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# Preface—A *Practical* Approach

“**H**ow much is it worth?”

Every investor begins with this question. The question of *value* is at the core of the decision. It is the essence of the decision to buy one property and to reject another.

Value is a complex topic because it is partly subjective and partly determined by outside forces. A particular piece of property—whether residential, commercial, or industrial—will be valued based on its location, improvements, zoning, competition, local employment, and the availability (or lack of availability) of other, similar properties. For the serious analyst, the question should be, How is real estate value properly determined? There are numerous methods and theories available, some scientific and others utilizing inaccurate statistical bases or national (rather than regional or local) trends. We propose the use of scientific methods and, at the same time, an overlay of practical considerations regarding local markets, risk tolerance, cash flow, experience, tax benefits, and real estate-focused fundamental analysis. Just as stock investors recognize the importance of the fundamental analytical tools in the selection of stock, the same approach can and should be used in the analysis of real estate.

It is neither possible nor advisable to try to determine value based merely on a visual inspection or other nonfundamental indicators. Such decisions are better made based on comparative shopping and analysis and a thorough comparative approach to the *entire* real estate market. Ironically, some investors make a decision to purchase without careful and thorough analysis and, in some cases, without even defining the means for assigning value. For some consumers, a property is worth whatever its listed price may be, or whatever a real estate broker says. Considering that the same consumers are likely to purchase automobiles with greater care, this is a puzzling way to buy real estate. A car buyer will likely visit two or more dealers and, at the very least, take cars out for a test drive. Why comparison shop for \$20,000 cars but impulse-buy a \$250,000 investment property or residence?

The example of the impulse-buying real estate buyer is the extreme. Most people are not that impulsive. However, real estate investors *are* faced with the problem of how to analyze real estate values and, if they are to

succeed, they also need to develop the means for reliably analyzing the real estate they are considering buying. What factors determine value? What are the appropriate means for comparison between like-kind properties? Why does a subtle difference in location make a vast difference in price?

These and similar questions are enormous challenges for the real estate investor. We cannot shop for property based on a single criterion, and we cannot limit our examination to the same criteria in all cases. For example, it is not prudent to shop for commercial rental property using the same valuation methods as we use when buying residential property. We cannot even make the same underlying assumptions about two similar properties in different locations. The collective economic, demographic, and local factors affecting real estate values have to be studied and analyzed collectively if we are to make an informed decision. Real estate analysis can be performed by anyone; however, it is not enough to place trust in a broker or seller, and we cannot pick real estate from classified advertising. Those media are starting points in the search; informed decisions rely on more detailed analysis and study.

It is a mistake to rely on others to identify value without further study. Even so, a vast number of investors do not ask the right questions or even know what questions to ask. Those who do inquire usually limit their dialogue to one with a real estate broker, who may not even be conversant in the art of real estate analysis. Most state tests for real estate licensing are surprisingly easy and require little in the way of actual analytical knowledge. Emphasis is usually placed on more mundane matters such as knowing how to fill in the standard forms for real estate contracts; agent and broker liability and how to prevent it; and knowing about buyer and seller rights and duties. Few real estate agents can provide advice on estimating cash flow, analyzing relative value and investment potential, or the current state of local supply and demand.

Even so, the buying public (including many mom-and-pop investors) presumes that the real estate broker has the answers. The broker's job is to move property onto the market, and the more properties they close, the more commission they earn. Emphasis is placed on bringing together a willing seller and a willing buyer. But as many prospective buyers often overlook, the broker usually works for the seller. Consequently, so the process of real estate analysis—which is of greater interest to buyers than to sellers—is not within the bundle of motivations that the broker has in mind. Therefore, if you do not know how to critically analyze real estate values and you depend on the assurances of a broker, you are on your own.

This book addresses the problems of analyzing real estate with several possible readers in mind. A number of investors allocate a portion of their capital to real estate through direct ownership, partnerships, or pooled in-

vestments (mortgage pools, for example, operate much like mutual funds, with portfolios consisting of mortgage debt rather than stocks or bonds). Business and real estate students and professors will also find this reference to be valuable in developing—at the very least—an approach to issues of valuation and investment in real estate.

The book has been organized to present material in a *practical* manner. What does this mean? Many years ago, a workshop was held at a conference for stockbrokers. One of the audience members asked a panel, “How can we do a better job helping our clients to make investment decisions?” One of the panel members advised, “Pretend it’s real money.”

We are going to offer the same advice in this book. When we use *theory* by itself, we can have all of the answers. However, to make theory practical, we also need to provoke thought within ourselves. We ask basic questions and try to provide answers that may surprise many readers. Good rule-of-thumb advice, whether conceptual or practical, is valuable as a starting point; but we want to go beyond, to help our readers to think of money invested in the real estate market as *real* money, and not just as an exercise in the theoretical process of investing.

