used in mass appraisal for determining cost. It involves classifying improvements by type, using basic specifications, converting total cost of comparable improvements to dollars per unit (square-foot) or per volume (cubic-foot). Other than trending, the square-foot method is the quickest and easiest method available to the certified property tax appraiser. Moreover, if the improvement has been accurately classified, it is normally very accurate.

Trending (Factoring): The fourth method of determining cost new is trending, also called "factoring". Trending is nothing more than multiplying an inflation adjustment factor by a cost new determined at some point in the past. If, for example, a building was constructed five years ago for \$100,000 and the cost of similar construction has increased 10% since that time, Trending would indicate a current Cost New of \$110,000 -- ( $\$100,000 \times 110\%$ ). Care must be taken that the cost to be trended is correct, or trending cannot be used.

Though less accurate than other methods, trending is the quickest method available and, if properly used, has value in a mass appraisal program. Trending becomes less accurate as the value to be trended becomes older. Factoring a three-year-old cost new produces more accurate results than does factoring a fifteen-year-old cost new. Moreover, factoring a value which already the result of a trend compounds the inherent inaccuracy of the method.

## Depreciation

Depreciation is the accrued loss in value from cost new attributable to any cause. Depreciation is caused by physical deterioration, functional obsolescence, and economic obsolescence. Accurate measurements of depreciation are essential for accurate cost approach estimates.

Depreciation is said to be either curable or incurable. Identifying depreciation as curable or incurable is necessary to determine the method used to measure accrued depreciation.

Physical Deterioration: Improvements can be expected to last for a period of time (economic life). Economic lives vary due to the type of improvement, the use and maintenance it receives, and the quality of construction. As a structure ages, its remaining economic life (REL) decreases. Renovation and remodeling can extend an REL, but eventually, the costs involved outweigh the value such renovations will add

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to the property. At this point, the improvement has reached the end of its economic life.

Physical Deterioration is said to either be curable or incurable, depending on the cost to cure. The cost at which it becomes incurable depends on the principle of contribution; at some point the expense to cure a problem becomes greater than the benefits derived from the cure. For example, the cost of replacing broken windows rarely outweighs the value which new windows would add to the building's resale value. Such depreciation is normally considered curable. On the other hand, it is possible, but expensive, to replace a foundation. By the time a building reaches the age when its foundation needs to be replaced, the cost of replacing the foundation usually exceeds the value of the building, even with a new foundation. In this situation, the physical deterioration is considered incurable.

Functional Obsolescence: The ways in which a property can be utilized -- a property's functional utility -- contributes greatly to value. At a given time, in a given market, property buyers prefer certain uses or manners of use for various types of property. More is paid for properties which can be used in preferred ways. Functional obsolescence is an absence of functional utility. The loss in value is inherent in the property, but not caused by physical deterioration.

For example, ceilings were once higher than those of today. Higher ceilings require more energy to heat the room. Today's energy costs are greater than they were in the past. Consequently, buildings with high ceilings will tend to sell for less than will comparable buildings with lower ceilings. This loss in value is inherent in the property, itself, but is not the result of physical deterioration.

Functional obsolescence is either curable or incurable -- again, depending on the principle of contribution. At some point, the cost to cure the problem is greater than the benefits from the cure.

An example of curable functional obsolescence would be a five-bedroom single-family residence with only one bathroom. Today's typical buyer of five-bedroom homes has several children, so the need for two bathrooms is obvious. The extra bathroom would increase the sale price of the home enough to justify the expense of installation.

An example of incurable functional obsolescence would be a single-family residence with a poor floor plan. Moving the structure's internal walls would normally be so expensive that the cost would not be realized at resale.

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Economic (External) Obsolescence: Economic obsolescence is a loss in value from causes outside the property, itself. An example of economic obsolescence would be a residence adjacent to a sewage treatment plant. Though there may be nothing wrong with the property, itself, its location near the sewage treatment plant will likely cause the property to sell for less than if it were located in a more favorable area. For all practical purposes, economic obsolescence cannot be cured.

**Measuring Depreciation:** Several methods can be used to measure depreciation. Any type of depreciation can be measured by its effect on market value. If the assessor has a sufficient amount of sales information, the loss in value from any type of depreciation can be measured directly from the market. If sufficient sales are not available, though, the assessor must resort to other methods.

