

Perspectives on the Income Approach

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Modern appraisal theory is eclectic in the sense that it has been built upon the basis of theories of value and valuation developed by economists, supplemented by depreciation and annuity theories contributed by accountants and writers in the fields of corporation finance and investments.—PAUL F. WENDT

The above statement¹ nearly summarizes entirely the development of appraisal theory. There was no appraisal “symposium in the sky” where it all came together. No one man or two or three men (or women) can lay claim to the development of appraisal theories. The development of appraisal theory and practice has been one of evolution, sometimes almost as slow but never as sure and precise as our own.

The doctrine of *justum pretium*, or just price, used in the Middle Ages held that price equaled the cost of production.² It is readily apparent that it may sometimes be valid to argue that “your appraisal methods are right out of the Middle Ages.” There are still those who maintain that the *cost of production* will provide the most valid evidence of the value of a property.

The classical economists, in the mid-1800s, began to dissent from earlier theorists and hold that *market value* and *exchange value* were more pertinent to the worth of property. In addition, the Austrian school of economists argued that market values may vary, regardless of cost, and also introduced the idea of discounting future returns to estimate value.³

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¹ Paul F. Wendt, *Real Estate Appraisal: Review and Outlook* (Athens: University of Georgia Press, 1974), p. 16.

² *Ibid.*, p. 17.

³ *Ibid.*

If there was a time to which we could point and say "it happened then," it would have to be from 1903 to 1937, which amounts to not being able to pinpoint it at all. It seems that economists, financial analysts, accountants, and appraisers "got it all together" in this time span. Many of the basic theories under which we operate today were developed during that time. It was during this time that Alfred Marshall set forth the three methods still in use today for estimating value. In 1925 he stated: "The capitalized value of any plot of land is the actuarial 'discounted' value of all the net incomes which it is likely to afford."⁴ We find that today's appraisal practice utilizes this theory of discounting future returns to obtain an estimate of present worth in all the current methods of capitalization.

In 1903, Richard M. Hurd also referred to exchange value. Perhaps the most significant works of this period came from two men, James C. Bonbright and Frederick M. Babcock. Bonbright, in 1937, in *The Valuation of Property*, a two-volume treatise on existing appraisal theory and practice of that time, presented many new and innovative ideas that are still valid today. Regarding the income approach, a few of his comments included the following: "The capitalized-income method . . . in its more usual form . . . involves capitalization or discounted valuation of the realized or prospective net monetary income derivable by continuous exploitation rather than by resale"⁵ and "the present value of . . . property is merely the present, discounted value of the anticipated net intakes or saved net outlays."⁶ He might have been the forerunner of after-tax cash-flow analysis as he refers to "net intakes or saved net outlays." In terms of current practices of forecasting future income streams rather than valuations based solely on past performance, Bonbright was particularly perceptive when he stated that the "value of a business depends solely on prospective earnings."⁷ Bonbright also wrote of the "stock and bond" method of enterprise appraisal. This technique was for use where there was no market from which to derive sales data. He suggested using the bondholders' interest as representing the debt portion of the rate (capitalization rate) and the stockholders' equity representing the "equity" portion of the rate. This author, in a paper presented at the AIREA, SREA, and IAAO Professional Seminar (1977), used a similar method in arriving at a discount rate in the valuation of the leasehold interest on industrial properties located within industrial development authorities that are exempted from tax by the local jurisdiction. The same methodology is also currently employed by many

⁴ Ibid., p. 18.

⁵ James C. Bonbright, *The Valuation of Property*, 2 vols. (New York: McGraw-Hill, 1937), 1:230.

⁶ Ibid., p. 231.

⁷ Ibid.

public utility appraisers attempting to build a "quasi" market rate without market sales of properties. The sale of stocks and bonds and the study of the ratings of comparable properties provide at least one viable alternative. It is, however, not a new idea or method.

