

# Effective Appraisal in Hot Real Estate Markets

Robert J. Gloude-mans

## Introduction

Real estate markets have been prosperous in recent years, particularly in the western states. Increasing price levels raise challenges for assessment administrators, but also bring opportunities for effectively using market-based appraisal techniques, improving equity, and increasing the credibility of property tax administration. This paper summarizes these challenges and opportunities.

## Valuation Standards

All states should have strong valuation standards. These standards ensure that property values are reasonably accurate and fair. The International Association of Assessing Officers (IAAO) has adopted voluntary sales ratio standards designed to ensure reasonable assessment accuracy (table 1) (IAAO 1990a; 1990b). Most states have adopted similar standards.

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*This paper was presented at the Annual Conference of Western States Association of Tax Administrators, Austin, Texas, September 10-13, 1995.*

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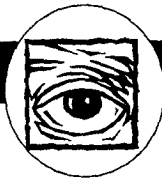
**Table 1**  
**IAAO Sales Ratio Standards**

- I. Level of appraisal
  - A. Overall median sales ratio of 0.90 to 1.10
  - B. Median for each major stratum of  $\pm 5$  percent of overall median
- II. Uniformity of appraisal
  - A. Residential
    - 1. Newer, homogeneous areas—COD  $\leq 10.0$
    - 2. Older, heterogeneous areas—COD  $\leq 15.0$
  - B. Commercial
    - 1. Larger, urban areas—COD  $\leq 15$
    - 2. Smaller, rural areas—COD  $\leq 20$
  - C. Vacant Land—COD  $\leq 20$
- III. Vertical (price-related) equity
  - Price-related differential (PRD) of 0.98-1.03

Meeting these standards in rapidly changing markets is difficult. Rising price levels will lower measures of central tendency, and uneven patterns of change will distort equity.

Assessment administrators have basically two choices: let standards slide or change values more frequently to keep up with current markets. For those dedicated to effective assessments, the choice is simple. Properties must be reappraised more often and equity maintained. Failure to maintain assessed values close to the market deceives property owners, masks inequities, and adversely affects school aid and other programs tied to assessed values.

To be clear, the author does not believe that valuations must average 100 percent of current market values, or even that this would be necessarily desirable, because an unacceptable percentage of properties might be appraised



significantly above market value (table 2). However, the reasonable standards adopted in the IAAO *Standard on Ratio Studies* (1990b) should be maintained.

**Table 2**  
**Distribution of Appraised Values Relative to Market Values**

**Part A: When Target (Average) Appraisal Level Is 100 Percent**

Ratio of appraised value to market value	Percent of parcels at indicated ratio		
	COD = 10	COD = 15	COD = 20
Less than 0.75	2.5	9.2	15.9
0.75-0.85	9.0	11.6	11.5
0.75-1.15	77.0	57.6	45.2
1.15-1.25	9.0	11.6	11.5
More than 1.25	2.5	9.2	15.9

**Part B: When Target (Average) Appraisal Level Is 90 Percent**

Ratio of appraised value to market value	Percent of parcels at indicated ratio		
	COD = 10	COD = 15	COD = 20
Less than 0.75	8.2	18.7	25.1
0.75-0.85	8.8	19.5	17.6
0.75-1.15	81.7	54.9	44.0
1.15-1.25	1.2	6.5	7.4
More than 1.25	0.1	0.4	5.9

**Note:** Assumes that ratios are normally distributed. If ratios are skewed, a greater percentage will lie below 0.75 and/or above 1.25.

**Valuation Methods**

Assessment administrators have an arsenal of valuation tools traditionally categorized under the sales comparison, cost, and income approaches to value. All require adequate market data.

When adequate sales data are available, the sales comparison approach is generally regarded as the preferred method, because it is objective and uses market sales. Fortunately, increased sales activity associated with hot real estate markets makes the sales comparison approach easier to apply and more effective.

