Market Analysis for Apartment Properties

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Abstract

Market analysis is arguably the most important part of the valuation process. Without an accurate and comprehensive market analysis, a property's highest and best use cannot be determined reliably and the accuracy of the three approaches will be seriously diminished. This article discusses and demonstrates contemporary market analysis applications for apartment properties, including the impact of equilibrium vacancy on the movement of market rents. Although the focus is on apartments, the methodology is applicable to all real estate.

Markets and Market Analysis

The term *market analysis* refers to the study of the supply of and demand for a specific type of property in a specific market area. 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. A *market* is defined as "a gathering of people for the buying and selling of things; by extension, the people gathered for this purpose."[1] Real estate markets are divided into two distinct categories: the capital market and the fundamental market, as shown in Figure 6.1.

The capital market is the market in which the value of a property is measured against the supply of and demand for competing, similar properties. This market consists of buyers and sellers, both involved in a real estate transaction and both acting as market participants. Market value looks primarily to the capital market for evidence of value as revealed in transactions. Activity in the capital market is evidence of the vitality of the fundamental market.

The fundamental market is the market of users of real estate: the owners, the tenants, and the customers, all also acting as market participants. These are the users of real estate who make real estate valuable by producing or supporting demand (occupancy) for its space. Therefore, market analysis is primarily concerned with the fundamental market: the tangible expression of the needs and desires of users. For apartment properties, the users are the tenants, and the market analysis is primarily concerned with analyzing

Figure 6.1 Two Types of Real Estate Markets
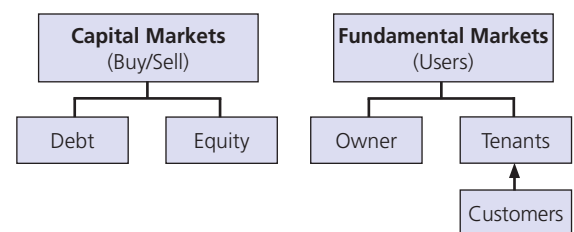
the competitive position of apartment properties to current and potential tenants. The results of this analysis will be applied in analyzing the capital market, all of which is necessary to arrive at a supportable opinion of value.

The Need for Market Analysis
Real estate activity differs in two respects from the pricing and marketing of any other product. First, real estate parcels are unique, whereas most other items, such as personal property, are sold as though they are identical (like shoes of the same

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1.   *The Dictionary of Real Estate Appraisal*, 7th ed. (Chicago: Appraisal Institute, 2022), s.v. "market."

style and brand) or sold as identical (like shares of common stock in the same corporation). Real estate, on the other hand, consists entirely of marketable items that differ from one another. Although there are garden apartments in identical buildings with highly similar locations, they have different maintenance requirements. Moreover, most apartments are not found in identical buildings. Even condominium apartments with the same floor plan on the same floor of the same new building have different vistas and orientations to sunlight. And value differences are often ascribed to different floors.

Second, real estate parcels are immobile, whereas all items of, say, personal property are not stationary. Only real estate is sold with acknowledged variations in description and quality; only real estate is not gathered together at the seller's market location or delivered to another convenient location where buyers can inspect the property before purchase. Only real estate cannot be transported to a different, more advantageous market. In short, real estate is a unique product because each property is different and each property is stationary. Because of this uniqueness, analysis of the local market in the development of an appraisal is critical.

In the context of apartment property appraisals, market analysis examines the factors that lead households to live downtown or in a suburb, to rent or to buy either flats or duplexes, to select small or large buildings, and to rent within certain price parameters.

An appraiser's analysis of the apartment market tends to be an ongoing activity that is general rather than specific to a given assignment. The analysis that is property-specific is known as a *marketability study*. An apartment appraiser's marketability study includes familiarization with reported inventories of similar apartment properties categorized by physical differences such as size and building age, price or rent differences, or location differences. A penetrating marketability study may be formally reported (either as part of or as independent from a market value appraisal) in developing opinions of absorption and feasibility. In appraisal practice, the appraiser's reported conclusions of absorption and feasibility are site-specific but are not value-related analyses.

