FEATURES

Apartment Market Analysis

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ABSTRACT

The purpose of market analysis is the collection and study of market data required to conclude highest and best use and to apply the approaches to value. Ultimately, market analysis is concerned with determining whether marginal or residual demand exists for a given property use, and if so the extent of that support The market analysis process presented here for apartment properties is defined by a six-step process, which lays out a road map to guide the analysis.

Purpose

The term *market analysis* refers to the study of market conditions for a specific property type. The purpose of market analysis is the collection and study of market data required to conclude highest and best use and to apply the approaches to value.

Ultimately, market analysis is concerned with determining whether marginal or residual demand exists for a given property use and, if so, the extent of that support. In this sense, the purpose of market analysis is to investigate the marketability of potential uses for a property and thereby lay the foundation for the analysis of their feasibility and a conclusion as to the highest and best use of the property. This conclusion will be as specific as the market suggests. For example, market analysis may reveal whether a proposed multifamily development should be owner-occupied condominiums or renter-occupied apartment units.

Market analysis is essential to the valuation of existing and proposed properties. Existing properties normally have an operating history–i.e., a record of occupancy, rents, and expenses. The use determination for an existing property is likely to be straightforward. Although future occupancy and income cannot be certain, a reasonable cash flow forecast can be developed on the basis of market analysis. A proposed property on a site that is either vacant or under another use, however, involves greater uncertainty and typically requires a more in-depth study.

The appraiser is required to develop an independent market analysis for every assignment. Some assignments may require nothing more than a macroeconomic study of the general market conditions impacting a particular property type. Known as a *market study,* this analysis looks at broad supply and demand conditions affecting the property type. Other assignments may require that the analysis go beyond a market study to what is referred to as a *marketability study.*

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This type of market analysis is a microeconomic study that focuses on how a particular property will be absorbed, sold, or leased under current or anticipated market conditions. A marketability study is appropriate for most valuation assignments because it is property-specific and identifies and measures the surrounding market that has an effect on a particular property.

Levels of Market Analysis

In real estate appraisal, there are four recognized levels of market analysis: A, B, C, and D. Levels A and B rely on current and historical market conditions to *infer* future supply and demand conditions. Levels C and D studies analyze current and historical market conditions, and also include fundamental analysis to *forecast* subject-specific supply, demand, absorption, and capture over the property's holding period. As the letters suggest, the level of analytical depth in a C or D study is greater than the depth of A and B studies.[1]

The level of market analysis required depends on several key considerations, but mainly on the size and complexity of the property and the size and condition of the market.[2] Ultimately, however, the level chosen is a function of reliability–an appraiser is only required to do what is necessary to produce reliable results. Level A is technically nothing more than a market study. It requires the least work since it includes market conditions for a *property type* only and relies on generally available published information. The strength of the market is inferred from *recent* sale and lease comparables. A Level A study is therefore only reliable for small, non-complex properties in a stable market. If the property is not small, non-complex, or in a stable market, Level A is inadequate. The appraiser must supplement the analysis and provide at least a Level B study to produce reliable results.

A Level B study, the simplest type of true marketability study, takes the information from Level A research and supplements it with *property-specific* information. The performance of comparable properties is considered and compared with the history of the subject property (if a history exists). Market strength is implied through total market demand. Historical trends–for the market, for comparable properties, and for the subject–are relied upon to indicate the subject property's future performance. A Level B analysis is more in-depth than a Level A analysis but it still relies strictly on current and historical information. This information is used to infer that future market conditions will replicate past market conditions. A Level B analysis is only adequate if the market is currently stable and expected to be stable in the future.

If a property fails to meet at least two of the three criteria listed above (i.e., small, non-complex, in a stable market), a Level B marketability study is probably inadequate and the appraiser will need to further supplement the analysis with a Level C marketability study. For instance, a relatively large apartment property with unique features in a declining market could only be understood with a Level C marketability study. In such a case, all three characteristics are lacking since the property is neither small nor simple, and the market is not stable. Under such conditions a Level B marketability study could not produce reliable results.

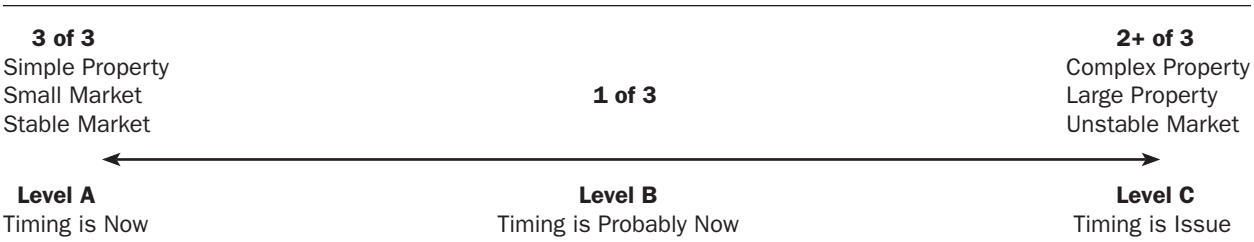
A Level C analysis considers current and historic market conditions, and also includes fundamental analysis to *forecast* subject-specific supply, demand, absorption, and capture over a specified period. Future demand and absorption are based on projections of the growth in population, income, and employment–the fundamental factors underlying the demand for real estate. By forecasting supply and demand, a determination can be made as to whether there will be an excess of supply, an excess of demand, or a balanced market. Once market conditions are established, judgments can be made about absorption, prices, rents, and leasing.

