

## Guidelines for Defining the Scope of Market Analysis in Appraisal Assignments

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Because market analysis can vary greatly depending on the data or assignment, it is apparent that, even though market analysis can never be standardized, more specific guidelines are needed for this section of the appraisal report. In this article, some guidelines for conducting a market analysis are suggested, and the varying degrees of detail in such an analysis are outlined. Specific examples that can be used in typical appraisal assignments are provided. The material is arranged by level of complexity, and opinions are offered as to when each level might most appropriately be used.

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**M**arket analysis is an essential part of all appraisal assignments; however, the appraisal profession has not provided specific guidelines for the market analysis section of an appraisal report. This recently became apparent when a client asked why he receives differing market analyses from Members of the American Institute of Real Estate Appraisers (MAIs). Not knowing the answer, I searched the literature but found little help.

When telephone calls to colleagues also failed to reveal definitive answers, I realized the need for such guidelines.

The following is one approach to describing what to expect when a market value appraisal is commissioned. We are not suggesting that market analysis can be standardized. As one expert in the field has stated, "Market analysis is like trying to nail Jell-o<sup>®</sup> to a wall."<sup>1</sup> Still, that "Jell-o<sup>®</sup>" can be bet-

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1. Discussion with Terry V. Grissom, Associate Research Economist, The Real Estate Center, Texas A&M University.

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ter understood, and the intent of this article is to further that understanding.

In *The Appraisal of Real Estate*, ninth edition, the Appraisal Institute takes a step toward filling the current void by devoting a special section to market analysis and providing examples of steps to be used in appraisals.<sup>2</sup> However, in a sample review of appraisals performed by various members of the appraisal industry, Charles P. Cartee discovered that only a small percentage of appraisers were actually using the market analysis procedures (which was also confirmed by an informal survey of 10 MAIs).<sup>3</sup> It can be deduced, then, that the information and examples furnished by the Appraisal Institute are insufficient.

Just as in the direct sales comparison approach, the detail of a market analysis will vary with different assignments and data; it is this range of detail that is the main concern of this article. Table I and the text present specific market analysis data and techniques that can be used in typical appraisal assignments. The material is arranged in levels A through D, with Level A the least complex and Level D the most complex of the market analyses. Finally, opinions are offered as to when each level might most appropriately be used. Each level of analysis will address location, supply, demand, marketability, and highest and best use. Also emphasized is the dual role of market analysis, which is to support highest and best use conclusions, and complement and support the three approaches to value, particularly

the sales comparison and income capitalization approaches.<sup>4</sup>

## LEVEL A MARKET ANALYSIS

### Location

At this level, locational analysis is general and broadly descriptive. Secondary materials supplied by local government and other public agencies are typically employed. From these materials a general description of the city and neighborhood is constructed. Data are updated annually. No attempt is made to analyze the subject's competitive advantages or disadvantages in terms of location. The same analysis could be customarily applied to any similar property in the area.

### Market analysis

Demand is established by statistics of recent sales (usually one year) and leasings of similar properties and supported by city and regional growth trends that appear positive.

Supply is determined by studying the vacancy rates of selected comparable rentals or sales. These findings are intended to be representative of market vacancy rates and are considered to be stable.

### Marketability (equilibrium analysis) and highest and best use studies<sup>5</sup>

This part of the analysis involves viewing the subject in relation to location and market studies and drawing conclusions about highest and best use and marketability. There are two general categories of subjects: improved properties and

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*The level of market analysis is determined by complexity and addresses location, supply and demand, marketability, and highest and best use.*

2. American Inst. of Real Estate Appraisers, *The Appraisal of Real Estate*, 9th ed. (Chicago: American Inst. of Real Estate Appraisers, 1987), 49-50.

3. Charles P. Cartee, "Market Analysis: Its Interface with the Review, the Appraisal and the Feasibility Process," *Appraisal Review Journal* (Winter 1982): 63.

4. American Inst. of Real Estate Appraisers, 32, 42, 270.

5. Marketability and equilibrium analyses are used synonymously in this article as they pertain to the relationship of supply and demand.