Certainly, the recent trend in the western states is increased use of and reliance on the sales comparison approach. Generally this takes the form of multiple regression analysis (MRA), although adaptive estimation procedure, or "feedback," presents an effective alternative. In Arizona, MRA equations are converted to "base home" tables for ease of understanding and explanation (several other jurisdictions are also using this approach).

The trend toward an emphasis on the sales comparison approach has also been fueled by the decreased cost of computer hardware, improved computer-assisted mass appraisal software, and widespread availability of statistical software packages, particularly at the personal computer level (Gloudemans 1994).

The cost approach, the traditional mass appraisal workhorse, becomes problematic in hot real estate markets (as well as depressed markets). This approach can still be used effectively, but costs must be kept current and values tested against the market. Depreciation schedules must also be accurate. Often, too much depreciation is applied in desirable, well-established market areas.

The income approach is generally the technique of choice for income properties, such as apartments, retail stores, and office buildings. In hot markets, assessors must be especially vigilant to keep rental data current. Older leases, even those with step-up or escalator clauses, must be reviewed. On the positive side, there may well be more lease data available, and greater sales activity helps in developing market-based income multipliers and overall rates.

**Adjusting Sales**

A specific, critical requirement in effectively appraising hot real estate markets is a credible time-adjustment program. Sales must be adjusted to a current, common point in time (generally the "assessment" or "valuation" date). If this is not done, all sales-based appraisal techniques will be biased, and market standards are unlikely to be met. Also, assessment officials will not know the true level of appraisal and therefore will not be able to make proper valuation decisions. Thus, sales must be properly adjusted for time, both in valuation programs and in sales ratio studies.

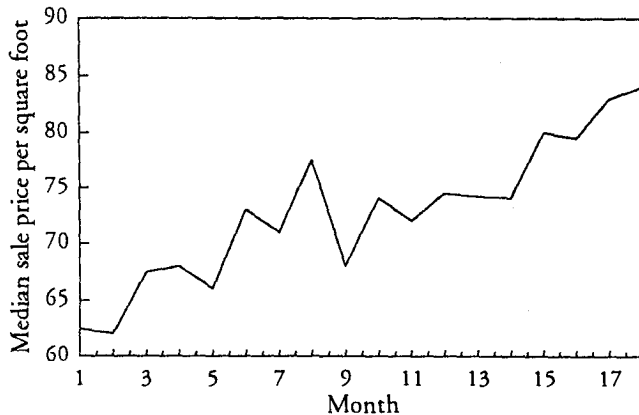
There are at least four valid time-adjustment techniques in mass appraisal (the traditional fee appraisal approach of paired-sales analysis is impractical). First, date of sale can be included in multiple regression programs. Many western counties with MRA-based appraisal programs use this approach.

Second, sales prices can be expressed on an appropriate per-unit basis (for example, price per square foot or per apartment unit) and trends analyzed (figure 1). This is an intuitive, easily explained approach, but can be unreliable if the number of sales is not large enough to compensate for natural variations over time in the size and quality of properties sold.

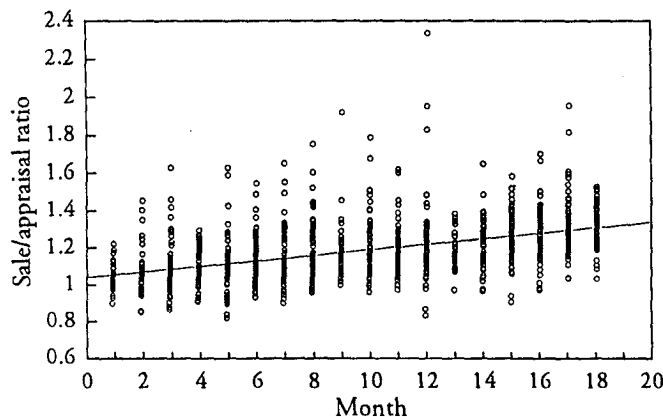
Third, sale/appraisal ratios can be plotted against time and a trend line extracted (figure 2). The trend may be more easy to visualize if median or mean appraisal ratios are plotted against month of sale (figure 3); however, the reliability of the resulting trend line is somewhat compromised. This approach has the advantage that it is applicable to all property types, requiring only data on