The single most significant contribution, if one had to be singled out, would be *The Valuation of Real Estate*, by Frederick M. Babcock, written in 1932. Babcock was the father of the income approach as we know it. At the time a multiplicity of "values" were being used by writers. Babcock proposed a "warranted" or "justified" market value. He tried to distinguish between market price and market value. He concluded that the method of a valuation assignment must vary with the purpose of the appraisal. Babcock's book is full of examples of valuations using the residual approaches as we know them today. He proposed the use of annuity capitalization in the same fashion as we use it today.

Babcock, in 1932, was referring to the use of "probability theory" in the estimation of income streams. This particular has not received much attention to date. However, the present author utilized a simplified form of probability analysis in the analysis of apartment-to-condominium conversions in 1972 ("The Conversion of Apartments to Condominiums: An Application of Cash Flow Decision Models" [master's thesis]). Babcock made several statements that have withstood the test of time. One pertinent to the existence of the income approach is as follows:

There is but one theoretically correct method of valuation. . . . The theoretical method of valuation commences by studying the future utility of the property, that is, by forecasting the returns to be expected from the entire productive unit, the returns to land being residual under the highest and best use, and the building returns, if the building is not the highest and best use, being made residual after the land returns. The method proceeds, by discounting, to a calculation of the present value of the net return, the building return being for finite building lives, and the land return being extended to perpetuity. In the method, the building value is so determined that the predicted building returns provide both interest and a return of the capital value over the building life. Rates are determined in the market.⁸

Several things may be seen at this point. Babcock referred to forecasting returns from the "entire productive unit" and then viewing the residual returns to land and building. He referred to "discounting" the net return to a present value. His application of the residual approaches is precisely that utilized today in the traditional applications.

Babcock wrote, also quite relevantly, of the valuation of partial interests:

The value of a leased fee consists of two parts, the value of the rents from the present time to the date of lease expiration, and the value of the reversion. Inasmuch as the rents are usually definitely stated in the lease, this class of

⁸ Frederick M. Babcock, *The Valuation of Real Estate* (New York: McGraw-Hill, 1932), p. 165.

valuation is the most accurate of all the various classes of real estate valuation. The longer the term of the lease, the more accurate the resulting valuation will be.⁹

In Babcock's emphasis on the use of market rates, he established rate charts for different valuation situations. While rate charts are perhaps not in much use today, the idea of maintaining them for reference purposes is attractive. Babcock proposed the following rate charts:¹⁰

1. Land rate chart
2. Building rate chart
3. Leased-fee rate chart
4. Leasehold interest in land rate chart
5. Mortgage debt service rate chart

The writings of Babcock were probably the most monumental contribution by any one person in all of appraisal history in terms of their effect on practice. His works were not even faintly rivaled (with the exception of Bonbright) until the 1950s.

The next spurt of innovation or creative writing in the appraisal field came in the early 1950s with the writings of Arthur A. May (*The Valuation of Residential Real Estate*, 1953), George L. Schmutz (*The Appraisal Process*, 1951), and Paul F. Wendt (*Real Estate Appraisal*, 1956). Of course, perhaps the largest bombshell in recent history was dropped in 1958 with the publication of the *Ellwood Tables for Real Estate Appraising and Financing*. Suffice it to say that the Ellwood method of mortgage-equity analysis is one of the topics at the present seminar on "advanced" techniques in the appraisal of income properties. Richard U. Ratcliff (*Modern Real Estate Valuation, Theory and Application*, 1965) proposed the use of the term *most probable selling price* in lieu of *market value*. Ratcliff and Wendt were forerunners in the development of advanced cash-flow techniques. Wendt's article in the *Appraisal Journal* (October 1967, pp. 561-74) entitled "Ellwood, Inwood, and the Internal Rate of Return" presented the most up-to-date analysis of discounted cash-flow analysis of the time as well as setting forth formulas for its derivation.¹¹ The theory and methods presented by Wendt eleven years ago are still valid today.

Contributions within the last ten years have been numerous. The groundwork has been laid, the profession is on its feet, and new theorists are emerging. This simply means that our profession is healthy and assured of remaining that way as long as the current rate of innovation persists. Alfred Ring, in *The Valuation of Real Estate*, made the following

⁹ Ibid., p. 347.