**TABLE 1 Levels of Appraisal Market Analysis**

Work Item	Level of Analysis			
	A	B	C	D
Location				
General description—city and neighborhood	X	X	X	X
Specific analysis of site linkages		X	X	X
Specific analysis of urban growth determinants		X	X	X
Detailed competitive-location rating			X	X
Detailed growth potential-timing analysis				X
Demand and Supply				
Demand analysis				
General evidence from sales and leasing occurring	X	X	X	X
General city growth trends appear positive	X	X	X	X
Secondary data—total market absorption method		X	X	X
Forecast demand by specific market determinants			X	X
Segment demand by subject submarket			X	X
Direct attitudinal surveys by target submarkets				X
Competitive supply analysis				
Vacancy indications by selected comparables	X	X	X	X
Vacancy data from secondary-source surveys of broad market		X	X	X
Original field research of all competitive properties			X	X
Original research of planned projects			X	X
Detailed competitive-amenities rating			X	X
Direct formal interview of product providers				X
Marketability (Equilibrium Analysis) and Highest and Best Use Studies				
Improved properties				
General ad hoc judgments—narrative form	X			
Net operating income ( <i>NOI</i> ) projection supported by selected comparables	X	X	X	X
Project use-time- <i>NOI</i> supported by secondary data		X	X	X
<i>NOI</i> capture estimate based on submarket marginal demand and competitive ratings			X	X
Risk analysis of forecasted <i>NOI</i>				X
Value impact analysis of alternative market strategies and property design				X
Vacant land				
Probable use and timing based on ad hoc judgments	X			
Original generalized land use plan				
Probable use supported by present value analysis		X		
Timing supported by secondary data		X	X	X
Original specific land use plan				
Probable use supported by present value analysis		X	X	X
Specific land use plan developed by the appraiser			X	X
Timing projection based on marginal demand and competitive rating analysis			X	X
Preliminary development-cost estimate for subject			X	X
Value impact analysis of alternate development and marketing strategies				X

vacant land. Both categories require projecting probable use and timing for that use. A traditional Level A appraisal focuses on highest and best use, while the question of marketability (timing) is based on the appraiser's perception of the market for potential trends as opposed to specific supportive data.

In a Level A analysis, the question of use for improved properties is fairly straightforward. If the property improvements are in good condition, if comparable sales have been found in which investors have bought similar properties for a similar use, if the overall market appears favorable, and if the area is clearly not in transition then the

current use is considered the best use. The anticipated timing for the use in, for example, income property is a function of its marginal demand and is linked directly with the *NOI* projection. The data from vacancy, rent, and expense performances from a selected base of comparables are employed in a Level A analysis, and these figures are projected as the subject's future performance.

The use question for vacant land is handled in a similar manner. It is usually answered by examining those uses permitted under current zoning laws. The timing for the use is usually assumed to be immediate if comparable sales can be found.

In summary, Level A studies are more descriptive than analytic, more historic than futuristic and utilize a sampling of comparable sales and rentals that is intended to be representative of the particular market's demand and supply.

## LEVEL B MARKET ANALYSIS

### Location

In Level B, the analysis of Level A is incorporated, and a specific analysis of site linkages and an item-by-item analysis of urban growth determinants for use are added.

### Site linkages

"The point is to examine the proposed site and its immediate surroundings for linkages to supply and demand."<sup>6</sup> For example, assume that in a small city the major arterials include east-west and north-south roadways and that the

community's major retail establishments are located at the intersection of these roadways. A large lake lies to the southeast and an airport to the southwest. Residential growth is northward. These urban growth determinants indicate that a retail center proposed for the south side of the city just above the lake is not very feasible because the linkages to the market are not ideal.