The Need for Apartments

Real estate exists to house economic activities, supply services, and provide amenities to meet human needs. This is no less the case for apartment real estate, a type of amenity. The need for this type of amenity in a market area is related to economic and demographic characteristics of that market area. The economic and demographic characteristics that drive the need for apartment properties are referred to as the fundamental force of demand—the actual generator of demand. The generator of demand for apartment properties is *population*.

Apartments are a subset of housing units, which are what is consumed by households. As shown in Figure 6.2, as the population changes in a market area, the number of needed households changes, leading to a change in demand for housing units. In most cases, a certain portion of the change in demand for housing units includes a change in demand for apartment units. Thus, the need for apartments in a market area is directly tied to the population of that market area and the demand within that population for apartment living.

Figure 6.2 Changes in Demand

A Change in Population

Leads to ⟶

A Change in Households

Which Leads to ⟶

A Change in Demand for Housing Units

The Goal of Market Analysis

Market analysis is ultimately concerned with determining whether marginal or residual demand exists for a given property use and, if so, the extent of that demand. 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 conclusion of the property's highest and best use. This conclusion will be as specific as the market suggests. For example, market analysis will reveal when development should take place, the density of the development, and whether a proposed multifamily development should be owner-occupied condominiums or renter-occupied apartment units.

An appraiser's analysis of the apartment market tends to be an ongoing activity that is general rather than specific to a given assignment. An apartment appraiser's marketability study includes

becoming familiar with reported inventories of similar apartment properties categorized by physical differences such as size and building age, price or rent differences, or location differences. Ultimately, market analysis is concerned with predicting the future performance of a specific property. It is the result of a disciplined process that is an economic study of the market over the long term; it is not a valuation technique but rather a process that develops the components to first apply highest and best use analysis and then reliably develop the valuation.

Market analysis is essential to the valuation of both existing and proposed apartment properties. Existing properties normally have an operating history—that is, 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. For a proposed property on a site that is either vacant or under another use, however, there is no history of operations. Therefore, there is greater uncertainty and, consequently, greater risk. In that case, market analysis becomes more critical to an accurate valuation.

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 affecting a particular property type. Known as a *market study*, this analysis looks at broad supply and demand conditions affecting the property type. If reliable, credible results for a specific property can be drawn from a market study, no additional research need be done. When a market study does not produce reliable results, the analysis must go beyond a market study to what is referred to as a *marketability study*. 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 market that surrounds and has an effect on a particular property. Whichever is devel-oped, both a market study and a marketability study must produce a prediction of a specific property's future performance because market value is based on the present worth of future benefits.

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* (project) future supply and demand conditions. Levels C and D analyze current and historical market conditions, but in addition they 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.[2]

The level of market analysis required depends on several key considerations, but mainly the size and complexity of the property as well as the size and condition of the market.[3] Ultimately, however, the choice is a function of reliability; an appraiser is only required to do what is necessary to produce reliable results. A Level A study is technically nothing more than a market study. It requires the least amount of work because it includes market conditions for a *property type* only and relies upon generally available published information. The strength of the market is implied through *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 or non-complex or if it is in an unstable market, Level A is inadequate. The appraiser must supplement the analysis by going to at least a Level B study in order to produce reliable results.

A Level B study—the lowest level of a 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, comparable properties, and the subject—are relied upon to indicate the subject property's

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2. Level D studies are excluded from further consideration here because they incorporate greater use of personal surveys and statistical analysis than is typically necessary with apartment property valuation.