¹⁰ Ibid., pp. 445-47.

¹¹ Several of the reference books cited in this paragraph were cited in chap. 2 of Wendt, *Real Estate Appraisal: Review and Outlook*.

statement concerning why it is important that we always know something about appraisal history:

Development and progress in any art or science depend heavily on the knowledge which accumulates throughout history. In a way, we must stand on the shoulders of those leaders in a given field who have gone before us in order that we may raise our sights beyond the horizon of present-day knowledge.¹²

Relevance of the Residual Techniques

The residual approaches (land and building residual) exist around the theory that returns to the property are divisible into land and building components. The "split-rate" theory has had its share of controversy over time. Wendt tells us that "Hoskold first advocated the use of two rates . . . for valuing speculative income in 1877."¹³ Babcock was an advocate of split rates. There are, however, good arguments in support of the contention that the use of so-called split rates is contrary to market evidence—that investors do not anticipate separate returns, nor do properties actually produce separate returns.

The basic assumption is that the total return to a property may be separated into land and building components. This is accomplished by assuming separate capitalization rates for the land and building. The idea is that the building is a wasting asset and should be the only portion of the property on which depreciation or recapture is allowed. It is also assumed that the income to the building will decline and terminate at the end of a projection period. The income to the land is assumed to be level to perpetuity (forever is a long time).

The rate structure is such that the *land rate* (rate attributable to returns to the land) consists of a discount rate. The *building rate* (rate attributable to returns to the improvements) is made up of a discount rate and a recapture rate that allows for depreciation of this wasting asset over time. It should be noted that in the property tax field an *effective tax rate* may be added to both land and building rates to allow for payment of property taxes. In this instance, property taxes are not considered an allowable expense item in the analysis of expenses.

It should be noted further that these residual techniques are an indirect method of capitalization. They are supposed to be used when one has insufficient sales data to justify direct capitalization.

The process of arriving at a value estimate with the residual techniques is rather systematic. First, the total returns to the property are determined. Then, depending on whether the building is new and costs are available and also depending on reliable land sales data, the appropriate

¹² Alfred A. Ring, *The Valuation of Real Estate*, 2d ed. (Englewood Cliffs, N.J.: Prentice-Hall, 1970), p. 13.

¹³ Wendt, *Real Estate Appraisal: Review and Outlook*, p. 124.

technique is chosen. Actually, if one subscribes to the application of these techniques, the technique to be used is not chosen but is dictated by available information. At any rate, once the total returns are determined, the return to the building (for example) is calculated by multiplying the already computed building rate by the cost of the building being appraised. Theoretically, the building is supposed to represent the highest and best use for the land, and current, reliable cost information must be available. One item of importance should be noted at this time. The current cost of the improvement is assumed to be equal to its market value (with all the connotations that accompany that term). Cost and value are related only by chance; cost theoretically sets the upper limit of value. It is probably a rare occurrence where actual construction costs are equal to market value. However, once the building income (the income attributable to the building) has been determined in the above fashion, it is subtracted from the total return. The residual is called the land income (the income attributable to the land). This land income is then capitalized into an estimate of value for the land. To this is added back the cost of the building to arrive at the total value estimate for the entire property.

There may be some valid points to be made in favor of using split rates and the residual techniques in terms of their representing an indirect method used in lieu of enough reliable sales data to substantiate direct capitalization. One problem with this is that the techniques assume either current land sales or current cost data that are sufficient to be considered as the market value of a building.