The decision criteria for which level of market analysis is appropriate for each appraisal assignment is summarized in Figure 1.

Thus, for a Level A study to be appropriate, the property must be relatively small (either with few tenants or owner-occupied) and the market must be stable and expected to remain that way by most market participants. Conversely, a Level C analysis

1. Level D is excluded from further consideration because it incorporates greater use of personal surveys and statistical analysis than is typically necessary with apartment property valuation.
2. Client needs can also play a role in the selection of the level of market analysis. Regulatory requirements dictate that market analysis is a required ingredient under USPAP and FIRREA, but neither document indicates the appropriate level for any given assignment.

Figure 1 Market Analysis Reliability Continuum



is appropriate when at least two of the criteria are not met. When only one of the criteria is not met, a Level B may produce reliable results.

The Apartment Market Analysis Process

No matter which level of marketability study is appropriate, all market analysis must proceed through six basic steps.[3]

1. *Property Productivity Analysis*
   The appraiser or analyst investigates the productive attributes of the subject property at the outset. These are features that shape the productive capabilities and potential uses of the property–i.e., its physical, legal, locational, and amenity attributes. Identifying the potential uses of the property allows the analyst to target potential users or the most likely market segment for the property.
2. *Specification of the Market of Most Probable Property Users*
   Market specification pinpoints the precise market segment to which the property will appeal by establishing the spatial dimensions and behavioral components of market demand. Accordingly, *market delineation* identifies the market area–i.e., the area in which similar properties compete with the subject property for probable tenants. The market area varies with the type and character of the apartment property (e.g., studio/efficiency units versus luxury units).

   This process of differentiating the subject property and other directly competitive properties from the broader stock of similar properties is called *market disaggregation*. Market delineation also identifies the most likely tenants, based on consumer profiles–i.e., features such as income, age, and lifestyle. The process of differentiating the most probable tenants from the broader population is called *market segmentation*.
3. *Demand Analysis and Forecast*
   Market demand, both existing and anticipated, is estimated by examining population and employment data derived from economic base analysis. The analyst evaluates variables shaping demand, such as population; household size, number, and growth rate; breakdown of population by renters and owner-occupants; and breakdown of households by income, age (usually associated with income and household size), and typical percentage of household income expended on rent. With this information, the analyst estimates the size of the demographic group that corresponds to the most probable tenants in terms of space requirements, available housing alternatives, and ability to pay.
4. *Competitive Supply Analysis and Forecast*
   Existing and anticipated supply is inventoried according to building category, age, size, location, and rents. Anticipated supply includes properties under construction, in planning, or proposed. Multifamily housing starts and construction activity tend to vary with interest rates.
5. *Demand and Supply Study or Equilibrium Analysis*
   The inventory of supply and estimate of demand are compared to determine whether marginal or residual demand exists or whether such demand can be forecast at some point in the future. There are two possible types of oversupply (i.e., low occupancy rates) that may occur in some markets: *technical*, when available units exceed potential

3. This procedure is explained in Stephen F. Fanning, *Market Analysis for Real Estate: Concepts and Applications in Valuation and Highest and Best Use* (Chicago: Appraisal Institute, 2005). The market analysis process is a fundamental component of highest and best use analysis. The first two steps deal with a physically possible and legally permissible use, and the remaining steps provide essential information for determining the financial feasibility of a use. This relationship is detailed in Richard Parli, "What's Financial Feasibility Got To Do With It?" *The Appraisal Journal* (October 2001): 419–423.

tenants, and *economic*, when available space is priced beyond the purchasing power of potential tenants. The latter condition typically exists at the early stages of an oversupplied market, when landlords are reluctant to acknowledge that a reduction in rental rates is necessary to meet diminished demand.

Equilibrium analysis involves not only the analysis of data but also understanding of the market. Market conditions reflect the interaction of short-term real estate cycles. These cycles are governed by credit availability, interest rate levels, and long-term or secular business cycles, which depend on broad demographic and employment trends. The analyst will also study indicators of market activity, such as the terms of available financing, number of mortgages recorded, values of multifamily sales, and range between listing and acquisition prices/rentals.

6. *Capture Analysis*
When the subject and competitive properties are highly comparable, the analyst may assume that each property will capture a proportionate or pro rata share of marginal demand. When this is not the case, the productive attributes of the subject property are ranked against those of competitive properties. The property productivity analysis performed in Step 1 is particularly useful at this stage. The ranking reveals any special advantage of the subject or comparable properties and helps in forecasting the subject's probable market share under existing conditions. Regardless of what level of market analysis is employed, capture analysis is ultimately concerned with the stabilized occupancy of the subject property.