### Urban growth determinants

Another step in the analysis is to focus on the urban growth characteristics that support the subject's potential use.<sup>7</sup> Land use trends such as urban growth patterns typical in the area are compared to the linkage analysis. This comparison results in the identification of general developmental patterns such as the growth of a concentrated zone, sector, wedge, multinuclear, or radial corridor. Next the appraiser should consider the predominant direction of this growth and the public planning policies and trends. Such growth determinants include: 1) natural features such as lakes, topography, and so forth that might influence use; 2) area linkages such as transportation and utilities; and 3) dynamic attributes such as reputation of the area, the quality of the schools, and the historical background. Each determinant is analyzed separately and then reconciled into a final estimate of the land use pattern anticipated for the area and the subject.

The major difference between Level A and Level B analysis is that Level A is restricted to general depictions whereas in Level B item-by-item specifics related to the

*A Level A analysis of location is general and broadly descriptive.*

*A depiction of the city and neighborhood is constructed from secondary materials supplied by the local government and public agencies.*

*In a Level B analysis of location, information from Level A is incorporated and a specific analysis of site linkages and an item-by-item analysis of urban growth determinants for use are added.*

6. John M. Clapp, *Handbook for Real Estate Market Analysis* (Englewood Cliffs, N.J.: Prentice-Hall, 1987), 13.

7. See W. B. Martin, "How to Predict Urban Growth Paths," *The Appraisal Journal* (April 1984): 242-249; Richard B. Andrews, *Urban Land Economics and Public Policy* (New York: Free Press, 1971); and F. Stuart Chapin, Jr. and Edward J. Kaiser, *Urban Land Use Planning* (Urbana, Ill.: University of Illinois, 1979).

*Level B is the first level in which specific quantifiable data for answering use and timing questions are employed.*

*In Level C market analysis, techniques shift from being historically oriented to future-oriented.*

subject's probable use and the timing for that use are incorporated. Each analysis of location for Level B requires original conclusions that apply to the specific subject property, while a Level A analysis remains general enough to be adequate for any similar property in the subject neighborhood.

### **Demand and supply**

#### **Demand**

Level B analysis incorporates Level A analysis and adds the use of data from regularly published areawide market surveys. Typically, these surveys cover a broad area and the forecast of demand is usually measured by a method such as net lease up (the difference between new and expired leases). Thus, the current market leasing pattern is projected as the continuing marginal demand for the next few years.

#### **Supply**

Level B supply analysis resembles demand analysis in that, again, regularly published market studies are employed, which provide a total picture of the number of similarly used properties in a given area. This can be contrasted to Level A, in which only selected vacancy comparables are considered when drawing inferential conclusions about the total market. However, although secondary total-market data increase reliability, the data are liable to be so broad-based that Level B analyses may cover many projects not in competition with the subject.

### **Marketability (equilibrium analysis) and highest and best use**

Level B analysis is the first level in which specific quantifiable data

contribute to answering use and timing questions. Data specifically relating to the time element of the estimated use are offered in location and market analyses, and it becomes apparent that timing is connected to demand. For example, high demand and low supply suggest high marginal demand, thus pinpointing the time at which the project will probably experience the greatest success at absorption or maintaining or increasing its *NOI*.

Level A data, then, can be viewed as somewhat generic, tending toward ad hoc judgments on use and timing, whereas in Level B, specific data on location or marginal demand are provided in support of use and timing judgments.

## **LEVEL C MARKET ANALYSIS**

### **Location**

Level C adds to the previous analyses a detailed quantifiable competitive rating of location.<sup>8</sup> For example, assume the subject is an existent medium-sized retail center at a major intersection. The subject corner is rated in relation to other competitive corners and scored on such items as number of housing units, income of residents, traffic counts, and so forth. The result is a quantifiable comparative rating that can be used in estimating the capture rate for the subject, which, in turn, becomes a major element in the *NOI* projection.

### **Demand and supply**

In Levels A and B, historic absorption rates are relied on as the primary barometer of future absorption. In Level C, a major shift is made from historically oriented to future-oriented techniques. In

8. Steve Fanning and Jody Winslow of Fanning Associates, "Competitive Location Rating for Market Analysis," in-house working paper, March 1988.