Another criticism of the residual approaches involves the use of *recapture*. It may be argued that there is no such thing as recapture. The term was derived from the accounting world, where its connotations spell tax relief. A more proper and descriptive term might be *capital recovery* (admittedly borrowed from the financial world), which implies a recovery of the investment over some specified period of time. The income approach exists solely to simulate sellers and purchasers in the real estate market. The methods and techniques that will then best reflect the actions of buyers and sellers will be the ones that are the most accurate (using the selling price as evidence of value when the sale has been verified). Purchasers of investment real estate are placing their funds there solely because they feel that a higher return will be paid than would have been paid in some other competitive area (the stock market, for example). They are interested in two things: a return *on* their equity investment and the eventual return *of* that equity investment, together with any values that may have accrued along the way and also with some capital appreciation in the total value of the property. To argue that they are interested in how much of the total return may be attributable to the land or building somewhat stretches the imagination. The only recapture the investor is interested in is in the form of total

and complete capital recovery plus capital gains. For this reason, perhaps the most market-oriented and realistic appraisal technique available is the process of discounting after-tax cash flows, with an allowance for capital gain, or a "property residual" that reflects a figure net of any claims to the property (such as taxes and unpaid mortgages).

There may still be circumstances in which use of the residual approaches in the traditional manner might be appropriate. If so, the choice should be made with care and deliberation, not as an automatic reaction to an income property situation.

Methods of Capitalization

Only five separate methods of capitalization come to mind at the present time. One of these has four separate submethods for application. These are listed below, followed by brief comments on each.

1. Traditional straight-line capitalization method
2. Expanded straight-line concept
3. Sinking-fund method
4. Annuity method
5. Mortgage-equity analysis
 - a) Ellwood method
 - b) Band-of-investments method
 - c) "Instant" method
 - d) After-tax cash-flow analysis

It seems that the traditional straight-line method of capitalization has been around forever and will never go away. This is appropriate in that there are instances when this method of capitalization is the proper one to employ. Basically, the straight-line method assumes a declining income stream. This is theoretically because of the decline in the building value due to the recapture on the building every year. As implied, this line of reasoning is inconsistent with the actions of the very investors we are attempting to simulate with our valuation methods. It is entirely possible to have an income-producing or investment property where the income stream is projected to decline over time. If this should be the case, the projected decline in income (which may be accompanied by a decline in value) is a result of economic situations surrounding the property, not because the building is getting older. The emphasis should be on the projection of the income stream, not on how the building value will be recaptured. The income stream to the entire property (not separated into components), once determined to be one that will tend to decline over time, will have only one present value, given a proper discount rate. This may be illustrated by valuing the same income stream by both straight-line and annuity methods. The answers will come out exactly the same.

The expanded straight-line method is only "straight-line" in that it assumes equal increments (up or down) in the income stream each year. With this method, the basic rate is "loaded" or "unloaded" to allow for an income stream that increases or decreases arithmetically (by equal percentages each year). The method was devised by James J. Mason of Los Angeles and has been incorporated into the Study Guide for Course 1-B of the American Institute of Real Estate Appraisers.

The sinking-fund method of capitalization fell from prominence many years ago but is predicted to be making a comeback. The reason is that many mineral companies have found that the sinking-fund method of recovery very closely approximates the depletion rate found in mining operations. The application of the method is basically the same as that of the traditional method, except that the rates are more representative of current yields.

Annuity capitalization will always be relevant because it builds into the value estimate the "time value of money," which is a prime consideration of all income property investors. Annuity capitalization assumes a level stream of income to the property throughout the projected income-producing years. Annuity capitalization uses the land and building residual techniques. However, it is through the property residual technique that the method maintains its most relevant valuations in terms of "investor simulation." Recovery of capital with the annuity method is accomplished by the setting up of a sinking fund where capital accrues until recovery is complete. The same criticisms of the land and building techniques mentioned earlier apply to the annuity method. Annuity capitalization is, for most properties, more applicable than the straight-line method. This must be determined, however, by analysis of the prospective income streams. As pointed out, the same value will be found using the annuity method with the compound interest tables on a declining income stream as would be achieved through dividing by a straight-line rate. This would seem to negate any arguments that the difference between the two methods lies in the method of capital recovery. It is true that capital is recovered faster with the straight-line method, but the real reason for the value differences resulting from the application of the two methods on the same first year's income stream is what happens to that income in subsequent years. With the straight-line method, the income declines, therefore there is less total income to be capitalized than with the annuity method, where the income remains level throughout the projection period. More income will certainly create higher values, given that the income is spread evenly over time.