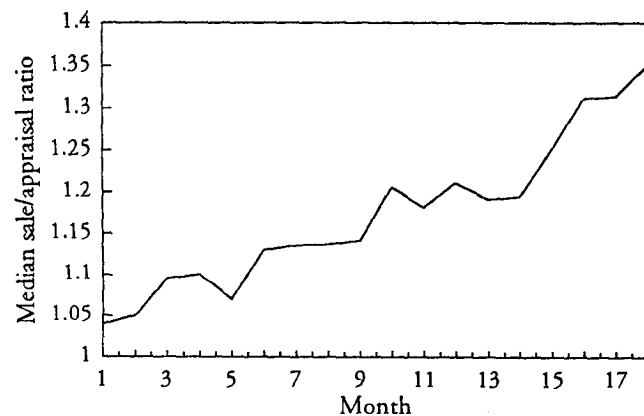
**Figure 1**  
Plot of Median Sales Prices per Square Foot with Time



**Figure 2**  
Plot of Sale/Appraisal Ratios with Time



**Figure 3**  
Plot of Median Sale/Appraisal Ratios with Time



sale price, the prior appraised value, and date of sale. However, the approach assumes that all properties in a given sample were last appraised at a common point in time. The method can break down when there is wide dispersion in sales ratios (poor coefficients of dispersion [CODs]).

Fourth, resales can be analyzed. Although not often utilized, this method can be useful when there is a large volume of sales and therefore adequate resales for analysis. Of course, properties with significant physical changes must be eliminated.

### Update Strategies

On the administrative side, hot real estate markets challenge assessing officers to develop effective update strategies. Periodic reappraisal (say, every three or five years) without interim adjustments obviously will not cut it. Although common in the eastern part of the United States, few if any western states follow this approach. A superior strategy, followed in several western states, is physically to appraise a given portion of the county on a rotating basis (for example, every four years) and trend values in other areas based on sales ratio studies. This approach is meritorious when appraisals are well done, establishing a sound basis for interim adjustments. Of course, because changes in value vary by area and property type, sales ratio studies must be stratified so as to capture such variations.

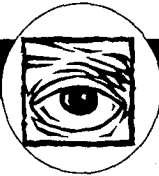
An increasingly common approach is full recalibration of mass appraisal models every year or two. This approach maximizes accuracy but can introduce instability. Jurisdictions that frequently reappraise have found that using three (or more) years of sales in modeling not only increases sample sizes, but also lends year-to-year stability to models.

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## Conclusions

Reappraising in hot real estate markets is exciting (certainly more so than in depressed markets)! Challenges abound. More sales must be processed, more inspections made, time trends captured, and property values updated more frequently. More appeals *may* be filed, and management is generally more difficult. At the same time, increased market data make it easier to develop mass appraisal models, support values, and perform sales ratio studies.

At the local level, assessors are charged with the responsibility of appraising property accurately and maintaining a credible valuation base. Although politics can be complicating, in the long run the credibility of both the assessor and the profession is improved by meeting the challenge and producing accurate and fair valuations. At the state level, policymakers must clarify legal requirements, support local assessors in carrying out their responsibilities, and impose appropriate penalties on jurisdictions that skirt state mandates.

Valuation equity can be effectively maintained in hot real estate markets. The process is challenging but rewarding. Improving real estate markets are an indication of prosperity. Those who meet the challenge of capturing changing values exhibit professionalism and serve their communities well by contributing to a strong, fair, and credible fiscal structure.

## References

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