Stabilized occupancy, or stabilized vacancy, is a property-specific concept applicable to market value considerations. Regardless of whether an appraisal assignment is focused on the fee simple or leased fee estate, a market value opinion is dependent on the determination of a property's stabilized rate. This concept applies to apartment properties even though most leases are short-term and may be subject to high turnover. Stabilized occupancy (or stabilized vacancy) is an expression of the expected performance of a property in its particular market, considering current and forecasted supply and demand and under conditions consistent with market rent. This implies that stabilized occupancy can change over time but is always linked to a market rent presumption.[4]

Unlike frictional vacancy, which affects the entire market for a particular property type, *stabilized vacancy* is property-specific and considers not only normal vacancies due to tenant turnover, but also the competitive position of the property. If frictional vacancy can be seen as the average market vacancy rate "in a given market operating in equilibrium," then it follows that there will be variations within the market.[5] In terms of market value, these variations are a function of each property's competitive position: those with the best competitive position would be expected to have a stabilized vacancy rate that is lower than the frictional vacancy rate. That is, demand for the space under such conditions would result in less-than-average vacancy. Conversely, those properties with competitive disadvantages would be expected to have a stabilized vacancy rate that is higher than the frictional rate.

The goal of capture analysis is therefore to determine what stabilized occupancy is for the subject by looking at its current and expected future competitive position. This determination is directly related to the risk inherent in ownership of the property and fundamental to a market value opinion.

Feasibility Rent

Appraisers often encounter situations where there is uncertainty about one or more of the three criteria. Judgment is the only way to determine if a property is large or complex, because *large* and *complex* are relative terms that require a comparison with other properties in the market area. The true condition of a current market, however, can be determined more objectively–through the calculation of the property's *feasibility rent*.

Feasibility rent is the rental rate necessary to justify new construction. New construction is not going to take place until feasibility rent is equal to or greater than market rent. Rents are the most time-sensitive indicator of market conditions. Market rents tend to be a leading indicator of vacancy rates since individual landlords are the first responders to changing market

4. The *market value* definition dictates that "competent management" must also be present.
5. *The Dictionary of Real Estate Appraisal*, 4th ed. (Chicago: Appraisal Institute, 2002), 121.

conditions. Therefore, if market rents are below the subject's feasibility rent, it could signal a downturn in market conditions and a Level C analysis would be warranted.

The calculation of feasibility rent is based upon the relationship of development costs and the income required to attract new construction. Since any highest and best use conclusion is premised on the recognition that the cost to assemble the property is equal to the value of the property (i.e., no depreciation or obsolescence initially exists), the following formula holds true.

$$V_o = I_o/R_o$$
$$V_o = V_L + V_{B\ (new)}$$
$$\therefore\ I_o/R_o = V_L + V_{B\ (new)}$$
$$\therefore\ I_o = (V_L + V_{B\ (new)}) \times R_o$$

Begin with the cost of development (land and improvements), including profit and entrepreneurial incentive. Multiply the cost of development by the appropriate overall rate (R_o) to arrive at the minimum net operating income (I_o) necessary to justify new construction. Add all appropriate operating expenses to arrive at the effective gross income. Adjust for vacancy and credit loss to arrive at the required gross income. Divide the gross income by the net rentable area of the property to arrive at an estimate of current feasibility rent.

Case Study: Commuter Highway Apartments

The Commuter Highway Apartments property is a 150-unit apartment complex in an established suburban location and the market *appears* to be stable. The property is large enough to require at least a Level B study. Since the project is not particularly complex, the need for a Level C study hinges on the true condition of the market, which can only be determined by calculating the property's feasibility rent. In a healthy market, feasibility rent will approximate market rent. In a stressed market, feasibility rent will vary significantly from market rent. When the latter occurs, only a Level C study can forecast the future condition of the market.

Using data that would be collected in the cost and income capitalization approaches, feasibility rent for the property as if new can be determined as shown in Table 1.

Assume that market research reveals market rent for a new property in the same market to be about $1.30 to $1.40 per square foot per month. The calculation in Table 1 indicates that feasibility rent is $1.38 per square foot. This indicates that new construction is currently financially feasible, which confirms the observed condition that the market is in balance and stable.

Table 1 Feasibility Rent for 6200 Commuter Highway (Case Study)

Cost to construct		
Building	175,000 sq. ft. × $90.00 =	$15,750,000
Land	150 units × $10,000 =	1,500,000
		$17,250,000
Appropriate capitalization rate (R_o)		9.50%
Required *NOI* (I_o)		$1,638,750
Fixed expenses		
Real estate taxes	2.56%	
Insurance	0.62	
Total fixed expenses	3.18%	
Variable expenses		
Management	4.00%	
Administrative expenses	7.72	
Utilities	8.00	
Repairs, maintenance, security	5.00	
Total variable expenses	24.72%	
Total fixed and variable expenses	27.90	
Replacement reserve	0.50	
Total expenses	28.40%	$650,007
Effective gross income		$2,288,757
Add vacancy and credit loss	5%	120,461
Gross income required to justify construction		$2,409,218
Feasibility rent - *GI* / net rentable area (145,200 sq. ft.) per month		$1.38/sq. ft./month

Since Commuter Highway Apartments is a relatively large, but not complex, project currently operating in a stable market, a Level B marketability study should produce reliable results.

The six-step process of market analysis is applied to the Commuter Highway Apartments next.

Property Productivity Analysis

Property productivity analysis is defined as an analysis of a property's capacity to deliver goods and services to meet human needs, house economic activities, and supply amenities. This section analyzes the subject property's physical, legal, and locational attributes.