One of the reasons for the popularity of the annuity method is that it utilizes the compound interest tables, thereby providing the appraiser with the same tools for discounting future returns that the purchaser or seller has in terms of financing. There is also a degree of flexibility

accorded with the use of the tables, so that virtually any type or shape of income may be discounted into an estimate of present worth. One can have level, increasing, decreasing, variable, level with balloon payments, deferred payments, or any other type of income stream which might be imagined.

Those types of income streams that are not level in nature do not fall under the auspices of the traditional concept of annuity capitalization. There is, however, no other manner of valuing these many and varied income streams than annuity capitalization. One might propose that all other methods be considered obsolete, since any income stream may be valued as a series of one-year annuities by using column 4 (present worth of 1) of the compound interest tables. Even an income stream that allows for equity buildup and capital appreciation may be valued using the present worth of 1. The argument for combining the other methods into one does have merit. The crucial portion of all valuation problems would then be what it always has been (though perhaps not recognized as such), the identification and quantification of the income stream. Once the income stream has been projected, obtaining the present value presents no problem, given the appropriate yields to the mortgage and equity positions. Given entrée with the magic words “mortgage and equity,” one can also say that mortgage-equity valuation is a form of annuity capitalization, but annuity capitalization is not always mortgage equity.

Mortgage-equity valuation is predicated on the assumption that there are specific and identifiable returns to the mortgage position and to the equity position in any valuation problem and that there are specific rates that apply to each of these. Mortgage-equity analysis specifically separates the returns into mortgage and equity components and discounts at the mortgage interest rate and equity yield rate, respectively. Annuity capitalization assumes discounting of all returns at the discount rate. Certain assumptions must be made in order to apply mortgage-equity analysis. First, the income stream is assumed to remain level over the holding period. The holding period may be any length of time, usually from seven to twelve years. Mortgage-equity analysis simulates the actions of investors in many ways—the holding period is only one. The returns to the mortgage include the payment of mortgage interest and recovery of the principal balance. The returns to the equity are discounted at the equity yield rate, a rate that equates the original equity investment with all returns to it. Mortgage-equity analysis allows for return of the original equity, capital gains over the holding period, return of the amount of the mortgage paid off accumulated in a sinking fund at the equity yield rate (called “equity buildup”), and return on the mortgaged portion. All returns relating to the mortgage are discounted at the mortgage interest rate, compounded monthly.

Examples would be the annual mortgage constant and the portion paid off. All returns that will accrue to the investor are discounted at the equity yield rate, compounded annually. Examples would be the equity income; the amount of equity buildup, once it is calculated; and any projected capital gains.

Mortgage-equity analysis has been criticized because of the limitations imposed by requiring a level income stream. As will be illustrated with the use of a "stabilized net income," this particular obstacle may be overcome. The complexity of the Ellwood formula has drawn some criticisms over the years. The formula is quite flexible when it is learned and understood. However, there are several alternatives to using this formula. They all will provide exactly the same answer, given the same assumptions.

The Ellwood formulation is presented below. It will not be explained in detail at this point because that is not the purpose of this paper. The basic formula may be written as follows:

$$R = Y - M \left[Y + P \left(\frac{1}{S_n} \right) - f \right] + \text{dep} \left(\frac{1}{S_n} \right) - \text{app} \left(\frac{1}{S_n} \right),^{14}$$

where

Y = Equity yield rate;

R = Overall rate;

M = Mortgage loan-to-value ratio;

P = Portion of mortgage paid off (calculated with sinking-fund factor (SFF) for term divided by SFF for holding period at mortgage interest rate, compounded monthly);

$1/S_n$ = SFF at equity yield rate;

f = Annual mortgage constant based on monthly compounding;

$P(1/S_n)$ = Equity buildup;

$+\text{dep}$ = Percentage change in total value over holding period.