3. 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.

future performance. A Level B analysis is the highest marketability level that relies strictly on current and historical information. This information is used to infer that future market conditions will replicate past market conditions, so it is necessary not only for the market to be stable currently but also for the market to be expected to be stable in the future.
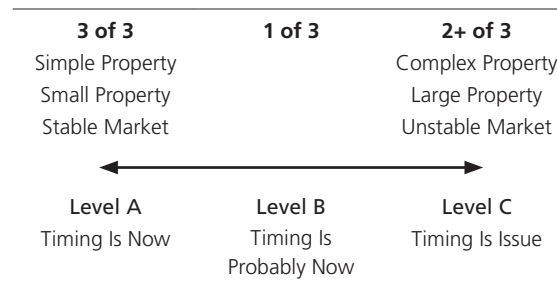
If a property fails to meet at least two of the three characteristics listed above (small, noncomplex property in a stable market), a Level B marketability study is probably inadequate, and the appraiser would need to further supplement the analysis with a Level C marketability study. For instance, a 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 because the property is neither small nor simple and the market is not stable. A Level B marketability study could not produce reliable results under those conditions.

A Level C analysis considers current and historic market conditions, but in addition it includes fundamental analysis to *forecast* subject-specific supply, demand, absorption, and capture over a specified period. Future demand and absorption are forecast on the basis of projections of the growth of population, income, and employment, which are 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 6.3. For a Level A study to be appropriate, the property must be relatively small with few tenants (or owner-occupied), and the market must be stable and expected to remain that way by most market participants. For example, assuming a stable market, a market analysis of the 1930 Curtis Street property would likely conform to the Level A requirements, and a market analysis of the Commuter Highway Apart-

ments would qualify for at least a Level B study. Conversely, a Level C analysis is appropriate when the inverse is true for at least two of the factors. When only one of the inverse factors is present, a Level B study may produce reliable results.

Figure 6.3 Market Analysis Reliability Continuum

3 of 3	1 of 3	2+ of 3
Simple Property		Complex Property
Small Property		Large Property
Stable Market		Unstable Market

Level A	Level B	Level C
Timing Is Now	Timing Is Probably Now	Timing Is Issue

Ultimately, judgment is the only way to resolve the large, complex market stability conditions. *Large* and *complex* are relative terms that require comparison with other properties in the market area. Market stability may be evident through observation. Choosing the right level of marketability study is as much about the future as it is about the present. After all, the appraiser is expected to know the current market condition, and market analysis is expected to reveal future conditions. Whichever level can reliably do this is the correct level.

The Market Analysis Process for Apartment Valuation

Regardless of whether a Level B or C marketability study is appropriate, the market analysis must proceed through six basic steps:[4]

1. Property productivity analysis
2. Market delineation
3. Demand analysis and projection/forecast
4. Competitive supply analysis and projection/forecast
5. Demand and supply study or equilibrium analysis
6. Capture analysis

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4. This procedure is explained in Stephen Fanning, *Market Analysis for Real Estate*, 2nd ed. (Chicago: Appraisal Institute, 2014). The market analysis process is a fundamental component of highest and best use analysis. The first of the steps described here deals 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.

Step 1. Property Productivity Analysis

The appraiser 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 appraiser to target potential users or the most likely market segment for the property.

Step 2. Market Delineation

In the second step of market analysis, *market delineation* identifies the market area—that is, 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 (studio/efficiency 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*.

Market delineation pinpoints the precise market segment to which the property will appeal by establishing the spatial dimensions and behavioral components of market demand and supply. The market area is the area where current and future household growth is measured (and compared to current and future supply). It focuses on a property's connection to:

- Major employment centers
- Transportation corridors
- Desirable locational amenities

Which of these three items will be most influential in determining an apartment property's market area is dependent on the location and the typical tenant profile. For example, the most important consideration for a building in an urban location that appeals to young singles and couples would be proximity to an employment center; the most important consideration for a building in a suburban location that appeals to all age groups would be proximity to transportation corridors that provide access to employment centers; and proximity to a desirable amenity might be the most important consideration for an age-restricted apartment building in any type of location.