Depreciation resulting from physical deterioration or functional obsolescence can be measured in several other ways. The most commonly used measurement is determining the cost to cure the problem. The cost to cure is equal to the amount of depreciation. For example, if a house requires repainting amounting to \$1,100, the loss in value to the property would also be considered \$1,100.

Functional obsolescence can also be measured by rent loss. For example, let's assume that two four-bedroom single-family residences sit side by side. Both are rented. The only difference between these properties is that the first has two bathrooms; the second has one. The first rents for \$450 per month; the second rents for \$400 per month. In this particular area, the monthly gross rent multiplier is 135. Thus, the loss in value due to the absence of the second bathroom (functional obsolescence) is \$6,750 (or \$50 x 135).

Depreciation can also be measured through rental loss. For example, a residential property located next to an airport (economic obsolescence) can command less rent than a comparable property located in a more favorable area. The loss from economic obsolescence can be measured by determining the difference between the two rents and applying the appropriate gross rent multiplier to that difference. (For improved properties, the loss must be allocated between land and improvements--usually based on the land-to-improvement ratio.)

## The Income Approach

The income approach is the third method of estimating value. The price paid for a property represents the current value of the future benefits of owning the property. The benefit of owning an income-producing property is the future income stream that property will generate. The income approach is simply a method of measuring the present value of the future income from a property. There are two basic methods of applying the income approach: capitalization and rent multipliers. Normally, capitalization deals with net income and rent multipliers deal with gross income.

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## Gross Income:

The income approach deals with rent, since rent is the income directly generated by the property, itself. In other words, the certified property tax appraiser valuing a factory which produces baby bottles is directly interested in the factory's economic rent and only indirectly interested in the value of the bottles the factory can produce. (A factory that can produce more bottles would command a greater rent.)

The certified property tax appraiser is interested in the rent which a particular property would typically command, called "economic" or "market" rent. Just as the actual selling price of a particular property may not reflect market value, the actual rent paid for a property (contract rent) may not be market rent. The certified property tax appraiser must analyze a number of contract rents to determine economic rent.

The certified property tax appraiser is concerned with two types of gross income. The first is "potential gross income". Potential gross income is the amount of rent a property would generate under conditions of economic rent and 100% occupancy for a year. If economic rent for a six-unit apartment were \$500 per unit per month, the potential gross income of the apartment is \$36,000 ( $\$500/\text{unit} \times 6 \text{ units} \times 12 \text{ months}$ ).

The second type is "effective gross income" (EGI). Properties typically are not rented at 100% occupancy for extended periods. For example, an apartment building normally experiences tenant turnover during a year. When a tenant leaves, a period of time is necessary before the apartment can be rented again, resulting in an income loss. Moreover, some rents normally remain uncollected, resulting in an additional loss. In a given area, with a given type of property, there will be a typical income loss due to these uncollected or uncollectible rents and from vacancy. EGI is the typical vacancy and collection loss subtracted from the potential gross income, plus any miscellaneous or service income. The potential gross income of a six-unit apartment building is \$36,000. A vacancy rate of 5%, \$1,800, is typical for the area. The apartment's pop machine grosses \$700 annually. The effective gross income of the apartment is \$34,900 ( $\$36,000 - \$1,800 + \$700$ ).

## Net Income:

Net Income is the money remaining after a property's operating expenses and reserves for replacement are satisfied. Only operating expenses attributable to the property are to be considered. Therefore, expenses such as personal income taxes would not be deducted. Operating expenses should be annualized. Some expenses occur only occasionally; a building may require a new roof once every ten years. This expense should be set up as a reserve for replacement by prorating the life of the roof. If a new roof costing \$10,000 is required every ten years, the annual expense for the roof would be \$1,000, or  $\$10,000$  divided by 10 years.

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The term net income is used in several ways. Each use is described by a slightly different name and depends on the expenses which have been extracted from the effective gross income.

*Net Income:* This vague term does not indicate which expenses have been extracted from potential gross income.