$-\text{app}$

An alternative to the formula method is the "Ellwood without algebra" band-of-investments method of arriving at precisely the same rate under the same assumptions.¹⁵ The methodology for arriving at the capitalization rate with this method is as follows:¹⁶

$$\text{Loan ratio} \times \text{annual constant} = \text{Weighted rate};$$

¹⁴ Leon W. Ellwood, *Ellwood Tables for Real Estate Appraising and Financing* (Chicago: American Institute of Real Estate Appraisers, 1970), pp. 11-15.

¹⁵ Charles B. Akerson, "Ellwood without Algebra," *Appraisal Journal* 38 (July 1970): 325-35.

¹⁶ Charles B. Akerson, *Capitalization Theory and Techniques* (Chicago: American Institute of Real Estate Appraisers, 1977), p. 87.

$$\text{Equity ratio} \times \text{equity yield rate} = \frac{\text{Weighted rate}}{\text{Weighted average}}$$

Less credit for equity buildup:

$$\text{Loan ratio} \times \text{portion paid off} \times \text{SFF} = \frac{(\text{Credit})}{\text{Basic rate } (r)}$$

Adjustment for capital gain or loss (appreciation or depreciation):

$$\text{Plus depreciation (or minus appreciation)} \times \text{SFF} = \frac{\text{Adjustment}}{\text{Overall rate } R}$$

There are even easier ways to obtain mortgage-equity rates. One may wish to utilize the "instant" mortgage-equity method. With this, all one needs to know is how to look up the assumptions and locate the rate in the tables. The author would caution anyone against using the instant method as anything other than a tool, and then one to be used only when proficiency has been developed in building rates "from scratch." Use of these tables might be analogous to handing someone a loaded 357 Magnum pistol and instructing him to pull the trigger. Unless careful training in safety and handling is provided, a dangerous situation has developed. Sometimes too little knowledge can be dangerous also. The instant mortgage-equity techniques have provided a significant contribution in the field, but, as with all tools, they must be used properly in order to maximize their potential efficiency.

The last method of analyzing the mortgage and equity positions is somewhat different from the prior three. After-tax cash-flow analysis does, in fact, value the equity position of an investment but does not place the importance on the mortgage portion that the Ellwood-oriented techniques do. After-tax cash-flow analysis allows for any given holding period, any method of financing, alternative methods of depreciation, any type of income stream, and a specified or calculated equity reversion. After-tax cash flow is calculated as follows:

	Before-tax cash flow (cash throw-off)
<i>less</i>	Depreciation
<i>plus</i>	Mortgage principal
<i>equals</i>	Taxable income
<i>times</i>	Tax rate
<i>equals</i>	Amount of tax
	Net operating income
<i>less</i>	Debt service
<i>equals</i>	Before-tax cash flow (cash throw-off)
<i>less</i>	Amount of tax
<i>equals</i>	After-tax cash flow

Valuation of after-tax cash flows involves formulas also. The most complete that this author has seen was developed by Paul F. Wendt and is shown below:

$$V - D = E = \sum_{t=1}^n \left[\frac{R_t - I_t - A_t - T_t}{(1 + r)^t} \right] + \frac{P_n - GT - UM}{(1 + r)^n},^{17}$$

where

- V = Value of property;
- R_t = Annual net income in period t ;
- I_t = Interest paid on mortgage in period t ;
- A_t = Mortgage amortization in period t ;
- T_t = Income tax allowance in period t ;
- P_n = Sale price or residual in period ($t = n$);
- GT = Capital gains tax;
- UM = Unpaid mortgage;
- r = Rate of return;
- E = Equity;
- D = Mortgage debt.

One of the current developments in relation to the income approach has been the idea of "normalization" of income and expense information. This is particularly applicable in the mass appraisal of commercial properties. The basic idea is that, with proper stratification and statistical analysis, the appraiser can establish "typical" or "normal" income and expense information. The relevant terminology is presented below:

1. Potential gross rent—number of units times normal unit rent.
2. Normal gross rent—potential gross rent less vacancy and collection losses.
3. Normal gross income—the sum of normal gross rent and other income.
4. Normalized expenses—expenses after analysis, statistically, of normal expense ratios.
5. Normal net income—normal gross income less normal expenses.