We begin with three chapters that discuss real estate analysis overall. These topics are essential for all investors, consumers, and students of real estate topics. Chapters 4 through 6 discuss specific popular types of property and isolate their unique features. The analysis of each type of real estate rests largely with the features each type of property contains. Thus, valuation of single-family residences (Chapter 4) will not be identical to the process of analysis for multi-unit properties (Chapter 5) or retail properties (Chapter 6). Chapters 7 through 9 examine valuation and means for analysis of nonresidential investment properties: office and industrial (Chapter 7), lodging and tourism (Chapter 8), and mixed-use real estate (Chapter 9).

Throughout the book, our goal has been to provide useful tools in the form of statistical information, examples, charts and graphs, and case studies. The organization and format of the book is intended to ensure that the information can be absorbed and converted to practical applications.



# The Essence of Analysis

*Analysis is an elusive process; whether investor, appraiser, or student, understanding the essential points to consider is itself a difficult process. In this chapter, we introduce the fundamental methodology as a starting point for deciding whether an investment makes sense. We examine the question, Who uses market analysis and why? Finally, we demonstrate how raising capital for investment purposes must be premised on a foundation of solid analysis.*

**K**nowing the right questions to ask is a wise starting point in any inquisitive task. Otherwise, we cannot identify the underlying assumptions necessary to arrive at an *informed* conclusion. A market analysis may have several different meanings, just as a *real estate market* is not necessarily going to mean the same thing to different people. We recognize a definition of real estate market as

*the interaction of individuals who exchange real property rights for other assets, such as money. Specific real estate markets are defined on the basis of property type, location, income-producing potential, typical investor characteristics, typical tenant characteristics, or other attributes recognized by those participating in the exchange of real property.<sup>1</sup>*

We also need to recognize that *analysis* may fall into several distinct and separate functions within the broad function of market analysis.

## **BASIC MARKET ANALYSIS CONCEPT—AN OVERVIEW**

We view *market analysis* as a broad overview of supply and demand attributes for property, including site-specific and local factors and current as well as emerging competition. To begin, we provide some basic definitions. Additional definitions may also be found in the book's Glossary. *Studies that focus on the market include:*

*Analysis of local economies:* Studies the fundamental determinants of the demand for all real estate in the market.

*Market analysis:* Studies the demand for and supply of a particular property type in the market.

*Marketability analysis:* Examines a specific development or property to assess its competitive position in the market.

*Studies that focus on individual decisions include:*

*Feasibility analysis:* Evaluates a specific project as to whether it is likely to be carried out successfully if pursued under a proposed program. May relate to developability. Most often related to financial feasibility.

*Investment Analysis:* Evaluates a specific property as a potential investment. Usually incorporates specific financing in the analysis, and may evaluate alternative financing options to select most appropriate financing or consideration of income taxes. Emphasis is on risk and reward, sensitivity analysis, and internal rate of return.

With these definitions in mind, the value of the market analysis becomes apparent. It is a study that tries to identify the market for a particular real estate product. Why would we want to understand the market? Real estate markets are *not* efficient markets like the stock market, and pricing does not occur every day.

Whenever someone undertakes a real estate transaction, a market analysis must be performed. This could range from an informal process to a two-inch-thick book.

Three key questions should be answered by the study:

1. Will there be users to rent or buy the proposed product?
2. How quickly and at what rent or price will the proposed project be absorbed in the market?
3. How might the project be planned or marketed to make it more competitive in its market?

In market analysis, three phases are involved: collection of data, analysis, and recommendations. It all starts with data, which may be found in many places.

*Primary*, or *raw* data is unanalyzed, often collected in person by the analyst. It may include reading classified ads, new development announcements and legal notices, or Census data. *Secondary* data has gone through the analytical process by someone else, who tells the analyst what to conclude. Secondary data has bias.

The analyst needs to consider bias for all types of data. For example, even primary data may include unintentional bias. Even Census data may include undercounts of immigrants, as one example. Secondary data helps the analyst develop a sense of the market, but primary data is much more valuable and accurate.

Think of the data as coming from two sides—demand and supply—and in that order. Why? On the demand side, the analyst includes:

- Population, number of households, and demographic characteristics.
- Income, affordability, and purchasing power.
- Employment, by industry or occupation.
- Migration and commuting patterns.
- Other factors.

On the supply side, the following are included:

- Inventory of existing space or units.
- Vacancy rates and character of existing property inventory.
- Recent absorption of space, including types of tenants or buyers.
- Projects currently under construction and proposed.
- Market rents/sale prices and how they differ by location and quality.
- Features, functions, and advantages of existing and proposed projects.
- Terms and concessions.

Information sources are not limited, either. Analysts may include, among other sources newspapers, Census and private databases, tax rolls, advertisements, and maps—in other words, any source that reveals something of interest.