Level C, the basic market-analysis steps employed are:

even further refined to new demand for the subject submarket.

$$\left( \begin{array}{l} \text{Demand} \\ \text{from} \\ \text{new} \\ \text{growth} \end{array} + \begin{array}{l} \text{Move-} \\ \text{up} \\ \text{demand} \end{array} + \begin{array}{l} \text{Normal} \\ \text{+ vacancy} \end{array} \right) - \left( \begin{array}{l} \text{Competitive} \\ \text{vacant} \\ \text{space} \end{array} + \begin{array}{l} \text{Planned} \\ \text{new} \\ \text{competitive} \\ \text{supply} \end{array} = \begin{array}{l} \text{Marginal} \\ \text{demand} \end{array} \right)$$

On completion of these steps, the marginal demand conclusions can then be used to determine market-ability. For example, negative marginal demand usually indicates slow absorption, declining rents, and possibly decreasing average occupancy rates; positive marginal demand indicates the opposite. Other uses of the marginal demand conclusions include contributing to a resolution of the probable use-timing questions mentioned in the vacant land analysis.

#### Demand

An estimate of future demand is derived from projections of population, income, or employment growth. The appraiser compares his or her own projections to secondary sources such as city projections. In a recent article on office demand, J. R. Kimball and Barbara S. Bloomberg present an example of this kind of study.<sup>9</sup> The appraiser should also be aware that these projections can be further supplemented by such methods as the sister-city approach, which studies a city that is currently the size that the subject city is anticipated to reach during the projection period.<sup>10</sup> Comparing the square footage of existing land use in the sister city to that of the subject city provides data for projecting growth. When all the approaches have been explored, the results are compared and reconciled to arrive at a narrow range for the demand projections; areawide data are normally

#### Supply

Supply analysis in a Level C appraisal report involves original field research. The appraiser must conduct a survey of all or most (90%+) of the competitive projects and produce charts indicating specific results, including contact name, address, and size of the project; occupancy level; and amenities such as parking, landscaping, and so forth. In addition to surveying existing supply, the appraiser must also collect information on any planned competitive supply. This information is usually gathered from interviews with city staff and developers as well as preliminary plat surveys.

The results of a Level C supply analysis can be significantly different from those of a Level B analysis. A study was conducted of a retail center in a major metropolitan area. The regularly published survey included a large area, and the midyear 1987 average occupancy level was 84% and projected to decline to 72% by year-end 1987. A Level C specific competitive project survey was also conducted and showed that as of October 1987, the average occupancy of the subject's competitive project was only 56%. This additional research also revealed that new projects were being developed, information that is not always included in the secondary data of total-market surveys.

The appraiser and client must recognize that such errors may oc-

*An estimate of future demand is derived from projections of population, income, or employment growth, and these projections can be further supplemented by the sister-city approach.*

*Supply analysis in Level C also includes comparing amenities and judging the importance of these features.*

9. J. R. Kimball and Barbara S. Bloomberg, "Office Space Demand Analysis," *The Appraisal Journal* (October 1987): 567-578.

10. Steve Fanning of Fanning Associates, "Land Use and Comparable City Analysis," in-house working paper, spring 1988.

*Marketability for improved property under Level C is addressed by looking at the specific submarket of office space and basing NOI and absorption on the subject's competitive position relative to the submarket.*

cur using generalized B-level data. Thus, the level of study is dependent on the degree of risk the appraiser and the client are willing to assume and the certainty of the data on which decisions will be made.

In a Level C market analysis the appraiser also compares amenities and judges the importance of certain features. For instance, in an office building market, competitive projects' amenities such as the number of parking spaces per office, number of elevators, employee lunchroom, and access to shopping or restaurants are examined. A nonstructured tenant survey will indicate the relative importance of each of these features to the leasing decision, thus allowing the appraiser to assign a relative value to each item (e.g., elevators may be twice as important as an employee lunchroom). The sum of the amenities' rating will assist the analyst in ranking the subject's competition, and hence its potential absorption into the market and the *NOI* outlook. See John M. Clapp's book for an example of this analysis technique.<sup>11</sup>

#### **Marketability (equilibrium analysis) and highest and best use**

##### **Vacant land**

The last step in the highest and best use analysis is to evaluate the site, location, market demand and supply, and economic highest present value of the land use mix and apply the conclusions to the physical layout and attributes of the property.<sup>12</sup> The result is a specific land use plan developed by the ap-

praiser that can then be used for the valuation estimation of the existing property, based on its developmental potential.