Having determined the dominant influence on a property's market area, the next step is to determine how this market area relates to the entire community. Issues that should be considered include

- The direction and pace of residential growth
- Socioeconomic composition
- Political boundaries
- Physical boundaries

It should be obvious that being located in the direction of residential growth is preferable to not being located in the direction of residential growth. However, growth direction can change over time, possibly due to a change in support facilities (such as the arrival or departure of a major grocery store), so the attractiveness of the general area should be weighed.

The socioeconomic composition of the area should be focused on the average household income. This information can be used to segment demand, as is necessary to applying Step 3.

An apartment market area has boundaries that may be influenced by the presence of political boundaries. For example, a transportation corridor may form the boundary between two counties, one of which has rent control laws while the other has significantly higher real estate taxes. It would be unlikely that both counties should be in the same market area.

Physical boundaries, including roads, rivers, and mountains, can strongly influence an apartment's market area.

Ultimately, it is the tenant profile that strongly influences an apartment property's market area. Real estate agents and property managers classify tenants under two categories. Tenants by choice are those who choose to live in rental units; tenants by circumstance are those who must seek rental accommodations either because their lives are in some degree of flux or they cannot afford to purchase a permanent residence. Tenants by choice usually sign a formal lease, occupy their unit for an extended period, and cause fewer problems for the management. Tenants by choice are mostly career-oriented persons (singles or couples), empty nesters (older couples whose children are grown), and retired persons or senior citizens. Tenants by circumstance are more transitory, have less commitment to maintaining their apartments, and are less likely to invest effort or money on creating a formal, homelike environment.

Tenants by circumstance include out-of-town students, singles who have recently entered the job market, and families with young children. Whereas families with young children tend to be less mobile, students generally lease for short tenancies. Singles lacking job security may vacate on short notice, and students and singles often give rise to collection losses.

What is clear is that tenants by choice are preferred since they have a greater commitment to the real estate. It can be concluded that the greater the occupancy of tenants by circumstance, the greater the risk and expense to ownership.

Step 3. Demand Analysis and Projection/Forecast

Market demand for apartment units in a market area is a function of the households in that market area and their preference for apartment living. Predictions of future need are based on the current and recent past occupancy (i.e., demand) of apartment units in the market area. Current occupancy is generally recognized as an expression of current demand. Coupling this with historical occupancy should produce a reliable relationship between households and demand for apartment occupancy. For example, current and historical household change can be used to predict future household change. Likewise, current and historical apartment occupancy can be used to predict future occupancy and its relationship to future households. For instance, if current and historical data indicates that apartment occupancy represents 40% of households, it is reasonable to expect that future households will also be 40% apartments. This application of extrapolation to trend analysis can be performed (if necessary) for such factors as apartment building type, including affordability, and the characteristics of their occupants. By so doing, the predictions of future demand can be refined and adjusted to apply to not just rental apartments in general but to match the subject property type.

Step 4. Competitive Supply Analysis and Projection/Forecast

Existing and anticipated supply is inventoried according to building category, age, size, location, and rents. Anticipated supply includes properties that are under construction, in planning, or proposed. Trend analysis is not typically used here since current and past construction may not be indicative of future construction. Future construction estimates should be based on what is under construction and approved and/or proposed projects. Multifamily housing starts and construction activity tend to vary with interest rates.

Step 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 may be an oversupply (i.e., low occupancy) of apartment space in some markets. The two types of oversupply are *technical*, which is when available units exceed potential tenants, and *economic*, which is when available space is priced beyond the affordability of potential tenants. The latter condition exists typically 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 an understanding of the market. Market conditions reflect the interaction of short-term real estate cycles, which are governed by the availability of credit and the level of interest rates, and long-term or secular business cycles, which depend on broad demographic and employment trends. The appraiser also studies 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.