The value of direct interviews should not be forgotten in this information-gathering process. The analyst may interview brokers, owners, urban planners, local officials, and so on. Interviews provide guidance and open the analyst's eyes. The goal in the interview is to ask as many people as many questions needed to understand the marketplace in order to synthesize a complete picture.



The data gathering process should be thought of as *competitive intelligence*. Market analysis should be tied in with an understanding of the psychology of the different players. In order to understand whether a proposed project is real, we need to understand the game of business. It is not enough to just say what is going on; we need to understand the players involved. Going even further, it is not just enough to know the players. The analyst also needs to know the local government. In the real estate business, government is your largest partner. If you want to do a project, you need to understand how the political framework either supports or hinders you based on the desires of elected officials.

Market analysis is generated by virtually everyone in real estate:

#### *Private Sources of Analysis*

Appraisers.

Brokers (leasing and sales).

Developers.

Investors.

Asset managers.

Lenders.

#### *Public Sources of Analysis*

Urban planners.

Economic development consultants.

Public agencies.

It is interesting to determine—and to study—whether private and public analyses mesh or even agree in their conclusions. There are certain ways that the two sides may be specifically biased. In the private sector, market analysis is used to maximize profits (and to reduce losses by reducing market risks). However, the goals of the public sector are often quite different, including a context of impacts beyond profitability or feasibility, such as density, traffic, or design.

Is there such a thing as an unbiased analysis? The answer: Yes. Whichever one *you* are doing.

The serious analyst—absence of bias aside—should be keenly aware that the process itself invites bias. The analyst cannot fall in love with a project and remain objective.

One effective method for identifying market analysis is by taking note of which group or groups use the analysis. These may include

developers/builders, investors and lenders, designers, marketing managers, local governments, appraisers, assessors, tenants and occupants, sellers, purchasers, landowners, and property managers. Within the context of identifying the end-user, it also is important to note that the market analysis data feeds into the process of feasibility analysis. The two phases—market and feasibility—are directly affected by the analyst's conclusions about market area.

Defining the market area can be broken down into attributes of the question, What location and physical space make up the market area? This includes natural features, constructed barriers, population density, political boundaries, neighborhood boundaries, type and scope of development, and location of the competition. This level of analysis next leads to a study of primary and secondary trade areas. Some important considerations define how accurate the analyst's work will be. For example, do you use geographic rings to define the trade area? Putting it another way, is the trade area a circle? In practice, trade areas are actually formed by travel time and other market factors, and true trade areas are rarely suitable to explain with the use of perfect circles. For example, residential zoning and commercial clusters may more accurately define the trade area.

Following the gathering of data, the next step is to analyze. A site's advantages and disadvantages can be studied and compared in terms of zoning and comparisons to the competition: location/linkage to other services and properties, rent or purchase price, unit sizes, occupancy costs, parking ratios, building/project amenities, technology, security, and maintenance (current expense level *and* any deferred maintenance).

In performing the range of analytical tasks, one aspect of real estate valuation within the broader scope is the more concentrated *analysis of local economics*. This study of supply and demand is viewed as specific to a narrowly focused region or city. Furthermore, whereas market analysis tends to be associated with the economic conditions affecting valuation of a particular property or property type, analysis of local economics applies to all real estate within a region.

We also want to make a clear distinction between market analysis and *marketability analysis*. The latter is a study of the relative competitive position of a project within the existing market and anticipated market trends in the near future.

While studies such as these (market analysis, local economics, and marketability) tend to be broad-view market studies, two additional types of analyses are more specific to a particular project. First is the process of *feasibility analysis*, which is intended as a study of whether the numbers work, given the current perception about how a project should proceed, what it will cost, and who will buy or rent the property. The range of

analysis includes a feasibility study, which we examine later in this chapter. However, the analysis is a larger process focused on financial questions but intended as a critical review. If the financial aspects of the project are impractical, it needs to be modified so that questions relating to financial feasibility produce more favorable answers.

A related process is called *investment analysis*, and it looks at the same financial questions but from the investor's point of view. Feasibility—usually associated with developers and project management—is a part of the developer's market analysis, whereas investment analysis takes the same issues and examines them with a different set of choices. A developer may tend to compare various projects, sites, and real estate markets; an investor is likely to compare potential real estate investments to nonreal estate alternatives as well. The investor will, of course, review financing considerations as part of the analysis; however, financing is not isolated to investors alone. Lenders and potential lenders will perform a variation of investment analysis to analyze risk and to identify the most appropriate type of project financing. Overall, investment analysis, whether performed on behalf of equity investors or potential lenders, will want to include an analysis of cash flow, tax benefits and costs, and comparative return analysis.

To what extent should analysis go? Is it expensive, formal, and time-consuming in all situations, or should the extent of the process be determined by the project? For an experienced speculator, for example, who is familiar with local conditions and trends, an analysis may include a quick and informal study of a specific property. For an outsider, analysis may involve a more detailed study. For someone requiring local approval or extensive financing, that analysis may be a thorough research on many levels.