##### **Improved property**

In Level C market analyses, the submarket marginal demand and the competitive locational and amenities ratings furnish detailed support for the *NOI* capture estimate and the projected absorption.<sup>13</sup> To use office space as an example, in a Level B analysis, total demand would be used and it would be assumed that all projects compete equally. In a Level C analysis, the specific submarket of office space (Class A, in the northwest part of Town X, for instance) and base *NOI* and absorption on the subject's specific competitive position relative to the submarket would be addressed.

To further illustrate, assume that an office building with the only covered parking in the area is located in the central business district. A Level C locational rating provides insight into the competitiveness of the downtown area versus alternative sites. The demand projection would give the overall future tenant base. The competitive supply survey would indicate the scale of the submarket competition, and the competitive amenities rating would provide a basis for estimating the effect of the covered parking on rent and occupancy. Finally, the marketability analysis would combine all this data to permit a specific capture projection for the subject's *NOI*.

11. Clapp, 141-143.

12. Richard B. Peisner, "Optimizing Profits from Land Use Planning," *Urban Land*, vol. 41, no. 9 (September 1982): 6.

13. American Inst. of Real Estate Appraisers, 132.

## LEVEL D MARKET ANALYSIS

### Location

In a Level D market analysis, the detailed projections of probable future land use are emphasized. Analyses of public and private fiscal capabilities and policies are typically included. Also in Level D, the details of preliminary and final platting are surveyed and analyzed by land use type and location.

### Demand and supply

#### Demand

Level D adds more refined and specific analytical techniques such as weighted probability and direct sampling. Weighted probability makes use of studies similar to that in James Kuhle and Terry Grissom's article in which the probability of existing vacancies are weighed by investigating current competitive leases and estimating the remaining economic life of the existing stock.<sup>14</sup> Unlike Level C, in which nonstructured survey techniques are employed, in Level D, attitudinal surveys are used. These usually involve gathering data from interviewing consumers and structuring that data according to survey and statistical analysis standards. While the subgroup demand of the specific subject location and population are addressed in Level C, in Level D, submarket participants are interviewed directly concerning their attitudes toward a specific subject attribute. For example, a structured market survey might elicit such detail as the demand for fireplaces in apartments, or it might determine what tenants in existing space would be

required to relocate to the subject property. Use of the data in Level D may support, refute, or add perspective to the generalized secondary data and the specific demand-forecast data of Levels B and C.

#### Supply

In a Level D market analysis, direct evidence provided by market participants is incorporated. Interviews with potential developers, as well as project tenants, sketch the most accurate picture of existing and planned supply.

### Marketability (equilibrium analysis) and highest and best use

#### Vacant land

A Level D market analysis includes a more detailed development cost estimate. Because of the detail of cost estimating in Level D, a civil engineer is usually required as part of the appraisal team. In addition, the data from market interviews and alternative marketing and development strategies are considered. The associated risk and effect on value of each alternative can be outlined.

#### Improved properties (existing or proposed)

Risk analysis for *NOI* and absorption projections is added in Level D market analysis. Alternative estimates of future outcomes can be employed to evaluate risk by using a summary of location and subject factors and other influences on the subject's existing or potential productivity. Alternative project designs are compared to alternative target markets with indicated values associated with each alternative.

*In Level D, market analysis is more refined by the addition of specific analytical techniques such as weighted probability and direct sampling.*

*In Level D marketability, risk analysis for NOI and absorption projections are added.*

14. James Kuhle and Terry Grissom, "Space Time Segmentation Techniques: A New Approach to Market Analysis," *Real Estate Issues*, vol. 8, no. 2 (Fall/Winter 1983): 23.



