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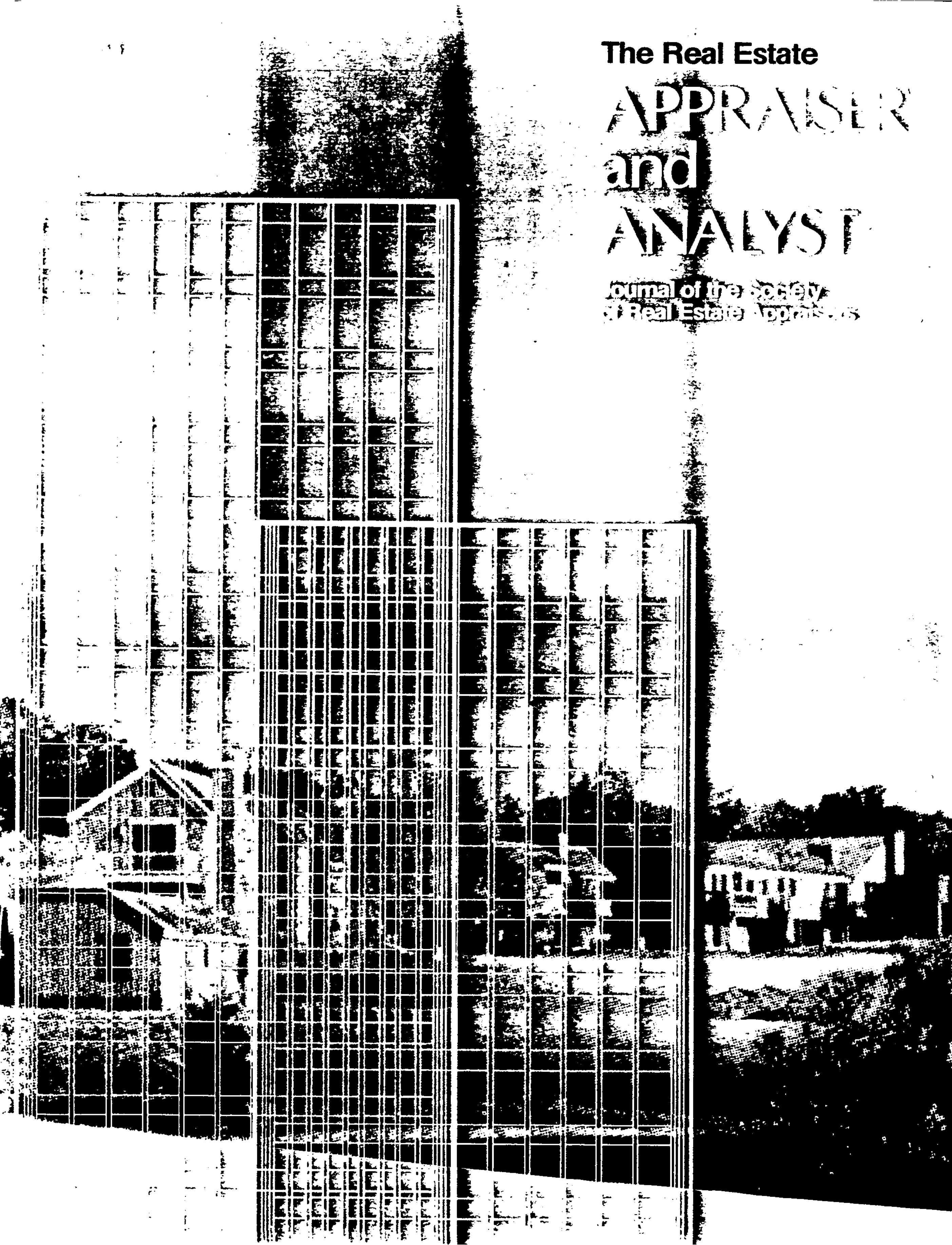

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Cash Equivalent Value of Real Property

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The increase use of seller financing of property sales during the past decade has caused an increased awareness of the need for adjusting property sales prices to a bench mark for comparability. The typical sale involves the sale of real property and favorable (i.e., below market level) terms simultaneously such that it is not readily apparent what part of the price is attributable to the real property and what part is attributable to favorable terms.