An expanded definition explains how analysis continues to work after initial decisions have been made concerning where, when, and how to build a project. Market analysis and research are not isolated functions occurring only at the very front processes of the project but are best utilized throughout:

*Market analysis is a crucial part of the initial feasibility study for a real estate project, but it does not end there. Market research continues to play an important role in shaping the project throughout its development and management phases. Market analysts are commonly consulted for repositioning strategies after a project is up and running and the developer realizes that absorption does not meet projections. As many types of market analysis exist as variations in development projects, stages of development, and interests being served.<sup>2</sup>*

In its final form, analysis may be published as a market study or a feasibility study. In some cases, these are one and the same. However, we make a clear distinction. Market analysis, as a collective process, includes an identification of the timing for demand; the direct relationship between demand and supply (the analysis of which should consider the role of competition), and calculations of investment rates of return.

## **MARKET STUDY AND FEASIBILITY STUDY: THE DISTINCTIONS**

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A *market study* should always begin by answering specific questions that may be raised by lenders or equity partners, or by investors themselves. The document has added value as well. For example, regarding subdivision developments, a survey among developers and bankers concluded “that a well-documented market survey was a key component of the appraiser’s report.”<sup>3</sup> Such a survey often is mandatory in defining the market area itself. That definition phase should be the first step, according to a real estate research company’s president, who also advises that “all market analysis should focus on three basic areas of evaluation: the site, the demand for the product, and the supply of comparable products.”<sup>4</sup>

The issues of site plus supply and demand analysis lead us to a series of critical questions:

1. Is there adequate demand for the improvements existing or proposed, so that assumed vacancies will be low? This should include analysis of population demographics, income, employment, and growth forecasts. Additional market components beyond the analysis of supply and demand may go to price segmentation and coordination with marketability (development concept in the context of the market, current available sites versus what end-users want, and market absorption analysis, for example).
2. Is there a market demand for such improvements and how readily will the development be sold on the market? How will the proposed development impact on current supply in the immediate area (local market) and the broader market (regional)?
3. How will the development be paid for, and what is the source of funds?

These three questions will be expressed in the next chapter in a somewhat different form, that of *supply and demand*. We recognize three forms

of supply and demand, involving tenants, real estate acquisition/sale, and financing. For now, we want to review these important questions and even expand upon them in defining the scope of a market study. To continue, a market study will also include the following questions, concerned with marketability rather than with the conditions of the market:

4. What competitive developments exist and how should *this* project be designed, planned, and marketed to effectively compete? In other words, what is the specific development concept in terms of site plan, architecture, design, and the proposed market itself (tenant, shopper, user)?
5. What relevant factors affect our determination of the market? (Consider the effects of local employment trends, population mix, and even the existence or lack of similar properties.) What is needed in the market today, and how does this development address that demand? Can the design and concept of this development be improved, and if so, how?

These five questions—involving questions of supply and demand—are at the heart of the market study. In comparison, a *feasibility study* focuses on financial aspects of a proposed development or acquisition. While the financial aspects of market analysis and valuation may be viewed as coldly factual, a lot of room for interpretation is likely to be found. The numbers reflect varying forms of reality, but the whole question comes back to supply and demand and the marketability of a project concept. Expressing this in market terms, “three possible courses of action . . . exist in real estate feasibility: (1) a site in search of a use, (2) a use in search of a site, and (3) an investor looking for a means of participation.”<sup>5</sup>

What is the purpose of the feasibility study? If we view it simply as a means for crunching numbers, then the value of the report will be limited. In fact, number crunching can and should provide a developer, builder, or potential investor with a far more important outcome: the determination of whether the risks of proceeding are justified. A skeptical approach—assuming a project will *not* work—is often a smart approach. One business consultant explained this aspect of feasibility:

*The first goal of a feasibility study or business plan should be to determine whether or not the potential entrepreneur should actually take the plunge . . . the default conclusion should be that the [project] will not succeed. Thus, the plan must convince potential investors [and] lenders . . . that the [project] will succeed.*<sup>6</sup>

Another expert has observed that the process of feasibility analysis should relate more to what will work and less to what the costs will be, a concept that often is forgotten in numbers-oriented feasibility work. That expert observed that

*... the steps necessary to evaluate the economic feasibility of a project are frequently confused with a variety of other tasks. Often this confusion leads to the recital of various statistics dealing with population size, growth rates, average income, median home selling price, employment growth, unemployment listings, and the like. Too often the result is that pure statistical information is substituted for the analytical process necessary to determine the economic feasibility of a project. ... Some believe the [analyst's] role should be limited to answering the question "what is it worth?" and leaving the question "will it work?" to others."*<sup>7</sup>

We can accurately define *feasibility*—at least in part—as the matching between various elements of supply and demand, expressed in terms of cost and benefit. The kinds of questions you will find in a feasibility study are broader in scope because these various elements are complex; however, the primary areas involved will include:

- What is the target market for the proposed development? (In retail projects, the target has two components: potential tenant stores, and shoppers, so the target needs to be evaluated with both of these groups in mind. In residential projects, the target may be either a home-buying family or a renter, depending on the project and scope envisioned in the development process. Mixed-use projects are especially complex regarding target markets. For example, in urban areas such as Manhattan, some projects involve retail shopping areas and hotel, residential, and recreational features in a single complex.
- What comparable properties are on the market, and how will competition affect pricing in our case? (If a lot of similar properties exist, does it make sense to build another? If so, why?)
- What is the performance level and market demand of the competition? (This may include vacancy rates in multi-family complexes or sales in a mall, for example.)
- What level of *financial* performance is projected? Specifically, the feasibility study works like the well-known business plan model in its projection of cash flow, intended to demonstrate that the proposed project will remain solvent even with a reasonable assumption about vacancy rates, market rental rates, and seasonal variation. Both investors and

lenders will also be keenly interested in conclusions drawn concerning the cash flow impact of debt financing *and* the impact—positive or negative—of taxes.

- What risks are faced in investing in this project (for equity partners) or in lending money to finance this project (for lenders)? The range of risks may involve negative cash flow caused by high vacancies and unanticipated expenses, changes in the local economic climate, and reversal of current demographic trends; the feasibility study should raise all of these questions.

## **WHAT SHOULD A MARKET AND FEASIBILITY STUDY CONTAIN?**

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While there is no set format for the study document, the typical market analysis will contain the following items:

*Cover page*—The type of study, address of property, and names of the team members.

*Letter of transmittal*—Major findings, conclusions, and recommendations.

*Table of contents*—A list of all the sections.

*Nature of the assignment*—Description of the assignment, methodologies, and approaches used, and the scope of services undertaken.

*Economic background*—Establishes the market framework; discusses the larger market areas first (i.e., regions and/or cities) and the smaller market areas last (i.e. neighborhoods). Analysts should be sure to cover all the influences: physical, economic, governmental, and sociological.

*Description of the property and proposed development*—A description of the site and improvements should be provided separately. This section explains the physical and economic plan proposed for the site.

*Competitive developments*—While the economic background will include market data on the competitive supply, this section should include details on the development's most significant competition (existing, planned, and proposed). It should include rental rates and sale prices, vacancy rates, size of projects, and other information.

*Market potential*—Here the analyst establishes how well the proposed development will capture demand in light of the economic back-

ground and compared to the competitive developments. This is the place to quantify demand for the development. Where does the demand come from for the proposed plan? How is your proposed plan different or the same as the competition?

*Conclusion of marketability*—This section should not include any new data. This is the part dedicated to pure analysis. Everything included in the body of the report analysis so far is used to make a case for how the proposed development will compete in the marketplace.

A 10-year pro forma should be used, based on an assumed sale of the property at the end of year 10. The pro forma will require certain assumptions about rental rates, vacancy rates, absorption rates, and operating expenses. If the proposal is for a condominium development, the concept is the same, but an appropriately shorter holding period should be used.

*Addendum*—This section is used for any supporting documents such as site plans, maps, and material supporting other sections of the report.

*Exhibits*—In specific sections or as an appendix, include valuable additional items, including a map identifying the location of the subject, competitive developments, and the market area; photographs of the subject property, its block front and the block facing it; and schedules of competition (size, rent/sale price, and vacancy).

This format is meant only as a guideline. Actual format should be dictated by materials needed to make the case; the unique attributes of the proposal; and a mandate given to the analyst as part of the assignment.

The reporting format may include both market and feasibility study features. The distinctions between the two types of studies demonstrate that the range of requirements for thorough market analysis is comprehensive. An important difference to remember is that the market study may remain relevant for a considerable period of time, whereas a feasibility study is likely to evolve as financial realities change, including employment, construction and land costs, and other economic data (market rents for residential, lodging, office, and industrial properties, for example). The problem of reliability in a feasibility study in the lodging industry has been expressed by a market expert:

*Are feasibility studies accurate? They probably are at the time they are performed. But hotel markets are highly dynamic, and unforeseen changes . . . can have a devastating effect on a hotel's future*



*operating performance. With all these interrelated factors (positive and negative) occurring in a highly random pattern, predicting the future income and expense of a hotel is like determining the Dow Jones average three years from now.<sup>8</sup>*

## **THE FIRST STEP IN THE MARKET STUDY: MARKET AREA**

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The market study is usually the result of thorough market analysis; but what form does this report take? In order to make this study useful to the reader (whether approval-granting agencies, equity partners, or lenders), the study should be organized in a logical manner, so that information presents a clear picture of the market in all of its meanings; so that important information can be easily located; and so that decisions can be made.