Subject's Physical Attributes

The subject property is a site of approximately eight acres developed with a 28-year-old garden apartment complex known as Commuter Highway Apartments, located in Anytown, USA. The complex consists of seven, 2-story buildings with 31 one-bedroom units, 90 two-bedroom units, and 29 three-bedroom units.

The building improvements are on a concrete foundation with frame construction, shingle roofing, and siding with some decorative brickwork. Although 28 years old, the exterior has been maintained and upgraded to contemporary standards.

The common areas and unit interiors contain similar quality of construction as competitive units in the immediate market area, including painted drywall and carpeting in primary rooms and tile floors in bathrooms, kitchens, and foyers.

Project amenities include:

- On-site management
- Clubhouse/fitness center
- Swimming pool
- Tot lot
- Picnic area

Unit features include:

- Deck or patio in each unit
- Washer and dryer in each unit

It is concluded that the improvements are typical garden apartment units with amenities that are typical for the immediate area.

Subject's Legal Attributes

The subject property is zoned RM-1 and is a conforming, legal use. There are no known deed restrictions or covenants that impact the current or future legal use of the property. The property could be converted from a rental project to condominiums without requiring county approval.

Subject's Locational Attributes

Analysis of locational attributes focuses on the impact of these attributes on real estate in the same or a similar category to that of the subject property, which in this case is the apartment market. This analysis is divided into two parts. First, emphasis is placed on land-use trends surrounding the subject and the linkages between the subject and existing complementary and competitive land uses. Next, the suburban growth structure is analyzed, with particular emphasis placed on the direction of growth and pertinent factors affecting suburban growth in this area, such as public planning for growth, population trends, and an initial consideration of the competitive developments.

This analysis provides information essential for delineating the subject property's market and for identifying its potential competition. The results of this analysis advance the marketability and highest and best use analysis for the subject.

Land Use Trends and Linkages. The subject is located in the Commuter Highway corridor within a market area that runs between the New Town area to the south and the southern portion of the Old Town area to the north. Commuter Highway is just east of an interstate highway at this point and has remained a parallel, but secondary, commuter route. The area provides very good access to employment centers.

The immediate area is dominated by multifamily residential properties but includes a 20-acre parcel to the north that is zoned to permit multifamily use up to a density of 320 units. No plans were uncovered regarding the development of this site.

Retail properties are located in the Old Town area to the north and the New Town area to the south. Village Square Shopping Center, a neighborhood center with a grocery store, is located one mile north. Over 10 acres of commercial land surrounding this center remains undeveloped. Single-family attached townhouses and multifamily garden apartments extend south from the shopping center along Commuter Highway. Behind the townhouses and apartments is an area of single-family detached homes, partially completed and currently under final construction. One mile to the south is a public elementary and middle school. Further south, leading to New Town,

is undeveloped land, with portions zoned industrial; no plans for development were uncovered.

The subject area and Old Town are closely linked, both by good highway connections and by the interaction of housing, schools, and services. Anytown residents frequently drive to Old Town for school activities, shopping, churches, entertainment, and social gatherings. According to apartment managers, there is direct competition between the apartment complexes in Anytown and Old Town.

It is clear that its frontage on Commuter Highway and good linkages to complementary land uses give the subject a locational advantage.

Growth Trends. Discussions with management personnel and owners of apartment complexes in Anytown and Old Town indicate that there is a growing apartment market. This is evidenced by the recent completion of The Virginian Apartments, which has a full lease-up at the rate of 6.75 units per month. Two competitive complexes in Old Town, Hunt Country Commons and Highland Manor, have remained fully leased for several years. However, there is no known development or expansion of apartments in the Old Town area currently.

Property Productivity Analysis Conclusions

The subject location is considered ideal for apartment development within the relatively small community of Anytown. It is clear that growth in the community is the result of in-migration driven by a desire for mid-level housing at prices (including rents) that are below those available at close-in locations. This relationship is expected to continue into the foreseeable future.

Specification of the Market of Most Probable Property Users

The second section of market analysis is often referred to as *market delineation*–the process of defining the specific market and trade areas as well as the most probable users of the subject property. This is accomplished by determining where and from whom the demand is likely to come, which necessarily includes identifying the location of the subject's competition for this demand.

Delineating the Market and Trade Areas

The subject's market area is distinct from its trade area. The trade area "is the geographic area immediately surrounding the subject property in which it competes for tenants with its direct and most proximate competition."[6] In contrast, the market area "is the portion of the local economy, other than the trade area, from which the subject property can draw tenants and which contains indirect competition."[7] Often, the two areas are one and the same in that competition for tenants is distributed throughout the area from which tenants are drawn. When this is not the case, the trade area is the most important area to be delineated for inferred analysis (Levels A & B), while the market area is most important for fundamental analysis (Level C). Regardless of which area is used, it is of paramount importance that once the geography has been defined, it must be consistently applied in both the demand and supply analysis.

It is clear that a property's trade area and market area are defined by both demand and supply factors. Primary competition is located in the trade area; secondary competition is located within the greater market area. In this case, the subject's market area is defined as the area within a 10-mile radius of the subject property. The boundaries for this area were selected for the following reasons:

- The boundaries incorporate the Old Town area, which provides secondary competition with Anytown.
- Data for this area is readily available.