*Net Income before Recapture and Taxes (NIBR&T):* This term refers to a net income from which all operating expenses, except for recapture and property taxes have been extracted. (This will be explained later in the chapter.) See page 10.

*Net Income before Taxes:* This term refers to a Net Income from which operating expenses and recapture, but not property taxes, have been extracted.

*Net Income after Recapture and Taxes --* This term refers to a net income from which operating expenses, recapture, and property taxes have been extracted. This is the amount of money the owner can keep.

Gross rent multipliers are normally regarded as a function of the sales comparison approach. The use of the gross rent multiplier (normally monthly gross rent multipliers) to appraise residential property is sometimes used to represent the income approach. The gross rent multiplier has been discussed under the comparative sales approach to value.

## Capitalization

Capitalization is a process in which a rate of return is applied to net income to estimate property value. There are a number of capitalization methods, including direct capitalization, straight-line capitalization, yield capitalization, and mortgage-equity capitalization. Although there are differences between these methods, (insofar as net income is determined and the capitalization rates which are used) the basic steps in the capitalization process are as follows:

1. Estimate potential gross income.
2. Deduct for vacancy and collection loss.
3. Add miscellaneous income or service income.
4. Arrive at effective gross income.
5. Deduct operating expenses and reserves for replacement.
6. Arrive at net income (before discount, recapture and taxes).
7. Select proper capitalization rate.
8. Capitalize net income into estimated property value.

Capitalization Rates: A capitalization rate is a number, which when divided into net income, produces an estimate of property value. For example, if net income were

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\$10,000 and the capitalization rate were .10 (10%), the indicated value would be \$100,000.

$$\$10,000 (\text{Net Income}) / .10 (\text{Capitalization Rate}) = \$100,000 (\text{Property Value})$$

A capitalization rate may contain components for discount, recapture, and property taxes.

*Discount Rate:* Discount is the return on an investment. (PAV, pg. 230)

*Recapture Rate:* Recapture is the return of an investment. (PAV, pg. 230)

Recapture is applied only to wasting assets. Land is not a wasting asset, so recapture is applied only to improvements. In a real estate transaction, a portion of the sale price is attributable to land and a portion is attributable to improvements. The owner must recapture the price he paid for the improvements over the economic life of the improvements. The rate at which he does this is called the recapture rate.

With the straight-line method, the recapture rate is the reciprocal of the remaining economic life (REL) of the improvement. For example, a building with a remaining economic life of 33 years would require a recapture rate of .03 (3%).

$$1/33 (\text{REL}) = .03$$

*Tax Rate:* Property taxes are levied against a property as a percentage of the property's value, called the effective tax rate. For example, if the taxes due on a property worth \$100,000 were \$1,000, the effective tax rate would be .01 (1%).

$$\$1,000 / \$100,000 (\text{Property Value}) = .01 (\text{Effective Tax Rate})$$

## Developing Capitalization Rates:

Capitalization rates can be developed in several ways. They can be taken directly from the market, developed through the band of investment, abstracted, or "built up".

*Capitalization Rates Taken Directly from the Market:* The simplest and most accurate way to develop a capitalization rate is directly from the market. In this process, a property's sale price is divided by its net income. The result of is an overall rate (OAR). The OAR is a weighted average of land and building capitalization rates and contains components for discount, recapture, and taxes.

A number of similar properties must be examined to determine this rate. Adjustments must be made for different effective tax rates between the properties. Sales used to develop rates must be of comparable properties: income-to-expense ratios, land-to-building ratios, ages of improvements, locations, and the physical condition of the improvements must be similar.

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Let's assume that four properties, comparable in all respects, including effective tax rate, have recently sold. Property "A" sold for \$100,000 and has a net income before recapture and taxes of \$12,000. Property "B" sold for \$120,000 and its NIBR&T is \$13,300. Property "C" sold for \$90,000 and its NIBR&T is \$11,600. Property "D" sold for \$120,000 and its NIBR&T is \$14,400. The typical overall rate for these properties would be determined from the market as follows:

Property "A":  $\$12,000/\$100,000 = 12.0\%$

Property "B":  $\$13,300/\$120,000 = 11.1\%$

Property "C":  $\$11,600/\$90,000 = 12.9\%$

Property "D":  $\$14,400/\$120,000 = 12.0\%$

The indicated Overall Rate, then, would be 12.0%.