The identification of equilibrium vacancy is a product of market equilibrium analysis. That is, there is a level of vacancy in a market that will result in no upward or downward pressure on rents. Such a vacancy rate for a market is referred to as *equilibrium vacancy*. When a market is in such condition, increasing occupancy puts upward pressure on rents, and decreasing occupancy puts downward pressure on rents. Knowing the equilibrium vacancy for a market will give insight as to when rents will change. For example, without the market vacancy being above the equilibrium vacancy rate, there should be no upward pressure on rents, and consequently no increase in market rent. Conversely, upward pressure on rents should not be experienced until market vacancy is below equilibrium vacancy.

Step 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 total or 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 and future conditions. Regardless of what level of market analysis is employed, capture analysis is ultimately concerned with the future performance of the subject property.

Case Study: Commuter Highway Apartments

To demonstrate the market analysis process, consider a hypothetical property named Commuter Highway Apartments. Commuter Highway Apartments is a complex of 150 housing units in seven garden apartment buildings on a rectangular site of approximately eight acres. The property has received adequate maintenance and is in average physical condition for its 28-year age. The gross building area is 152,700 square feet; the rentable area is 142,300 square feet, with an average room size of 238 square feet for the 598 apartment rooms. The location is 25 miles south of Major City in Beautiful County. Since the 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 purpose of a marketability study is not just to confirm current market conditions but to predict future market conditions (revealed in Step 5) and the subject property's future performance within that market (determined in Step 6). With these goals in mind, we will proceed through the traditional six-step process of market analysis for the Commuter Highway Apartments property.

Step 1. 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. In this first step of the market analysis process, the appraiser analyzes the subject property's physical, legal, and locational attributes, and notes the following information.

Subject's Physical Attributes

The subject property is an ±8-acre site developed with a 28-year-old garden apartment complex known as Commuter Highway Apartments, located in Anytown, USA. The complex consists of 150 units in 7 two-story buildings, with 31 one-bedroom units, 90 two-bedroom units, and 29 three-bedroom units.

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

The building common areas and unit interiors contain a similar quality of construction as competitive units in the immediate market area, including painted drywall and carpet 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 typical amenities for the market 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 condominium use without requiring county approval.

Subject's Locational Attributes

The analysis of locational attributes focuses on the impact of these attributes on real estate in the same category as (or similar to) 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 to delineating the market for the subject property and to 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 generally between the New Town area to the south and the southern portion of the Old Town area to the north. The 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 but includes a 20-acre parcel to the north that is zoned to permit multifamily use to a density of 320 units. No plans were uncovered regarding the development of this site.

Retail is 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, and over 10 acres of commercial land remains undeveloped surrounding this center. Single-unit 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-unit 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 a good highway connection and by the interaction of housing, schools, and ser-

vices. 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 the subject has a locational advantage due to its frontage on Commuter Highway and good linkages to complementary land uses.

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 and its 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 current development or expansion of apartments in the Old Town area.

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 of the community is from in-migration that is 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.

Step 2. Market Delineation

The second step of market analysis is often referred to as *market area delineation*, which is "the process of identifying the geographic area where a majority of competition is located and from which a majority of demand is drawn."[5] This is done by determining where and from whom the demand is likely to come and 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* (also referred to as the *competitive market area*) is "the geographic area immediately surrounding the subject prop-

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5. *The Dictionary of Real Estate Appraisal*, 7th ed., s.v. "market area delineation."

erty 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 in 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 delineation for inferred analysis (Levels A and 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 is 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 its proximity to employment and services, and to pricing. In the case of 6200 Commuter Highway, the trade area appeals primarily to commuters who drive substantial distances and 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 evaluated. It is not readily evident what attracts tenants to the Anytown area since it is a generally remote and sub-rural area and 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, by far, the primary reason. Indications are that at least a $100–$200 per month rent savings is required to entice relocation to the Anytown trade area from the less remote markets.
- Location within a 45-minute or less commute 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 Generation X—that segment of the population born after the Baby Boomers and now approaching peak wage-earning capacity—will likely be the most significant component of demand over the next two decades. Numbering 66 million, Gen Xers make up 20% of the overall population. As the Gen Xers become empty nesters, many will opt for more manageable, amenity-outfitted apartments over single-unit housing with its associated maintenance costs. In view of their longer life expectancies, Gen Xers will also begin to seek senior housing, a category that ranges from retirement communities to congregate facilities.