The subject property's trade area is defined primarily by supply factors (the primary competition). The subject's primary competition is within the Anytown community, centering around the intersection of Commuter Highway and Powell's Run Boulevard. The type and size of an apartment complex is directly related to pricing as well as its proximity to employment and services. The trade area of 6200 Commuter Highway appeals primarily to commuters who drive substantial distances, and this area has a recent history of full occupancy. Anytown has developed as a focus of apartment development within the market area.

The reasons that potential tenants might choose to live in apartments in the trade area should also be

6. Joseph Rabianski, "Apartment Market Area Delineation," *The Appraisal Journal* (Winter 2006): 33–41.
7. Ibid.

evaluated. It is not readily evident what attracts tenants to the Anytown area since it is a generally remote, subrural area that is not particularly conducive to apartment living. In response to a trade area survey, local apartment managers identified the following reasons why tenants would consider the Anytown apartment market:

- Lower prices. This is easily by far the primary reason. Indications are that rent savings of at least $100 to $200 per month are required to entice relocation to the Anytown trade area from the less remote markets.
- A 45-minute-or-less commute time to various employment centers.

These characteristics provide a first look at the types of tenants who are typical of the subject trade area.

Most Probable Users

Demand for apartment properties is typically made up of the following three demographic components:

- Young and upwardly mobile renters
- Moderate-income, permanent renters
- Empty nesters or seniors

The aging of the baby boomer generation—that segment of the population born after the Second World War and now approaching peak wage-earning capacity—will likely be the most significant component of demand over the next two decades. The 75 million baby boomers make up 25% of the overall population. As the baby boomers become empty nesters, many will opt for more manageable, amenity-outfitted apartments over single-family housing with its associated maintenance costs.

In view of their longer life expectancies, baby boomers will also begin to seek elderly or senior housing, a category that ranges from retirement communities to congregate facilities. Typically, elderly housing consists of apartment-style units in a community setting where common services such as housekeeping, meals, organized activities, transportation, security, and nursing care are often provided. Elderly housing is expected to become a growth industry over the next two decades.

The two generations that follow the baby boomers will also exert apartment demand. Generation X, known as the second baby bust generation, includes those persons born between the mid-1960s and mid-1970s. The 55 million baby busters make up nearly one-fifth of the overall U.S. population. Generation Y, known as the echo generation, numbers 72 million, and includes those born since mid-1980, when the birth rate again began to rise. Lifestyle changes account for the smaller household size of Generations X and Y—e.g., single-person households and double-income households without children. These younger and smaller households will seek moderate- and low-income housing.

Additional considerations include the fact that minority and immigrant populations continue to grow and will also fuel demand for moderate- and low-income housing. Having abandoned many of its low-income housing programs, the federal government is encouraging the private sector to meet the growing demand in this area through fiscal incentives and underwriting guarantees.

The following table shows demographic data comparing the characteristics of the current residents of the market area (10-mile radius) and the immediate trade area:[8]

Category	Trade Area	10-Mile Radius (Market Area)
Average annual household income	$65,511	$77,329
Median age	30 years	36 years
Average household size	1.99	2.92
Renter occupancy rate	39.1%	23.4%

From this comparative data, it can be seen that as the population moves closer to the subject property, the average household income and size as well as median age decrease, while the rate of renter occupancy increases. Generally, this trend is consistent with increasing demand for apartments in the immediate subject area.

The trade area survey of apartment managers reveals the following profile of typical tenants:

- 25 to 35 years old
- 50% single
- 50% with at least one child
- Incomes typically ranging from $30,000 to $40,000

These are the characteristics normally associated with the young and upwardly mobile group.

8. Demographic data on defined areas is available from various commercial providers, including STDBonline.com.

Demand Analysis and Forecast

Residential demand is driven by the need for household shelter. Current demand is often reflected by the occupancy of existing household units within the defined trade and market areas. Future demand is measured by the growth in the number of households forecast to take place within the defined market area. If necessary, total demand for housing units can be segmented to identify tenants who desire rental units in the subject's price range.

A Level B demand analysis relies upon inferred methods to forecast the need for future housing units. Inferred analysis, often referred to as *trend analysis*, is "an attempt to estimate future changes in value by investigating past market behavior."[9] In order to accomplish this, an analyst will consider trends in historical growth and construction, as well as market and subject rental and vacancy rates. The analyst presumes that the past can be relied upon as an indication of future market conditions.

If historical data is considered inadequate or unreliable, an analyst should perform a Level C analysis by supplementing the inferred analysis with *fundamental analysis*. Fundamental analysis studies the fundamental sources of demand for a particular property type and incorporates forecasts of changes in those sources to forecast demand changes for that property type. For instance, forecasting a change in the number of people and composition of households in a trade area over a future period can indicate the future demand for housing units. By segmenting this demand into type and affordability, the future demand for units in the subject property type can be forecast.[10]

In this case, we have determined that past market behavior should be sufficient to gauge the future performance of the subject property. Therefore, only inferred data will be considered.

