

The Utilization of the Sales Comparison Approach in the Valuation of Public Utility Property

The Sales Comparison Approach is an often ignored evaluation tool in the appraisal of public utility property. Sales data is strong evidence in the valuation of public utility property, particularly for the purposes of ad valorem taxation, acquisitions, and other litigation scenarios. The inherent weaknesses of both the Cost and Income Approaches can be greatly diminished or overcome with supportive sales data in many public utility valuation problems. The estimation of accrued depreciation in the Cost Approach and the selection of appropriate rates within the Income Approach are generally highly subjective without market data. Judgmental estimates for both depreciation and the several rates utilized in valuation analysis can be bolstered with sales evidence drawn directly from the market, itself.

It is not suggested that Cost and Income valuation methodologies are inappropriate in the valuation of public utility property. However, the utilization of the Sales Comparison Approach can provide the necessary evidence to strongly support many public utility valuation problems. The advent of *deregulation* in several sectors of the public utility industry has and will continue to encourage the documentation of market value.

There appears to be a built-in bias among public utility appraisal practitioners as to the appropriateness of the Sales Comparison Approach. This is understandable in light of the historical and legal valuation process for rate-making; that is a heavy, if not exclusive, use of the Cost Approach as an indication of public utility value.

The utilization of the Cost Approach has found wide acceptance in public utility valuation. The Cost Approach has been aided in its acceptance as a valid predictor of public utility value as a result of the commonly adhered to method of rate base determination; that is "original cost", or "fair value" or in some cases "reproduction cost new". No matter which method, cost has been the underlying measurement.

In utilizing the Cost Approach in public utility valuation, there are several types of costs which are frequently identified. Among these costs is so-called book value. Book value is a cost-oriented figure. It is the capital amount shown on the books of account. Book value is usually the original cost less depreciation plus any additions to capital.

On an initial observation, it would appear that book value or original cost less depreciation would be a sound indication of market value for public utility holdings. After all, in those regulatory jurisdictions subscribing to the concept of "original cost", electric utility companies have their earnings set by a rate of return on book value. This value, however, is artificial. It does not recognize the effect of inflation (or deflation) on value. This is particularly true for public utility property subject to intense technological changes, such as found in communication utility property. In many cases, particularly for smaller utilities, some of the original costs carried on the books are actually estimates in lieu of accurate

or known costs. However, where the facilities are newer and represent current technology, original cost less depreciation figures may be a very helpful guide in predicting public utility value.

With the advent of computer-aided analysis, valuations based on sophisticated discounted cash flow (DCF) analyses have come into heavy practice. Much can be said for a discounted cash flow analysis, particularly as a planning tool. However, there are limitations on using discounted cash flow studies as predictors of value for public utility property. The estimation of the proper discount rate being the most evident weak point. A simple weighted cost of capital model for estimating a discount rate is often, unfortunately, fraught with difficulties. The most obvious is that the estimated rate frequently does not take into consideration current and future expectations of market changes which may be identified by sales data analysis.

Contrary to widely held opinion, public utility property does sell, although it is recognized that the level of activity is less than noted between the late 1950's and the mid 1970's. Considerable public utility sales data is still noted. Major electric and gas utilities furnish on an annual basis very complete financial and statistical reports to the Federal Energy Regulatory Commission. Utilities classified as holding companies do the same with the Security and Exchange Commission. Informative data may also be found through the Rural Electrification Administration of the Department of Agriculture. In addition, the Federal Communication Commission is a source of data including transfer information. Various state regulatory agencies are also sources of public utility sales data for water, sewer, irrigation and cable television systems.

In addition, there are a number of public utility trade and source organizations, such as the Edison Electric Institute and the National Association of Regulatory Utility Commissioners. These, as well as other organizations publish an extensive variety of statistical data including financing and operating performances of individual companies. Other sources of data include industry trade journals. With some diligence sales information can be abstracted from Moody's Public Utility Manual. Stock prospectuses for public utility companies will often reveal transfer data.

There is one characteristic that lends considerable assistance to the valuation analyst utilizing the Sales Comparison Approach. Most utilities operate under some form of regulation. A part of most systems of regulation is the conformance to a uniform system of accounting. Utility operational data is usually available with a minimum of research. This aids greatly in drawing comparisons between utilities in the same industry. In that utilities are generally regulated by some judicial body, sale and purchase of utility property is often heard before a regulatory body. Frequently, quite complete sales information, including motivation, is well recorded. This availability of comparative data is rarely found in other types of property valuation.

Although it may, at times, be difficult to ascertain the physical comparability between one utility holding and another, there is a definite inherent degree of comparability in that they are like utilities and that they provide essentially the same service. Hence, the question of highest and best use is not a paramount problem as often is the case in the sales analysis of other types of property.