A rate developed from market sales should normally be used with Direct or Straight-line Capitalization.

*Capitalization Rates Developed through the Band of Investment:* The band of investment is used to produce a discount rate. This discount rate is a weighted average of the cost of the money necessary to purchase the property, plus the prevailing rate of return on equity. To this discount rate is then added the effective tax rate and a component for the recapture of improvements.

For example, let's assume that, for a particular type of property, 70% of the necessary money is available under a first mortgage at 10%, 15% is available under a junior mortgage at 12%, and that the equity position requires a return of 16%. The effective tax rate in the area is 1.4% and the improvements have an economic life of 33 years. The appropriate rates would be developed through the band of investment as follows:

<u>Band of Investment</u>			
1 <sup>st</sup> Mortgage	(70% @ 10%)	.70 x .10	= .070
2 <sup>nd</sup> Mortgage	(15% @ 12%)	.15 x .12	= .018
Equity	(15% @ 16%)	.15 x .16	= .024
DISCOUNT RATE			= .112 (11.2%)

<u>Land Capitalization Rate</u>		<u>Building Capitalization Rate</u>	
Discount Rate	11.2%	Discount Rate	11.2%
Effective Tax Rate	01.4%	Effective Tax Rate	01.4%
CAP RATE	12.6%	Recapture Rate	03.0%
		CAP RATE	15.6%

A rate developed in this manner, through the band of investment, should be used only with yield capitalization. If a rate developed through the band of investment is to be used

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with direct or straight-line capitalization, an adjustment for income taxes must be made to the debt component of the discount rate. This is done by multiplying the debt portion of the rate by one minus the income tax rate.

For example, assume that the typical buyer of the property had an income tax rate of 30%. The debt portion of the discount rate should be multiplied by 70%, or 1 - 30% the discount rate would be computed as follows:

	<u>Band of Investment</u>			
1 <sup>st</sup> Mortgage	(70% @ 10%)	.70 x .10 x .70	= .0490	
2 <sup>nd</sup> Mortgage	(15% @ 12%)	.15 x .12 x .70	= .0126	
Equity	(15% @ 16%)	.15 x .16	= .0240	
		DISCOUNT RATE	= .0856 (8.56%)	

*Capitalization Rates derived from the "Built-Up" Method:* The built-up method is not generally recommended. This method is simply an adding together of theoretical rates and, therefore, cannot be proved in the market.

## Capitalization Methods

As was mentioned, there are several different methods of capitalization. The differences between these methods involve different capitalization rates, and, often, differences in the way in which net incomes are measured. The two methods most commonly used for mass appraisal purposes are direct capitalization and straight-line capitalization.

*Direct Capitalization* -- Direct capitalization is a method by which only one capitalization rate, called the "overall rate" (OAR), is used to convert typical current net income into an estimate of market value. The overall rate is a weighted average of the building capitalization rate (which includes recapture) and the land capitalization rate (which does not include recapture). Direct capitalization is only appropriate under the same circumstances which allow for the use of gross rent multipliers. That is to say: the properties from which the overall rate is developed must have comparable locations; similar land-to-building ratios; similar income-to-expense ratios; and improvements of the same age, type and physical condition.

*Straight-line Capitalization* -- Straight-line capitalization is a method by which two different capitalization rates are used to convert typical current net income into an estimate of market value. Straight-line capitalization utilizes separate capitalization rates for land (which does not include a rate for recapture) and for improvements (which does include a rate for recapture).

Straight-line capitalization is frequently used in a capitalization technique called a "residual," to determine the value of property when the value of either the land or the building is known. If the value of the land is known, the process is called a "building

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residual;" if the value of the improvements is known, the process is called a "land residual."

*Yield Capitalization* -- This method is less frequently used in mass appraisal because it requires more time and a greater degree of judgment than either direct or straight-line capitalization, since future income must be projected and discounted to reflect current value.

*Mortgage-Equity Capitalization* -- This method is rarely used in mass appraisal because it requires more time and expertise than either direct or straight-line capitalization. This method is primarily used in finance disciplines and will not be discussed at length in this chapter.