## CRITERIA FOR SELECTING ANALYSIS LEVEL

Four levels of market analysis have been reviewed. When each level might be most effectively used appears to depend on one or more of following conditions:

1. Regulatory requirements of the Appraisal Institute and regulations such as the Federal Home Loan Bank Board's (FHLBB) 12 CFR, parts 563 and 571
2. Data required for the client's decision-making process
3. Prevailing market conditions at the valuation date
4. Project size and type (uncertainties as to use, timing for that use, or future *NOI*)

### Regulatory requirements

The Appraisal Institute's *Professional Ethics and Standards* require, among other things, that an appraiser's analysis "consider the effect on use and value of the following factors: existing land use regulations, reasonably probable modifications of such land use regulations, *economic demand*, the physical adaptability of the property, neighborhood trends, and the highest and best use of the property" (emphasis added).<sup>15</sup>

The problem arises over what constitutes a minimal analysis of the material. To date, the appraisal profession has not generated guidelines that are sufficiently concrete to answer this question accurately. This deficiency contrasts with other traditions, such as guidelines for the sales comparison approach, in which specific sale data and comparison are required.

It is clear, then, that market analysis must be addressed at some level in all appraisals but at which level seems to be uncertain. The following observations are a beginning for resolving that uncertainty: 1) Level A analyses appear to meet the current minimum requirements of the Appraisal Institute's Standard Rule 1-2, and 2) that Level B analyses appear to meet the minimum requirement of FHLBB 12 CFR, parts 563 and 571, which seems to emphasize market analysis more heavily. Whether such minimum requirements are adequate is another question. Further enunciation is necessary before the definition of minimum can be considered final.

### Lender-client needs

A considerable number of recent lending problems can be attributed, in part, to the lack of "appraisal report information to adequately document the market in which they were lending."<sup>16</sup> These lending problems arose, in large part, from ignoring the fact that the basis for profitability and value is marketability.<sup>17</sup> Thus, it seems that a market analysis should be thorough enough to give the client the confidence required to make a decision. The level of confidence required will depend to a large extent on the client's need to:

1. Increase the reliability of highest and best use conclusions
2. Increase the reliability of projections of market timing for the highest and best use
3. Increase the reliability of *NOI* projections
4. Provide documented support

15. American Inst. of Real Estate Appraisers, *Professional Ethics and Standards*, S.R.-1-2(c) (Chicago: American Inst. of Real Estate Appraisers, 1985), 22.

16. Clapp, 4.

17. John B. Bailey, "Marketing Analysis: A Needed Tool for Better Loan Appraisals," *The Mortgage Banker* (February 1976): 20-21.

of the highest and best use and *NOI* projections

5. Reduce mistakes of omission or commission
6. Provide documentation showing adherence to Appraisal Institute requirements and regulations such as 12 CFR, parts 563 and 571

Only the client, of course, can define his or her need. The definition should be based, however, on one or more of the following criteria.

#### **Market conditions at the valuation date**

The scope of the market analysis is dictated partly by prevailing market conditions. If the market is stable or balanced, a less intense analysis can achieve the requisite level of confidence. A stable market is usually characterized by:

1. Recent steady sales
2. No excessive building or lack of building
3. General public studies reporting a healthy balanced market

If these three conditions are evident a Level A or B analysis might be indicated. If, however, a market has experienced or is expected to experience rapid building, for example, then a Level C analysis should be considered. If an area has had few recent comparable sales, and if rapid building and general studies suggest that a market is approaching an unbalanced state, a Level C analysis would appear to be the minimum required for most appraisals.

However, these criteria should not be viewed in isolation; the client must also consider regulatory requirements, project type, and personal needs.