It is necessary to distinguish between these parts in order to provide comparables for appraisers to value other property with different terms and to assess the real property for the real estate tax. Failing to distinguish between the parts will result in erroneous investment decisions and inequitable tax burdens.

Sales prices of real property are readily available because most states tax the transfer of real property and require an affidavit for the price paid. However, these sales prices cannot always be relied upon as a basis for valuation because the unadjusted prices may not be the result of free market transfers. The sale may be from parents to children, from wife to husband, a hasty sale to prevent foreclosure, a sale between partners to establish high value for this or other property, or numerous other circumstances where considerations besides property and money are involved.

Each sale used to establish market prices must be confirmed in terms of reasonableness and other considerations by questioning the participants and considering the economic circumstances surrounding the sale.

The sales price must conform to a carefully defined statement of market value before it can be used as part of the basic index for valuation. The definition of market price used by appraisers and assessors is:

> "Market Value—The most probable price in terms of money which a property will bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller, each acting prudently, knowledgeably and assuming the price is not affected by undue stimulus.
>
> "Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:
>
> 1. buyer and seller are typically motivated.
> 2. both parties are well informed or well advised, and each acting in what he considers his own best interest.
> 3. a reasonable time is allowed for exposure in the open market.
> 4. payment is made in cash or its equivalent.
> 5. financing, if any, is on terms generally available in the community at the specified date and typical for the property type in its locale.
> 6. the price represents a normal consideration for the property sold unaffected by special financing amounts and/or terms, services, fees, costs, or credits incurred in the transaction."[1]

Most real property sales today to not conform to this elaborate definition. Both commercial income producing

1. Byrl N. Boyce, *Real Estate Appraisal Terminology, Revised Edition*, (Chicago, Illinois: American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers, 1981), p. 137.

property and residential property often have seller financing at interest rates or terms not available from a third party so that conditions 4, 5, and 6 in the above definition are not met. The increase in interest rates over the past decade has greatly increased this definitional problem as both Albritton[2] and Entreken[3] have recently noted.

Reported sales prices must be adjusted to a cash equivalent value that conforms to conditions 4, 5, and 6 before these prices can be used in a valuation index. The method of adjusting sales prices for financial terms to a cash equivalent bench mark is not settled. The methodology employed by previous authors is normative, differs, and no explanation has been offered for the different approaches.

This paper is an effort to explicate the issues and provide market evidence for the adjustments needed to make sales prices comparable. The first section is a survey of recent articles which set forth different approaches to adjusting to cash equivalent value. The second section offers a theoretical explanation for the value of financial terms, the third section provides empirical evidence for the value of terms, and the fourth section provides a methodology for cash equivalent adjustments.

Methods of Estimating Cash Equivalent Value

In a survey of recent articles on the cash equivalent value of property sales, there were essentially three different methods advanced for determining cash equivalent value. These methods were:

1. the seller's valuation of the terms,
2. the buyer's valuation of the terms, and
3. the market valuation of terms.

All of the methods deduct the value of the terms of sale from the nominal sales price to determine the cash equivalent price.

The seller's value of terms was the approach used by Garcia in 1972.[4] He stated that the seller's value of the debt instrument was to be subtracted from the face value of the mortgage to determine the value of the terms. The difference between these values was then subtracted from the nominal sales price to obtain the cash equivalent price.

The value of the debt instrument (purchase money mortgage or assumed mortgage) was the price it could be sold for in the market. In the absence of a market, the value could be imputed by discounting the debt instrument by a built-up discount rate. The built-up rate took into account the relative risk of the loan and alternative investment opportunities for the seller.

The buyer's value of terms approach was recently advocated by Lipscomb.[5] In this approach, the value of the terms is based on alternative financing available to the buyer of the property. The buyer discounts the difference between the payments he would otherwise make to a third party and the payments he would make to the seller by the market rate of interest to determine the value of the terms. A similar approach was followed by Gullickson and Hewitt[6] and the International Association of Assessing Officers.[7]

Friedman and Lindeman[8] generally followed Garcia in their analysis. They suggested that the terms of sale could be determined by a sale of the debt instrument or by using a built-up discount rate to determine the value of the note to the seller.