Typically, senior 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. Senior housing is expected to become a growth industry over the next two decades.

The generation that precedes the Gen Xers (the Baby Boomers) and the generation that follows

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

7. Rabianski, "Apartment Market Area Delineation."

the Gen Xers (the Millennials) will also exert apartment demand. Baby Boomers are well into retirement and the benefits of being empty nesters. Millennials include those persons born between 1980 and the mid-1990s. Numbering 72 million, Millennials make up over one-fifth of the overall population. Lifestyle changes account for the smaller household size of Gen Xers and Millennials, which consist of 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. These segments of the population 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 growing demand in this area through fiscal incentives and underwriting guarantees. A review of the demographic data available (shown in Table 6.1) shows the characteristics of the current residents in the market area (10-mile radius) as compared to the immediate trade area.[8]

Table 6.1 Demographic Data

Category	Trade Area	10-Mile Radius (Market Area)
Average 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%

This comparative data shows that as the population moves closer to the subject property, the average household income declines, the median age decreases, the average household size decreases, and the rate of renter occupancy increases. Generally, this trend is consistent with increasing demand for apartments in the immediate subject area.

In the trade area survey of apartment managers, a profile of the typical tenants emerged:

- 25 to 35 years old
- 50% single
- 50% have at least one child
- Tenant annual incomes typically range from $50,000 to $60,000

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

Step 3. 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 that is forecast to take place within the defined market area. Demand for apartment housing units can be segmented to identify those who desire rental units in the subject's affordability range.

A Level B demand analysis relies upon inferred methods to predict 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 considers historical growth and construction trends as well as trends in market and subject rental and vacancy rates. The premise is that the past can be relied upon as an indication of future market conditions.

If historical data is considered inadequate or unreliable, an appraiser should perform a Level C analysis by supplementing the inferred analysis with *fundamental analysis*. Fundamental analysis looks to outside, third-party sources to predict demand for a particular property type and incorporates their forecasts of changes in demand for that property type. These outside sources could be commercial demographers, noncommercial demographers, or government demographic sources. 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 and current market conditions should be sufficient in gauging the future performance of the subject property. Therefore, only inferred data will be considered.

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8. Demographic data on defined areas is available from various commercial providers.

9. *Market Analysis for Real Estate*, 2nd ed., 19.

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

Table 6.2 Competitive Properties

Name	Age (years)	Number of Units	Occupied Units	Current Occupancy
Commuter Highway (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%

Current Market Conditions

The subject is an older, masonry, garden apartment complex and it competes with similar properties within the trade area. The six apartment complexes listed in Table 6.2 are the subject's competition.

When at or below stabilized occupancy,[11] 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 5%, and equilibrium vacancy is estimated at 6%. Since the actual vacancy is 6%, it is concluded that current market demand for garden-style rental units in the trade area is 1,594.[12] With a Level B analysis, future demand can only be estimated based upon existing and historical market conditions.

Historical Growth and Construction Trends

The breakdown of historical and current households for the trade area is presented in Table 6.3.

Of the 2,161 new households located in the trade area over the past 10 years, county records indicate that 903 were new rental units. These figures indicate that 42% of new housing has been

Table 6.3 Household Trends

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

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 6.4 details the multifamily residential building activity over the past 10 years and shows an average growth of about 91 multifamily units per year.

The 80 units developed three years ago were an age-restricted (active adult) project that does not compete directly with the subject. Adjusting for this indicates a growth of about 87 apartment units per year.