As with all well-organized reports, the body of the report should be in a narrative form, with supporting documentation within the report provided in graphic forms; and with detailed supporting documentation provided in appendix form. This format makes the report easy to read and digest; it keeps the body of the report fairly short (even when the supporting back matter is voluminous); and it highlights and explains four key areas of evaluation: overall market area, location-specific factors, demand factors, and supply of comparable properties.

These four aspects of the market analysis are designed to ask critical questions. In other words, if we are able to demonstrate that the market area, location, demand, and supply elements favor proceeding, then it would make sense to others as well. Equally important, if in the process of performing market analysis, we are unable to make a convincing case for the project, then why would anyone else want to proceed? The purpose to market analysis is to critically evaluate the underlying questions, and to determine whether or not the market is situated so that the project should proceed.

The starting point is a study of the *market area*. This is the range in which supply and demand operates. Traditionally, market area has been analyzed on the basis of studying the land physically. Today, however, new technology has expanded the potential of market area analysis, explained in one real estate book as being a new tool to assist market analysts in many ways:

*Although analysts have traditionally been forced to approximate market areas by using census tracts, zip codes, or county boundaries because of data limitations, emerging geographic information*

*systems (GIS) technology, or electronic mapping, is liberating real estate decision makers from relying on arbitrary boundaries.<sup>9</sup>*

This new technology enables the analyst to look at geographical information from a truly big picture view. Artificial boundaries do, indeed, obscure the true market area in many instances. For example, a retail shopping center would be designed to serve a specific population and geographical market area, which also makes it possible to estimate the reasonable assumptions concerning traffic volume and potential sales. However, a careful study of the market area may point out that the results are not always as obvious as they may seem at first glance.

Everyone will agree that market area is an important starting point. You will want to identify the regional realities defining the potential

### **CASE STUDY: BELLIS FAIR, WASHINGTON STATE**

In the typical market area analysis for a retail shopping center, we would study local population in order to determine whether a project is supported by the market. This does not always work, however; you also need to study the specific area to determine how market forces work. In Bellingham, Washington, the regional mall called Bellis Fair opened in 1988 on Interstate 5 in Whatcom County. At the time, many people criticized the plan for this development, arguing that the local population could not support the mall. Population at the time in the largely rural county was only about 120,000 (as of 2004, Whatcom County, Washington's population is 157,477). However, Bellis Fair has been a huge success.

Daily shopper traffic exceeds 35,000 people. The mall has 150 stores, with anchors of Bon-Macy's, J.C. Penney, Mervyn's, Sears, and Target. Overall, Bellis Fair has 768,906 square feet of leaseable store area on its single level, and 4,730 parking spaces.

How is it possible? The location—Bellingham—is the largest city, but its population is less than 70,000. The closest large city in Washington is Seattle, nearly two hours to the south. Bellis Fair is not a destination from that distance, so where is this market coming from? The answer: Canada. Bellis Fair is a mere 23 miles from the busiest border crossing, known as the Peace Arch. Here, U.S. Interstate 5

*(Continued)*

**CASE STUDY: BELLIS FAIR, WASHINGTON STATE (Continued)**

crosses into British Columbia. The metro Vancouver region (the area encompassing the border, north to the suburbs of Vancouver itself) has more than four million population. This is the dominant *market area* for Bellis Fair. A majority of shoppers in Bellis Fair come from Canada. The current exchange rate is 80 cents of Canadian to U.S. dollars, so Canadian shoppers enjoy a 20 percent discount by taking a short trip south. Given the added impact of high Canadian sales taxes, shoppers have even greater incentive to shop south of the border. British Columbia sales tax is 7.5 percent (as of 2004), plus federal taxes of 7.0 percent paid by all Canadians. So shopping at home costs 15.5 percent on top of the retail price, compared to a Washington State tax rate of about 8 percent.

Conclusion: Any *market area* study must look realistically at the effective market. The border between the United States and Canada (or between any two states) is artificial in terms of market area. It would be inaccurate for Kansas City, Kansas, to draw conclusions limited only to Kansas residents; obviously, the larger Kansas City, Missouri, market would dominate the market area. The same rationale applies in the case of Bellis Fair. The local population could not support a larger retail mall (daily traffic exceeds one-fourth of the county's population). The success of this mall has to be defined in terms of broader economic and demographic forces.

market itself. One modern tool worth using for the more complex market area studies is Geographic Information Systems (GIS). These systems may include any database with the ability to indicate a geographical location or spatial dimension for the variables in the database. . . .<sup>10</sup> Given the case history of Bellis Fair, it is clear that such regional factors are not always obvious. In any modern market area study, GIS would very likely uncover valuable insights for similar project studies. Additional market analyses may also be required beyond the geographic location of a perceived market. Some guidelines:

- Identify the region not only in geographical terms, but also in terms of where the market exists.
- The market area for tenants may be drawn from the immediate area as well as from other areas. For example, with residential projects this

could be related to the location of employment and ease of access to transit lines.