Current Market Condition

The subject is an older, masonry garden apartment complex that competes with similar properties in the trade area. The six apartment complexes described in Table 2 are the subject's competition.

When at or below stabilized occupancy, actual trade area occupancy is considered a reliable indication of current demand. In fact, with a Level B analysis, this is the only measure of current demand available to the appraiser. In this case, frictional vacancy for the trade area is reported to be 95%. Since actual occupancy is only 94%, it is concluded that current market demand for garden-style rental units in the trade area is 1,594. If actual occupancy in the trade area produced a vacancy rate less than the frictional rate, a Level C analysis would be necessary to determine the level of pent-up (unsatisfied) demand.

Future demand can only be estimated based on existing and historical market conditions.

Growth and Construction Trends

The breakdown of historical and current households in the trade area is presented in the following table:

Year	Households	Compounded Annual Growth Rate	Average Absolute Growth
10 yrs. ago	7,747		
5 yrs. ago	8,775	+2.5%	206/yr.
Current	9,908	+2.5%	227/yr.

Of the 2,161 new households located in the trade area over the past 10 years, county records indicate

Table 2 Market Condition, Commuter Highway Apartments

Name	Age (Yrs.)	Number of Units	Occupied Units	Current Occupancy
Commuter Hwy. (subject)	28	150	143	95%
Chesapeake	30	170	161	95%
Shenandoah Park	25	170	156	92%
Longview	12	374	355	95%
Bayvue	8	584	550	94%
The Virginian	2	41	41	100%
Linden Park	5	198	188	96%
Total/Averages	16	1,687	1,594	94%

9. *Market Analysis for Real Estate,* 18.
10. For an in-depth description of a rental apartment Level C market analysis, see *Market Analysis for Real Estate*.

that 903 were new rental units. These figures indicate that 42% of new housing has been multifamily rental, which confirms that recent residential development in the trade area has been consistent with the established character of the community (reported to be 39% rental in the previous section).

Figure 2 details the multifamily residential building activity over the past 10 years. The 80 units developed three years ago was an age-restricted (active adult) project that does not compete directly with the subject.

Market and Subject Occupancy Rates

The occupancy rate for the trade area over the previous 10 years is shown in Figure 3.

The precipitous drop in market occupancy eight years ago—as well as the drop in the subject's occupancy—is credited to the opening of the 584-unit Bayvue Apartments. A smaller drop occurred five years ago with the opening of the 198-unit Linden Park apartments. As this graph shows, the subject's occupancy has generally out-performed the market: the market is currently at 94% occupancy while the subject has remained at or near 95% over the last four years. The trade area occupancy also recovered and has been at stabilized occupancy for the last three years.