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11. In this case, *stabilized occupancy* is "the occupancy of a property that would be expected at a particular point in time, considering its relative competitive strength and supply and demand conditions at the time, and presuming it is priced at market rent and has had reasonable market exposure. A property is at stabilized occupancy when it is capturing its appropriate share of market demand." *The Dictionary of Real Estate Appraisal*, 7th ed., s.v. "stabilized occupancy."

12. If actual occupancy in a trade area produced a vacancy rate significantly more or less than the frictional rate, a Level C analysis would be necessary to determine the level of pent-up (unsatisfied) demand or excess supply.

Figure 6.4 Multifamily Units Added in Trade Area
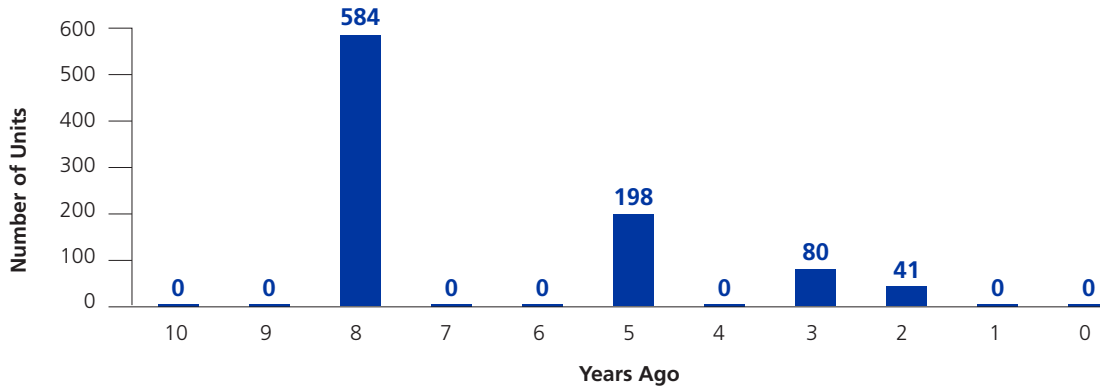
Figure 6.5 Trade Area Multifamily Occupancy
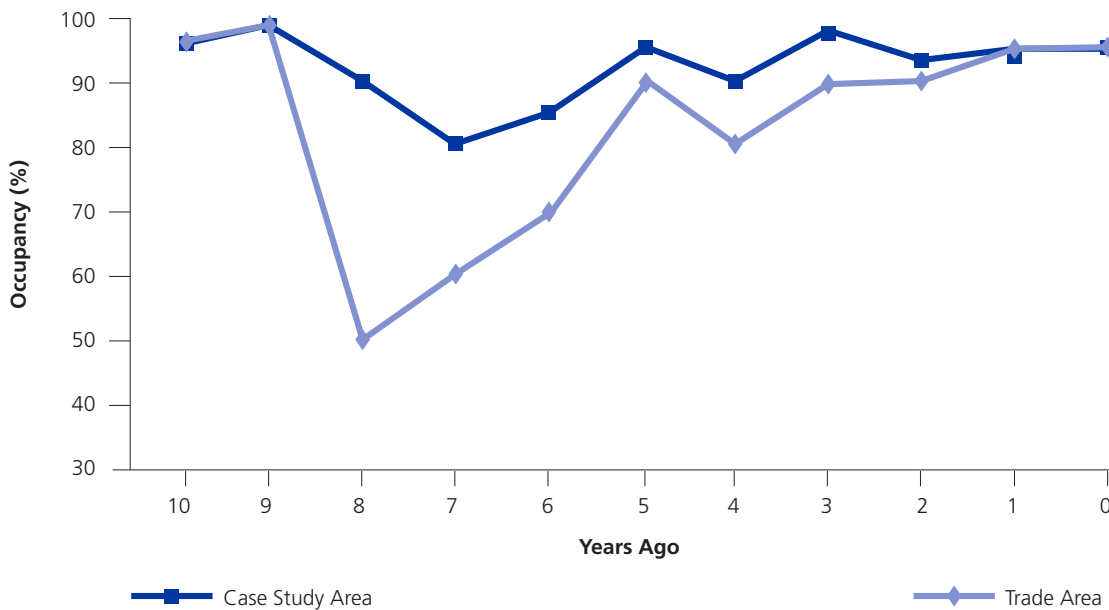
Historical Market and Subject Occupancy Rates

The occupancy rate for the trade area over the previous 10 years is shown in Figure 6.5.