However, Friedman and Lindeman also suggested that the value of the terms of trade could be inferred by discounting purchase money mortgages at various yield rates until the discounted value of the mortgage plus the cash down payment were equal to the all-cash sales prices of comparable properties. This method is a market approach to valuing the terms of trade. Here, the value is not inferred from the buyer's side or the seller's side but instead is determined from market sales. In actuality, the existence of all cash sales in many local markets is rare so that this method, without modification, cannot be implemented.

Theoretical Explanation of the Value of Terms

Ratcliff[9] has noted that the investment value of a property is not synonymous with market value. He stated,[10] "The upper limit of the investor's bid for a property is termed the 'investment value'." This value reflects his judgment of the riskiness of the investment, his individual taste, financial situation, and tax position.

There are two investors involved in a sale of property, the buyer and the seller. Each has his own 'investment value'. When the buyer's investment value of the property exceeds the seller's investment value, there is an opportunity for mutual profit by an exchange. Bargaining power or prowess determines how the profit is shared between the two as they maneuver through offer and bid prices to achieve a sales price somewhere between the buyer's investment value as an upper limit and the seller's investment value as a lower limit.[11]

A similar situation prevails in a two party exchange of terms. In the most common case, the seller is providing or selling terms to a buyer that are superior to terms generally available from third party lenders or the seller may make a payment to a third party lender to provide superior terms to the buyer. An opportunity for mutual profit exists when the seller's cost of providing superior terms is less than the buyer's benefit from this improvement in terms.

The mutual profit from providing terms may be added to the mutual profit from the property exchange, creating a greater surplus than would exist in the absence of seller in-

2. Harold D. Albritton, "A Critique of the Prevailing Definition of Market Value," *The Appraisal Journal*, April 1980, pp. 199-205.
3. Henry C. Entreken, "Are We Really Seeking Market Value?," *The Appraisal Journal*, July 1980, pp. 428-431.
4. Ken Garcia, "Sales Prices and Cash Equivalents," *The Appraisal Journal*, January 1972, pp. 1-10.
5. Joseph B. Lipscomb, "Discount Rates for Cash Equivalent Analysis," *The Appraisal Journal*, January 1981, pp. 23-33.
6. Alden E. Gullickson and Richard Hewitt, III, "Adjusting to Reality," *The Real Estate Appraiser and Analyst*, Summer 1981, pp. 22-27.
7. *Improving Real Property Assessment* (International Association of Assessing Officers).
8. Jack P. Friedman and J. Bruce Lindeman, "Seller Financing and Cash Equivalence," *The Real Estate Appraiser and Analyst*, May-June 1979, pp. 46-50.
9. Richard U. Ratcliff, "Capitalized Income is not Market Value," *The Appraisal Journal*, January 1968, pp. 22-30.
10. Richard U. Ratcliff, *Real Estate Analysis* (New York, New York: McGraw-Hill, 1961), p. 118.
11. These concepts have been covered in two works by Ratcliff. Richard U. Ratcliff, *Valuation for Real Estate Decisions* (Santa Cruz, California: Democrat Press, 1972) and Richard U. Ratcliff, *Real Estate Analysis* (New York, New York: McGraw-Hill, 1961).

volvement in financing. Mutual bargaining should establish a sales price between the seller's investment value of the property plus the cost of providing terms as a lower limit and the buyer's investment value of the property plus the buyer's value of the favorable terms as an upper limit.

The resulting sales price may exceed the sales price that would have prevailed without terms but this result is not certain. The buyer may be able to bargain for the same price and pay nothing for the favorable terms or he may be induced to pay a higher price for the added value. Indeed, it is possible that the resulting sales price will exceed the sales price without terms by more than the value of the terms to the buyer.