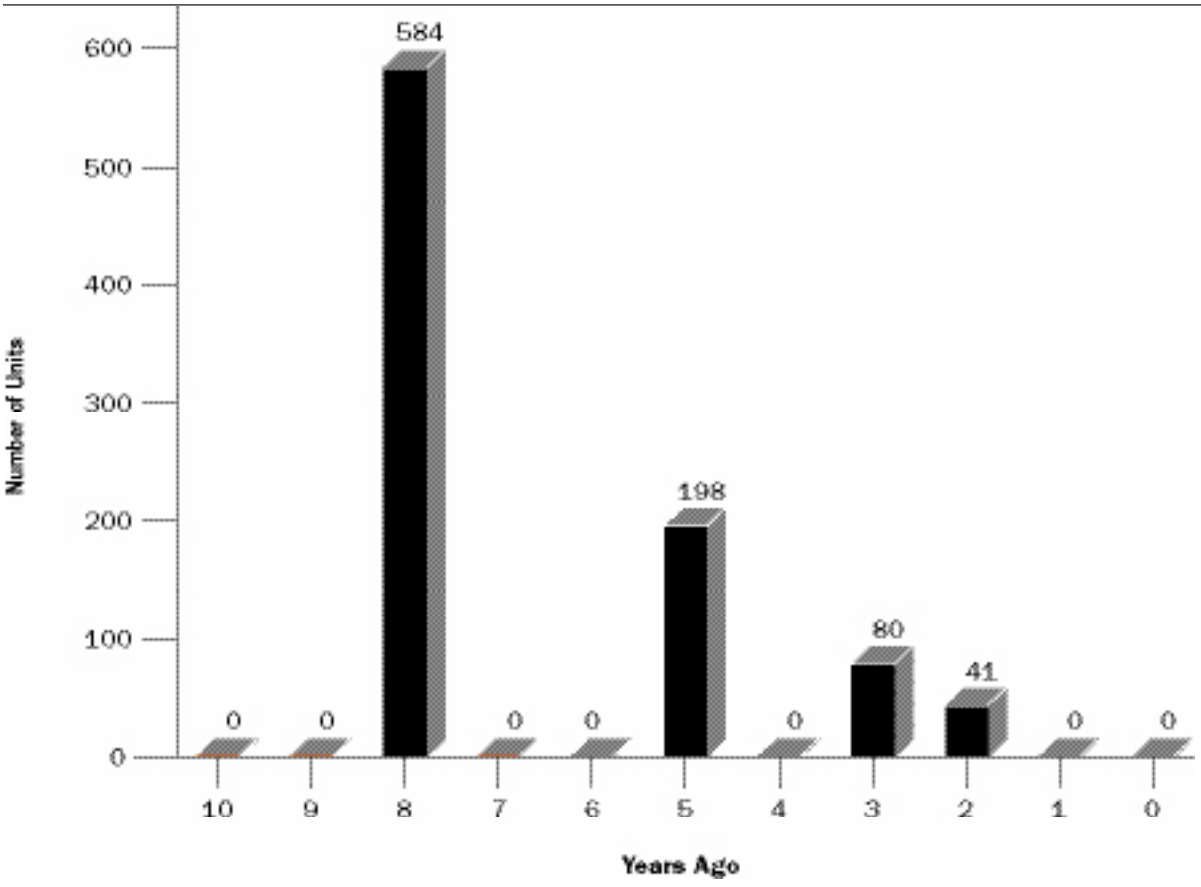
Market and Subject Rental Rates

The current and historical rental rates per square foot for the subject and its primary competition are shown in Table 3.

Over the previous four years, the trade area has experienced about a 12% average appreciation in rents, or about 3% per year. These increases correspond to the lack of excess space beginning two years ago and reflect an increase in real demand unaffected by special landlord concessions.

The market growth rates for the last two years represent increases under conditions of nearly stabilized occupancy. The subject property's rental growth rate of 5% per year over the past two years was recorded under stabilized occupancy conditions.

Figure 2 Multifamily Units Added in Trade Area



Demand Conclusions

The demand experienced in the trade area has been inconsistent and shows no clear pattern over the past 10 years. The average absorption rate has been about 90 units per year. This pace is expected to continue over the next five years.

Current and future demand is estimated as follows:

	Current	+1 Yr.	+2 Yrs.	+3 Yrs.	+4 Yrs.	+5 Yrs.
Current demand	1,594					
Additional demand		90	90	90	90	90
Total demand	1,594	1,684	1,774	1,864	1,954	2,044

Competitive Supply Analysis and Forecast

Supply analysis is concerned with two things: the current and future competitive supply in the trade area and a qualitative ranking of this supply.

Inventory and Forecast Supply

We have previously determined that there are currently 1,687 garden apartment units within the defined trade area that compete with the subject. The survey indicates that these units (including the subject property) have an average occupancy rate of 94%.

Investigation at the county planning office uncovered only one project submitted and nearing ap-