The precipitous drop eight years ago in market occupancy, as well as the subject's occupancy, is credited with the opening of the 584-unit Bayvue Apartments. A second, lesser drop occurred five years ago with the opening of the 198-unit Linden Park apartments. As Figure 6.5 shows, the subject's occupancy has generally outperformed the market; the market is currently at 94% while the subject has remained at or near 95% occupancy over the last four years. The trade area occupancy also recovered and has been at stabilized occupancy over 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 6.4.

Over the previous four years, the trade area has

Table 6.4 Rental Rates

Name	Current	Total Increase	Two Years Ago	Total Increase	Four Years Ago
Commuter Highway (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

Table 6.5 Demand Trends

	Current	+1 Year	+2 Years	+3 Years	+4 Years	+5 Years
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

experienced about a 12% average appreciation in rents, or a rate of 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 rate from the last two years represents increases under near stabilized occupancy conditions. The subject property's rental growth rate over the past two years of 5% per year was recorded under stabilized occupancy conditions.

Demand Conclusions

The demand experienced in the trade area has been inconsistent with evidence of no clear pattern over the past 10 years. The average historical absorption pace has been about 90 units per year. This pace is expected to continue over the next five years. Therefore, current and future demand is concluded as shown in Table 6.5.

Step 4. Competitive Supply Analysis

Supply analysis is concerned with (1) the current and future competitive supply in the trade area and (2) a qualitative ranking of this supply.

Inventory and Predicted 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 with the county planner uncovered only one project submitted and nearing approval. This 150-unit project is likely to break ground in the near future and come online in two years.

The appraiser's survey of the vacant and available sites suitable for the development of 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 concluded as shown in Table 6.6.

Note that 62 units are expected to be built per year over the next five years. This compares favorably with the 64 units added per year over the previous five years.

Table 6.6 Supply Trends

	Current	+1 Year	+2 Years	+3 Years	+4 Years	+5 Years
Current supply	1,687					
Additional supply			150		160	
Total supply	1,687	1,687	1,837	1,837	1,997	1,997

Table 6.7 Ranking

Name	Age (Years)	No. of Units	Avg. Rent per Sq. Ft.	Current Occupancy	Location 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
Commuter Highway (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

Ranking of Competitive Supply

In Table 6.7, 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 characteristics 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), while the project may have amenities that are not currently in high demand (tennis courts, basketball courts). The location rating includes consideration of surrounding influences and accessibility of complementary services including shopping, restaurants, and employment centers.

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

Step 5. Demand and Supply Interaction

Often referred to as *equilibrium analysis*, the fifth step in the six-step market analysis process is to compare the current and forecasted demand with current and projected/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 6.8.

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

Step 6. Capture Analysis

The purpose of a marketability study is to predict the future performance of the subject property—that is, to predict how much of the residual or total demand the subject should capture. 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 horizon. 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

Table 6.8 Equilibrium Analysis

	Current	+1 Year	+2 Years	+3 Years	+4 Years	+5 Years
Current demand (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 (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
Residual demand (units)	**(9)**	**86**	**30**	**125**	**60**	**155**

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 by about 5% per year over the past two years but by 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 but probably not at the most recent level. A 4% growth rate for the Commuter Highway Apartments is inferred from the data.

Summary

Market analysis is defined by the six-step process, which lays out a roadmap 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 in terms of depth of research and intensity of analysis. Step 3 varies because fundamental data is analyzed in a Level C analysis only, while inferred data is relied on in Level A and B analyses.

About the Author

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