It is possible that the cost of providing terms will exceed the benefit to the buyer. In this case, it would be better to arrange for third party financing but the seller may still provide financing. This can happen when the surplus value derived from the property sale exceeds the negative value created by the seller provided terms. Both parties may still profit from the transaction but the total benefit is less than it would be with third party financing.

When the value of terms to the buyer is negative as it would be when the buyer is required to accept terms more onerous than those available from a third party, the maximum price the buyer is willing to pay is reduced by the cost of accepting the terms. Similarly, the seller may sometimes benefit from providing terms and this benefit would reduce the minimum price demanded.

Thus, no conclusion can be reached about the selling price of property with terms versus the same property without terms except that the buyer's maximum price will be increased by the value of the terms to the buyer and that the seller's minimum price will be increased by the cost of the terms to the seller. If the terms are onerous to the buyer and advantageous to the seller, the maximum price and the minimum price will be reduced by the corresponding value of the terms to the buyer and the seller.

From a theoretical point of view, it would be incorrect to adjust the actual sales price by the value of the terms to the buyer as suggested by Lipscomb, Gullickson, Hewitt, and the IAAO, or by the cost of the terms to the seller as suggested by Garcia, Friedman, and Lindeman because market value results from the interaction of both supply and demand forces. Instead, the procedure suggested by Friedman and Lindeman of discounting purchase money mortgages at various yield rates until the discounted value of the mortgage plus the cash down payment equals the all-cash sales price of comparable properties will yield an approximate market value of the terms. The market value of the terms would be inferred to be the difference between the discounted value of the purchase money mortgage and the nominal value of the purchase money mortgage.

As observed above, the Friedman and Lindeman method is often inapplicable due to the lack of all cash sales. Consequently, a statistical analysis of sales with varying terms of sale is required to empirically estimate the value that the market ascribes to favorable terms.

Previous Empirical Analysis of the Value of Terms

Houses financed with FHA and VA loans normally require sellers to pay points so that buyers will receive loans at rates below conventional mortgage rates. Based on our analysis, we would expect the sales price to be increased above the price that would have been paid with a conventional mortgage but not necessarily by the full amount of the points paid.[12]

In a previous empirical analysis, Zerbst and Brueggeman[13] estimated that the sales price of residences financed by FHA loans was increased by 39 percent of the discount points and VA buyers paid prices increased by 53 percent of the discount points. These authors suggested that a partial explanation for the sales prices not increasing by the full amount of the points might be the inability of sellers to correctly anticipate the points they would be required to pay.

However, if they are correct, this would explain only a small part of the discrepancy. In some cases, the points paid would have been less than expected and, in other cases, the points paid would have been higher than expected. It is difficult to see that there would have been a consistent bias. Furthermore, the range in points paid during the period was only from 5.5 to 7.0.

The theoretical analysis above affords an alternative explanation. We would not have expected sellers of houses financed by FHA and VA loans to completely recoup the cost of points. Instead, we would have expected the price paid to increase by no more than the cost of the points. An empirical analysis, such as that accomplished by Zerbst and Brueggman would be required to determine the portion of the cost absorbed by sellers.

Empirical Analysis of the Value of Terms

For this analysis, fourteen multi-family residential property sales in the Madison, Wisconsin, metropolitan area were used. These sales resulted in a transfer of 1405 apartment units with a total unadjusted or nominal sales price of $31,215,621. The size of the apartment complexes varied from 14 units to 288 units with a range of nominal sales prices from $345,000 to $5,583,621 while the unit price of the apartments ranged from $16,756.76 to $35,083.33.

The terms of sale varied greatly from sale to sale. None of the properties was sold without the seller providing some financial assistance. The average down payment was 16.2 percent with a range from 7.2 percent to 28.7 percent.

All of the sales were confirmed as free market transfers where the only considerations involved were the real property, money, and financial terms. All sales of less than $300,000 were rejected in order to confine the analysis to properties that could command a national market by attracting buyers from outside the metropolitan area. The earliest date of sale was October 27, 1977, and the latest sale occurred on March 31, 1981. During this thirty month period, the market rate for first mortgages on commercial property

12. Lipscomb stated that the cash equivalent price of houses financed by FHA and VA loans would equal the sales price minus the points paid by the seller. Gullickson and Hewitt made a similar statement but Garcia pointed out that the developer might demand the same price for houses financed by conventional loans as for those financed by FHA and VA loans because the government appraisers might reduce the appraised value of all of the houses if discounts were allowed on conventionally financed houses.