Figure 3 Multifamily Occupancy

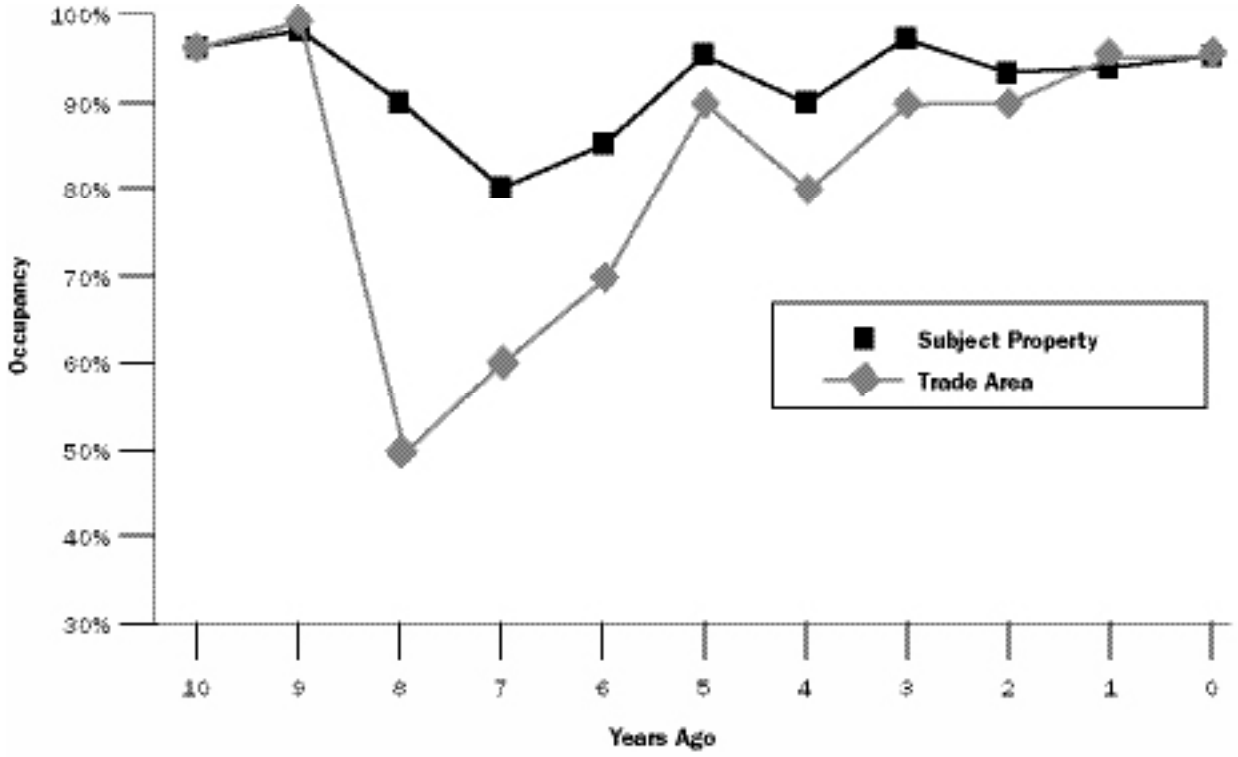


Table 3 Rental Rates per Square Foot

Name	Current	Total Increase	Two Yrs. Ago	Total Increase	Four Yrs. Ago
Case Study (subject)	$1.26	10%	$1.15	3%	$1.11
Chesapeake	$1.25	8%	$1.16	2%	$1.13
Shenandoah Park	$1.30	8%	$1.20	2%	$1.18
Longview	$1.23	7%	$1.15	2%	$1.13
Bayvue	$1.15	9%	$1.06	3%	$1.02
The Virginian	$1.26	9%	$1.16	3%	$1.12
Linden Park	$1.30	10%	$1.18	4%	$1.14
Average	$1.25	9%	$1.15	3%	$1.12

proval. This 150-unit project is likely to break ground in the near future and come on-line in two years.

The appraiser's survey of vacant and available sites suitable for garden-style multifamily units that would compete with the subject uncovered 20 acres in two 10-acre parcels. At 16 units per acre, each could support about 160 units. It is likely that one of these properties will be developed in the next five years.

Therefore, current and future supply is estimated as follows:

	Current	+1 Yr.	+2 Yrs.	+3 Yrs.	+4 Yrs.	+5 Yrs.
Current supply	1,687					
Additional supply			150		160	
Total supply	1,687	1,687	1,837	1,837	1,997	1,997

Ranking of Competitive Supply

In Table 4 the subject and competition are rated qualitatively on a scale of 1 (worst) to 5 (best) for location, age/condition, and amenities.

The amenities category includes consideration of unit and project characteristics. There is certainly some overlap with age/condition, which could dictate the character of the unit amenities as well as the project amenities. For example, older units may not have many of the amenities expected in the modern market (individual HVAC, private washer/dryer, high tech connections) and an older project may have amenities that are not currently in high demand (tennis courts, basketball courts). The location rating includes consideration of surrounding influences and the accessibility of complementary services including shopping, restaurants, and employment centers.

The location rating shows the subject to be near the middle of the range and the best of the older units due to its superior location. Thus, of the older units, the subject should be the best able to compete in the future market.

Demand and Supply Interaction

Often referred to as *equilibrium analysis*, the fifth step in the six-step process is to compare the current and forecasted demand with current and forecasted competitive supply. The goal is to understand the economic forces expected to affect the trade area over the study period. This relationship is summarized in Table 5.

The analysis indicates a slight excess of supply in the current market, but positive residual demand at the end of Year 1 and continuing demand on through the five-year forecast.

Capture Analysis

The purpose of a marketability study is to determine current and future market conditions that will impact the income-earning potential of the subject property. This marketability study has determined that the current market for garden apartment units in the trade area is 94% occupied. Occupancy is forecast to reach 95% by the end of the first year and remain at this level over the five-year forecast period. Stabilized occupancy for the Commuter Highway Apartments is therefore concluded to be 95%.

The trade area has seen increasing rents over the past four years at an average rate of 3% per year, and this should continue over the five-year forecast. The subject property is one of the older projects in the trade area but has the advantage of a superior location. Rental rates have increased about 5% per year over the past two years, but only about 3% per year over the four-year study period. The evidence indicates that the subject should continue to outperform the existing competition in the trade area

Table 4 Ranking of Competitive Supply

Name	Age (Yrs.)	# of Units	Avg. Rent/ Sq. Ft.	Current Occup.	Loc. Rating	Amenities Rating	Age/Cond. Rating	Total Score
Linden Park	5	198	$0.99	96%	5	4	4	13
Longview	12	374	$0.94	95%	4	4	4	12
Bayvue	8	584	$0.85	94%	3	5	4	12
The Virginian	2	41	$0.96	100%	3	3	5	11
Case Study (subject)	28	150	$0.96	95%	4	3	3	10
Shenandoah Park	25	170	$0.99	92%	3	2	3	8
Chesapeake	30	170	$0.95	95%	3	3	2	8

Table 5 Demand and Supply

	Current	+1 Year	+2 Years	+3 Years	+4 Years	+5 Years
Current demand in units	1,594					
Additional units demanded		90	90	90	90	90
Total demand	1,594	1,684	1,774	1,864	1,954	2,044
Frictional vacancy @ 5%	84	89	93	98	103	108
Supportable demand	1,678	1,773	1,867	1,962	2,057	2,152
Supply in units	1,687	1,687	1,687	1,837	1,837	1,997
Additional units supplied			150		160	
Total supply	1,687	1,687	1,837	1,837	1,997	1,997

but probably not at the recent level. A 4% growth rate for the Commuter Highway Apartments is inferred from the data.

Conclusion

The market analysis process is defined by the six-step process, which lays out a road map to guide the analysis. Regardless of which level of marketability study is pursued, the investigation and analysis associated with the first two and last three steps should vary only with the depth of research and the intensity of analysis. Step 3 varies because fundamental data is analyzed in Level C analysis only, while inferred data is relied on in Levels A and B analyses.

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