- Any project's analysis should include consideration for how the new project will affect existing projects. For example, meeting an assumed demand for residential housing may lead to higher vacancy rates in existing multi-unit developments.
- Be aware of the differences between artificial boundaries (county lines, state borders, etc.) and built boundaries like freeways that cut through neighbors, thus defining or restricting a market area.
- Be aware of historical patterns of development based on ethnic or cultural ties. These boundaries change and evolve over time, but they are remarkably persistent.
- Be cautious in making undocumented assumptions concerning the appropriate size of a development *or* the size of an existing market area. Initial assumptions should be studied critically and conclusions should be subjected to testing.

## **THE SECOND STEP IN MARKET ANALYSIS: SITE EVALUATION**

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Studying the market area enables us to take a broad view of the region. Clearly, the features of one area over another will vary considerably, and the factors are not always obvious. The features within an area affect the conclusions. For example, an interstate freeway, major border crossing, or employment trends in one city or region are going to significantly impact your conclusions about the market area. This leads into the second step, the more specific site evaluation.

A *site evaluation* should include comparative analysis—site to site—of physical properties such as topography, shape of the land, surrounding uses, and proximity to important features (such as transportation, for example). Comparative analysis helps you to assess a particular property or series of potential sites with features in mind. A shopping mall situated near a freeway exit would, naturally, have greater potential than one outside the city limits and away from the visibility of potential shoppers, the convenience of access via roads and transit stations, and the overall practicality of siting a shopping mall on well traveled routes. For residential property, local transit and access to conveniences such as schools and shopping, also play an important role in comparative site evaluation. While it may be obvious to some, it is important that the analyst walk the

site. Sound real estate analysis cannot be done thoroughly from a desk or, for that matter, from behind the wheel of a car.

The question of zoning cannot be overlooked in site analysis, either. We cannot simply assume that, given the acquisition of land for a specific purpose, a rezone is automatically going to be granted. Lower-priced property may be so priced due to its current zoning, and local authorities (not to mention citizens living nearby) are likely to resist a rezone merely for the convenience (and profit) of development interests. On the other hand, in some cases approval for rezoning is relatively easy to obtain if the new project will benefit the community and local government through increased tax revenues. The potential problems of investing in land when zoning problems may arise is one risk factor in the site evaluation. You may need to compare overlooked but potentially profitable land with more obvious sites. The cost of already-zoned commercial land may be far higher, but the risk of antigrowth movements among citizens, or denial of rezone applications by local governments, is largely removed when zoning issues are not on the table.

The many questions that arise in site evaluation apply to every type of land use. The questions include whether a particular site is appropriate for the planned use; whether it is the best available property; whether there are amenities close by (public recreation, shopping, schools, etc.); and the larger question of whether citizens and local government would welcome your planned use.

Potential resistance to your proposal may exist even when zoning is in place. Those states that have enacted growth management legislation may impose restrictive growth limitations.

For example, a common principle in growth management laws is that a specifically identified urban growth area (UGA) should be in-filled before any new development is to be allowed outside its boundaries. While intended as a means for preventing urban sprawl, the actual result may be draconian density within the urban fringe with little or no growth on the outside.

For the purpose of site evaluation, it is crucial that you also check state

### Valuable Resource

A web site linked to many of the state growth management sites, and identifying additional useful publications on the topics, is <http://www.realtor.org/sg3.nsf/pages/landusezonegrowmgmt?OpenDocument>

and local laws beyond mere zoning. The zoning itself is meaningless if, due to GMA legislation, you will not be able to gain approval for your project because the site lies outside the UGA.

Growth management rules may further require that you *prove* the need for the development you propose as a precondition for approval. For example, you may need to evaluate a site within the context of a county's inventory of land sharing the same zoning. How much of that land is developed and under operation? Can you establish a demand for additional lands both zoned and developed in the same way? You may discover that opponents will use GMA rules to prevent new development, even when zoning is appropriate. While we may assume in most cases that properly zoned land is implied approval for your development, it is not necessarily so. You may win the point, but delays and legal fees could make it less feasible. In comparing one site to another in GMA states, you may need to limit your site evaluation to available land inside the existing urban fringe, or be prepared to prove the need for your development outside that boundary.

### **THE THIRD STEP IN MARKET ANALYSIS: DEMAND FACTORS**

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Closely related to the site evaluation and the practicality of developing a specific piece of land is the question of demand. Demand may be a factor of current zoning, inventory of lands zoned in that manner, and the boundaries of an urban area that has access to reasonably priced municipal services. It may not be limited to the widely understood definition of market demand.

Because *demand* does not necessarily mean the economic version of demand, we need to be cautious in interpreting statements made by others. For example, a local politician or antigrowth activist may state that "there is no demand for a project like this" in the area. What does that mean? In fact, it could mean that forces are at work to *prevent* such projects, whether market demand exists.