13. Robert H. Zerbst and William B. Brueggeman, "Adjusting Comparable Sales for FHA and VA Financing," *The Appraisal Journal*, July 1979, pp. 374-380, and "FHA and VA Mortgage Discount Points and Housing Prices," *The Journal of Finance*, December 1977, pp. 1766-1773.

ranged from 9 to 15.5 percent, representing a 72 percent increase in the before tax cost of funds.

The cash equivalent adjustment was computed by calculating the present value of the mortgages discounted at the existing mortgage rate reported in the *Citicorp Benchmark Report* for the date of closing. The present value of the mortgage instrument was then subtracted from the face value of the mortgage to determine the cash equivalent adjustment for empirical analysis.

Property sales were analyzed on a per unit and a per dollar basis following standard appraisal practice. Appraisers, following their concept of the market process, usually estimate value on the basis of the price per apartment unit and on the basis of dollars of income generated by the total property. The two value estimates are then reconciled to arrive at a final price estimate for the property. The final value estimate is normally a weighted average of the two approaches where the weights are assigned on the basis of the appraiser's judgment of the appropriateness of the two methods for the property to be valued.

Both log and linear equation forms were utilized to discover the best fitting equation. No *a priori* data existed to indicate that the total price of properties or the price per apartment unit was constantly related to income or the other independent variables. On the contrary, there was an expectation that there would be volume discounts due to the greater scarcity and sophistication of buyers of the larger complexes.

Price per unit and total price paid were regressed on the cash equivalent adjustment, projected net income, projected gross income, actual gross income, actual net income, the loan-to-value ratio, the number of units in the complex, net leasable area, condominum potential, and the market rate of interest at the time of sale. Where appropriate, these values were divided by the number of units in the complex to obtain a per unit value for the regressions on price per unit.

Projected potential gross income and potential net income were estimated for the year following the property sale by analyzing market rents and expenses for similar units in the area and assuming an inflation rate equal to the current rate of increase at the time of sale. Actual gross income and actual net income were the actual rental income and expenses experienced at the time of purchase.

There is a question whether buyers adjust their value estimates for managerial effects. If potential gross income or potential net income variables are better predictors of the purchase price than actual values, one could assume that buyers adjust for managerial effects. If not, superior management in maximizing rents and minimizing expenses could produce premium prices while poor management would result in lower sales prices.

Condominium potential was determined by an on site inspection of the apartment complexes and by questioning the purchasers of the property. When a condominium conversion was planned or when the property was judged to be suitable for immediate conversion, a dummy variable of one was entered to indicate condominium potential. The potential for condominium conversion was expected to produce a premium price for the property.

The market rate of interest at the time of sale was used as an independent variable to test whether buyer interest in favorable terms was influenced by the absolute level of interest rates. This rate of interest is already included as a factor in the cash equivalent adjustment but there is a possibility that buyers become increasingly concerned with the rate of interest and thus with favorable terms as interest rates increase. A significant effect from this variable would indicate a concern with the level of rates independent of the value of the cash equivalent adjustment.

Net leasable area was included as a variable for similar reasons to those that dictated the inclusion of potential income estimates. Including net leasable area tends to correct for circumstances where the property is rented for below market rates or where costs are not being carefully controlled. It is also possible that buyers prefer larger apartments either because there is a better potential for conversion or because these apartments are more in demand at a given rent level.

The loan-to-value ratio was included to test the value of leverage to the investor. One would normally expect that buyers would pay and sellers would demand higher prices with smaller down payments on property. The buyers gain the benefit of higher leverage and the sellers assume a higher risk of non-payment (when owner financing is involved) as the down payment is reduced.