#### **Project size**

The level of market analysis will vary with the type of property.<sup>18</sup>

Type of property refers to existing improved property, property with proposed improvement, or raw land. Size is related to type. For any income property, a Level B analysis would most likely be the minimum requirement. For any moderate-sized property (over \$1,000,000), or if there is any question at all about market supply and demand, a Level C analysis would be the recommended minimum.

Existing properties usually have some income history, and the use question is usually straightforward. The future *NOI*, however, is not as certain, and it is here that the importance of a more extensive market analysis must be emphasized. For a small project, such as one involving a small-income residential property, a Level A analysis could be employed.

Raw land, on the other hand, typically presents questions of alternative use and timing. Level A techniques could not produce a very reliable analysis; therefore, Level B should probably be used. As the tract size and the use alternatives increase, the appraisal should move up to Level C. If unstable market conditions exist, Level C would be considered a minimum in all cases, regardless of size.

Proposed improvements also entail a degree of uncertainty that normally requires a higher level of analysis (at a minimum, Level C, except for very small properties).

Again, project size must be considered simultaneously because size is frequently related to risk. For example, value is related to reasonable marketing time. Small properties typically have shorter

*Market conditions at the valuation date affect the level of market analysis to be used. If the market is stable or balanced, less intense analysis can achieve the required level of client confidence.*

*The level of market analysis detail will vary with the type of property, and size is related to type.*

18. G. Vincent Barrett, "Appraisal Should Be Market Study: Techniques of Analysis," *The Appraisal Journal* (October 1979): 538-555.

*As the project size and risk increase, the level of complexity in market analysis increases. Level D provides the highest degree of confidence for extremely large projects in unstable market conditions.*

marketing times, thus, lower risk; larger properties require longer marketing times, which demand a more detailed analysis and longer projections to improve the reliability of the appraisal. In larger projects, if the market projection is faulty, the error is compounded. It becomes apparent, then, that appraisers should develop a ratio between project risk and the extent of market studies. Using this four-level outline, the smallest typical appraisal assignment (small-income residential) would require a Level A analysis; most commercial properties (valued at \$1 million or more) would require a Level C analysis, particularly in unstable market conditions; and the most complex properties (i.e., a mixed-use, high-rise building) would call for a Level D analysis.

This leads to the question of how much time, on average, the different levels of analysis require. Generally, Level B analysis requires 20% to 30% more time than Level A; Level C may require 50% to 75% more time than Level B; and Level D may require 100% to 300% more time than Level C. (Level D analysis time varies greatly because the original research required.)

## CONCLUSION

Level A market analysis is general and descriptive, as opposed to subject specific and is based on historical data rather than future projection. Selected comparables are used to represent the market. Results of such an analysis may be applied to nearly any similar property in the city.

In a Level B market analysis, the specificity is increased by adding item-by-item analysis of urban-growth determinants of use. Area-wide market data are also incorporated. The projected use conclu-

sions are subject specific, and the timing projections are supported with quantifiable data.

A Level C analysis is even more specific because a detailed, quantifiable, competitive location rating that forms the conclusions about use and timing is employed. The historic absorption trends used in Levels A and B are abandoned and future demand, hence absorption, is projected by first projecting the growth of population, income, and employment. An original land use plan is conceptualized in terms of probable use, timing, and mixture of uses. A Level C analysis provides detailed submarket data on which to base projections of *NOI* and absorption and a subject-specific ranking of the subject's competitive position.

In a Level D analysis, detailed projections of future land use probability for the subject area are emphasized. Typically included are analyses of public and private fiscal capabilities and policies, as well as weighted probability for use projection and risk analysis. Direct sampling and interviews with market participants generate data about supply and demand. A more detailed cost estimate for the development of the subject is also presented.

The criteria for selecting the appropriate level of market analysis suggest that a Level A analysis is adequate for a small property in a stable market. As project size and risk increase, a Level B analysis is recommended. If a project is large (i.e., most commercial properties and projects of \$1 million or more) or the market shows signs of instability, and cash-equivalent sales are few, a Level C analysis becomes appropriate. A Level D analysis provides the highest degree of confidence for extremely large projects in unstable market conditions.