Since real estate markets, investors, and mortgage lenders most often do not seem to act "rationally," the choice of the term *normal* may prove to be quite ironic. Some of these imperfections may be removed by the application of such techniques as multiple regression analysis in the estimation of normal expenses.

An age-old method of valuing income properties is the direct method of applying gross rent multipliers (GRMs) to the gross rents for an estimate of value. The GRM has the advantage of being gleaned directly from market information and therefore of being very accurate, given comparability and a large number of sales. The GRM also lends itself

¹⁷ Wendt, *Real Estate Appraisal: Review and Outlook*, pp. 158-59.

to multiple regression analysis in two ways. The multiplier may be analyzed by itself as a "gross" number, or the gross capitalization rate may be abstracted (its reciprocal) into an estimate of the market capitalization rate (with the use of reliable expense ratios).

Multiple regression analysis may then be used in determining the gross rent multipliers, in analyzing and establishing normal expense ratios, and in developing reliable market capitalization rates. As in any application of MRA, there must be an adequate number of sales on which to base a reliable regression equation. Homogeneity of properties is another ingredient that has proved to be the nemesis of many a systems analyst who had good programs and could not understand why the valuation yielded so much variation.

The bottom line in any appraisal is the value estimate. In the property tax area, we are most likely to be seeking market value. However, with the variety of forms of tax relief through land-use legislation, this may change to other concepts. The two primary types of value are *value in use* and *value in exchange*. Value in exchange is generally considered to include market value. Value in use refers to the value of a particular parcel of real estate to a particular investor, often for a particular purpose. Of the many methods and techniques for valuing property, some tend to provide certain types of value. For example, straight-line and annuity methods will virtually always be used for market-value appraisals. Immediately the use of annuity capitalization for valuing leases and other variable income streams challenges this assertion. Mortgage-equity analysis lends itself to both market-value appraisals and "investment value" appraisals (usually for a particular investor). The assumptions involved may be those of one investor, or they may be stratified so that assumptions reflect those typical of an investor for a certain property type. There may be some applications for regression analysis in the determination of these "typical" assumptions.

There are many types of values that the appraiser may be seeking: market value, investment value, insurable value, loanable value, and others. He should remember, for example, that a property may have considerable investment value but very little market value. Examples of this are found in the valuation of partial interests. When the rights conveyed constitute a usufruct—only the right to use and possession—the remaining rights to the owner may be affected. The general rule is that a leased fee always has market value; the leasehold interest may have investment value or market value, depending on the marketability of the rights transferred. All lease documents should be carefully examined to determine this question of marketability. Many properties would be worth more to a particular investor than to another. The reason may have to do with his income tax situation or his ability to merge the property use with other properties held by him. When using after-tax cash-flow analysis, the appraiser/analyst will virtually always be seeking

investment value to a particular individual, perhaps for a specific purpose which may or may not have anything to do with the highest and best use of the property. Perhaps "normal" is not such a bad word choice after all.

Today's property tax assessor is the most progressive appraiser in the world. He has the most data for analysis; he has the best opportunity for computerization because of the mass of work generated by the job; and he has consistently proved more than up to the task. The only "real world" multiple regression models that have been constantly providing realistic valuations were conceived in and operated from assessors' offices. The application of market-cost-oriented "point" systems in those areas too small for multiple regression analysis (MRA) proves accurate enough to be termed a close second to MRA values in areas where systems are well established. MRA is not the ultimate appraisal tool. It, like instant mortgage-equity analysis, is simply a tool to be used as assistance.

The modern assessor is operating in a world in which citizens are demanding property tax relief. He is not in a position to grant tax relief. However, his charge is to grant property tax equity among the property owners within his jurisdiction. The use of current, often sophisticated, often computerized, always "scrutinized" methods of valuation will enable today's assessor to fulfill his responsibility to his taxpaying public.

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