Equations 1 and 2 provide the best fitting equations derived from a step-wise regression procedure:

$$\ln \frac{NSP}{unit} = 3.4320 + \underset{(.1139)}{0.8502} \ln \frac{ANI}{unit} + \underset{(.02281)}{0.10268} \ln \frac{CEA}{unit} - \underset{(.03682)}{0.10141} \ln units \qquad (1)$$

R^2 = 84.6, adjusted for degrees of freedom.
S. E. = 0.08564.

where $\frac{NSP}{unit}$ is nominal sale price per unit.

$\frac{ANI}{unit}$ is actual net income per unit.

$\frac{CEA}{unit}$ is the cash equivalent adjustment per unit.

units is the number of units in the complex.

The standard errors for the coefficients are in parentheses.

$$NSP = 224{,}696 + \underset{(.3313)}{2.011} \, CEA + \underset{(.5357)}{9.5389} \, ANI \qquad (2)$$

R^2 = 98.8, adjusted for degrees of freedom.
S. E. = 170,606.

where NSP is nominal sales price.

ANI is actual net income.

CEA is the cash equivalent adjustment for the financial terms.

The standard errors for the coefficients are in parentheses.

Potential gross income and potential net income are not included in the best fitting equations. These variables are highly correlated with actual gross and actual net income and they do not add to the explanatory power of the equations when the actual data are included. This indicates that buyers place more emphasis on the actual current earnings of property than they place on the earnings of similar properties in the same area. This result may be due to ignorance of market rents and typical expenses or the investigators may not have correctly modeled buyer behavior in estimating the income potential.

Actual gross income does not improve the explanatory power of the equation. Since this variable is highly correlated with actual net income, it can be used separately to estimate price but it is inferior to actual net income in predicting the sales price.

Condominium potential and net leaseable area failed to improve the predictive power of the equations. These factors are implicitly included in the actual net income per unit and total actual net income data because larger units and units with potential for conversion should command higher rents. Evidently, no additional premium is warranted for these factors.

The loan-to-value ratio also failed to enter as a statistically significant factor in influencing market price. This variable is a factor in the cash equivalent adjustment because more highly leveraged properties usually require more owner financing so that the leverage effects influence the coefficient for cash equivalent adjustment.

The market rate of interest at the time of sale apparently has no influence on market price other than that included in the cash equivalent adjustment. This variable proved to be an insignificant predictor of market value indicating that buyers do not become increasingly concerned with favorable terms as rates of interest increase.

Equations 1 and 2 provide three explanatory variables: actual net income, the cash equivalent adjustment, and the number of units in the complex. On a per unit basis, these variables explain 84.6 percent of the variation in nominal sales price per unit while two of the variables (actual net income and the cash equivalent adjustment) explain 98.8 percent of the variation in the total nominal sales price.

Equations 1 and 2 indicate that the market values the terms of trade higher than expected from our normative model. A one dollar increase in the cash equivalent adjustment per unit produces an increase in the mean value per unit of $1.46 in Equation 1, while Equation 2 indicates an increase in total property value of $2.01 for each dollar change in the cash equivalent adjustment.

The number of units in the complex indicates that there are quantity discounts but this is not of great importance in dollar terms. When evaluated at the mean, an increase of one unit reduces the price per unit by approximately 24 dollars. For a 100 unit complex, this would reduce the total price 2,400 dollars. In relative terms, a one percent increase in the units results in a one-tenth of one percent reduction in the sales price per unit. This relatively small effect probably accounts for the fact that this variable is statistically insignificant in explaining the total sales price in Equation 2.

As expected, actual net operating income is the most important predictor of the unadjusted nominal sales price. A one percent increase in actual net income per unit produces a .85 percent increase in nominal sales price per unit from Equation 1. This means that a one dollar increase in the mean actual net income per unit increases the mean unit price by $10.92.

Equation 2 indicates an increase in the total sales price of $9.54 for each dollar increase in actual net income for the complex. Superior management in reducing operating expenses and maintaining rent levels at the highest level commensurate with the vacancy rate evidently pays dividends when the property is sold.