The measurement of the impact of time is not as problematic in the valuation analysis of public utility property as is often found in other valuation problems. Public utility values often follow general or national trends as to the impact of time. They are not as sensitive to short run influences as noted in more localized real estate markets. Experience has shown that the effect of time on public utility sales tends to track closely that of national or large area regional indices (e.g. Consumer Price Index, electric and other utility price indices, the Handy-Whitman Index, etc.).

Influences on value, that are peculiarly local, are not as evident in the valuation of public utility holdings than other real estate types. The market for public utility property is more influenced by macro-market forces rather than micro-market influences. Externalities such as social, economic, political and technological changes appear to impact public utility property more heavily than experienced by many other classes of property. Sales analysis, however, should consider the impact of system densities, customer mix (e. g. residential, commercial, industrial, etc.), growth and demand patterns and other factors directly influenced by location.

The sales analysis of public utility property is not without limitations. Transfers are admittedly infrequent resulting in an extended research period as well as utilizing an extensive geographical market area. Some sales data will be included in a public utility valuation that may be less than ideal. However, public utility property does transfer and a carefully researched valuation study will provide reliable indicators of value.

Public utility sales data will indicate central tendencies. Sales data will establish a range of comparative unit values (e.g. price per capita, price per customer, price per installation, sale price per mile, etc.). In addition, revenue multipliers and capitalization rates often can be abstracted from sales data for public utility holdings. The relationship between market value and book value can also be tested. As has been observed, the selection of multipliers, capitalization rates and yield rates, without sales data, is highly conjectural and is subject to error.

In relation to many investments, public utility properties are favorably characterized for market analysis. They are homogeneous to product and fairly homogeneous as to technology and markets. In addition, public utilities are generally subject to unusually uniform accounting standards. Considerable market data involving public utility property is public data resulting in fairly accurate evidence in relationship to other real property transfer data.

The Sales Comparison Approach is not a panacea for the valuation of public utility projects. It is probably not valid for large scale system evaluations. Market interpretations from one class of utilities should not be extended to other classes of public utilities. So-called "rules of thumb" generated by brief overviews of data are extremely dangerous as value predictors and should be avoided. Nevertheless, strong argument can be made for including the Sales Comparison Approach in a public utility valuation.

VALUATION GLOSSARY

Special Purpose Property:

A limited market property with a unique physical design, special construction materials, or a layout that restricts its utility to the use for which it was built.

Discounted Cash Flow (DCF) Analysis:

A procedure in which a discount rate is applied to a set of projected income streams and a reversion.

Discount Rate:

A yield rate used to convert future payments into present value.

Capitalization Rate:

Any rate used to convert income into value

Direct Capitalization:

A capitalization methodology that utilizes capitalization rates and multipliers extracted from sales data. Only the first year's income is considered. Yield and value change are implied, but not identified.

Reversion:

A lump sum benefit that an investor receives or expects to receive at the termination of the investment.

Depreciation (Valuation):

In valuation, a loss in property value from any cause; the difference between the reproduction cost or replacement cost of an improvement on the effective date of the valuation and the market value of the improvement on the same date.

Depreciation (Accounting):

In accounting, an allowance made against the loss in value of an asset for a defined purpose and computed using a specified method.

Source: The Dictionary of Real Estate Appraisal, Third Edition
Appraisal Institute
Chicago, IL (1993)

QUESTION AND ANSWER CORNER:

Q. Is it difficult to find sale data for special purpose property such as hydroelectric plants?

A. Certainly, but finding sales is not insurmountable. Granted, the research period has to be extended and some data will be included in a special purpose property valuation that may be less than ideal. However, special purpose property does transfer and a carefully researched analysis will provide reliable indicators of value.

Q. If market evidence is limited, what does sales data of limited market property, such as hydroelectric plants, indicate?

A. Sales data will indicate central tendencies within the market for unusual property types. Most importantly, sales evidence is an important identifier of trends.

Q. What specific information can hydroelectric project sales data provide decision makers?

A. Sales data will establish a range of comparative unit values (e.g. sale price per name plate kw). In addition, multipliers and rates may be abstracted from sales data providing support to the analyst's estimations. The selection of multipliers, capitalization rates and yield rates, without sales data, is highly conjectural and is always subject to error.

Q. How do the courts react to sales evidence in valuation cases?

A. The courts have reacted most favorably to sales evidence as compared to cost and income support. Sales evidence reflects most accurately the actual conditions of the market. The courts have indicated that the sales comparison approach should be developed and relied upon whenever there is adequate market data.

Q. Isn't the cost approach the most reliable indicator of value for special purpose properties.

A. In some cases the cost approach will provide a reasonable indication of value. The difficulty of the cost approach in the valuation of special purpose property is the problem of estimating accrued depreciation. The best method of estimating accrued depreciation is through abstraction from sales evidence. Without sales evidence, the estimation of depreciation is highly conjectural.