Conclusion

Two variables, actual net income and the cash equivalent adjustment, were the primary determinants of value for this sample of apartment complexes with values in excess of $300,000. Other data such as the level of market rents for comparable properties, the market rate of interest, the loan-to-value ratio, and the potential for conversion to condominiums prove to be insignificant factors when actual net income and the cash equivalent adjustment are included.

The normative model used to determine the cash equivalent adjustment provided a strong basis for determining the correct adjustment to the nominal sales price for the value of terms. The high level of statistical significance indicates that investors either implicitly or explicitly utilize present value criteria in adjusting for favorable terms and that the normative model used here was correctly specified.

However, this study provides strong evidence that a normative model of either buyer's behavior or seller's behavior is inadequate to determine the value of terms. The statistical analysis indicated that the value of terms was 1.5 to 2 times greater than the cash equivalent adjustment that was initially proposed. Researchers could not know, *a priori*, from a normative model alone, what value to place on favorable terms.

The cash equivalent price calculated from the normative model proved to be greater than the market value of the property without terms as shown by the statistical model. Contrary to the results of Zerbst and Brueggeman for single family housing, we find that investors are willing to pay higher than expected premiums for favorable terms. This may have occurred because buyers and sellers fail to fully understand present value concepts, because of fixed acceptable minimum prices when seller financing is provided, or because of the importance of cash breakeven limits. In any case, this study provides a clear demonstration of the difference between fair market value under defined conditions as specified by a normative model and the most probable price given the demonstrated behavior of the market participants as shown by a statistical analysis.

The methodology developed here can be used to established a cash equivalent price for property to develop indices for tax assessment purposes or used to predict the nominal sales price when the terms of sale are known. The time involved in validating data and qualifiying the sample and the confidential nature of the required data make studies of this type difficult and expensive but short cut methods are unlikely to produce correct market predictions.

Bibliography

1. Albritton, Harold D. "A Critique of the Prevailing Definition of Market Value," *The Appraisal Journal*, April 1980, pp. 199-205.
2. Boyce, Byrl N. *Real Estate Appraisal Terminology* (Chicago, Illinois: American Institute of Real Estate Appraisers and the Society of Real Estate Appraisers, 1981).
3. Brueggeman, William B., and Robert H. Zerbst. "Discount Points and Housing Prices: A Reply," *The Journal of Finance*, September 1979, pp. 1055-1060.
4. Colwell, Peter F., Karl L. Guntermann, and C. F. Sirmans. "Discount Points and Housing Prices: Comment," *The Journal of Finance*, September 1979, pp. 1049-1054.
5. Entreken, Henry C. "Are We Really Seeking Market Value?," *The Appraisal Journal*, July 1980, pp. 428-431.
6. Friedman, Jack P., and J. Bruce Lindeman. "Seller Financing and Cash Equivalence," *The Real Estate Appraiser and Analyst*, May-June 1979, pp. 46-50.
7. Garcia, Ken. "Sales Prices and Cash Equivalents," *The Appraisal Journal*, January 1972, pp. 1-10.
8. Gullickson, Alden E., and Richard Hewitt, III. "Adjusting to Reality," *The Real Estate Appraiser and Analyst*, Summer 1981, pp. 22-27.
9. Lipscomb, Joseph B. "Discount Rates for Cash Equivalent Analysis," *The Appraisal Journal*, January 1981, pp. 23-33.
10. Ratcliff, Richard U. "Capitalized Income is Not Maket Value," *The Appraisal Journal*, January 1968, pp. 22-30.
11. ________. *Real Estate Analysis* (New York, New York: McGraw-Hill, 1961).
12. ________. *Valuation for Real Estate Decisions* (Santa Cruz, California: Democrate Press, 1972).
13. Zerbst, Robert H., and William B. Brueggeman. "Adjusting Comparable Sales for FHA and VA Financing," *The Appraisal Journal*, July 1979, pp. 374-380.
14. ________. "FHA and VA Mortgage Discount Points and Housing Prices," *The Journal of Finance*, December 1977, pp. 1766-1773.

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Footnotes and/or bibliography should begin with the name of the author, and should include title, publication, publisher, date of publication, volume number (if any) and pages cited.

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