Economic demand is a form of demand in which consumers need and want more of a commodity or type of outlet (shopping center, apartments, houses, etc.) or, when that demand would be likely to follow if and when the development occurred. For example, a community may reside 60 miles from the closest large-scale regional mall. The lack of such a mall right in town does not prove that there is lack of demand; in fact, were such a development to be built, it is logical that shoppers would arrive almost immediately at that destination rather than traveling 60 miles.

So a study of demand should include an understanding and study of market forces and trends, but it is not necessarily so limited. We may face a more political definition of *demand* as well. At times, the real agenda may be to prevent change in any form; in that environment, appropriate zoning and municipal code provisions may not be enough to gain approval for your project. This is understandable; development is change, and change is often resisted for no other reason than because it is perceived as negative by some people. You may need to include as part of your demand analysis the local *political demand* for development. In some jurisdictions, political demand is at zero. From a development perspective, regardless of the economic demand, the project may simply not be feasible because of politics.

This problem is prevalent in many areas, but the range of problems associated with antigrowth sentiment in residential development (and most notably against low-income housing) is especially severe. As a matter of public policy, slow growth policies may ultimately prove the point that when government tries to control growth, it causes only badly planned growth but cannot truly prevent it. This problem is aptly described in one GMA-oriented web site, observing:

*Jurisdictions are not accommodating growth because they either refuse to comply with the law, need political cover from NIMBY mentality, or lack the resources necessary to provide infrastructure, amenities and low income housing. During times of high demand, jurisdictions must do more to accommodate the need for housing. While the private sector determines the market for housing, each jurisdiction determines the availability of land to develop through comprehensive plans, zoning codes, permit requirements, fees, taxes, and other costs that may serve to encourage or inhibit growth.<sup>11</sup>*

## **THE FOURTH STEP IN MARKET ANALYSIS: EXISTING SUPPLY FACTORS**

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The concept of *supply* is as complex as that of demand in areas where legislation has been drafted in an attempt to control or even to prevent growth from occurring.

In an economic sense, *supply* is well understood. It is in reference to the available properties designated for a specific use. When economic supply is high, prices will soften because demand lags behind. When supply is short and demand is greater, prices are driven up. This basic economic concept is not complex, at least when viewed in its theoretical definition.

There are three specific kinds of real estate supply: already built, under construction, and proposed. Each of these has a different level of reliability, and the variables should be discounted by the analyst. For example, developers sometimes announce a project that they do not have tenants for, only as a way to scare off other developers or to try to attract a potential tenant in order to drive the development; most downtown office buildings cannot be built or financed without a committed tenant. So it is a common practice among developers to announce construction more as a marketing ploy than as a statement of fact.

In a written market study, the questions of supply and demand may be limited to a purely economic analysis. If a market study is undertaken to convince lenders of the viability and cash flow strength in a proposed project, those economic analyses are quite appropriate. The same is true when the study is designed to attract equity partners or to gain approval for tax credits in low-income housing, for example. However, if the purpose of a market study is to determine whether a project is viable both economically and politically, we need to look beyond the economic version of supply.

In residential developments, antigrowth conflict is often associated with questions of supply. Antigrowth forces may argue that there is an adequate supply of housing and it is not necessary to construct more. This argument is made even when economic demand is evident. However, the antigrowth argument continues: If we build more houses, more people will move here. That means more traffic, higher crime, the need for improved roads, larger schools, and other consequences of growth. So *supply* may come to mean *need* rather than a purely economic study of whether there are enough buyers available.

For commercial developments, the question of supply is equally complex. A market study would review buying trends, traffic patterns, logistics, and site-specific questions in order to convince the reader of the study that a mall, for example, would succeed at a specific site. Included in this study would be commercial vacancies, affected by shifting traffic and shopping trends, local and regional competition, and typical rental rates in the area.

Demand for either residential or commercial developments also needs to include a study of the trend in net absorption or, in the case of single-family homes, real estate sales trends in recent months.

*Net absorption* can be expressed as the square footage of *available* space over time, modified by vacancy levels. More specifically:

$$\begin{aligned} \text{Net absorption} = & \text{space occupied} - \text{space vacated} + \text{space demolished} \\ & - \text{construction of new space} \end{aligned}$$



For example, in a particular city, residential vacancies have consistently run below 5 percent; however, in the past two years, several hundred new apartments have been added to inventory and today, vacancies range seasonally between 10 percent and 15 percent—a substantial increase. So net absorption has diminished. The question next becomes, How long will it take for the market to absorb the oversupply so that net absorption will improve? This estimate would have to be based on economic and demographic trends in the area.

In the case of properties for sale, demand is judged based on several forms of analysis. Checking with local lenders and Multiple Listing Service (MLS) offices, we find statistics concerning housing sales over the past one to three years. What is the trend in the inventory of properties? (*Inventory* is the number of homes available for sale, expressed in terms of the months of demand. For example, if 200 homes are sold per month and there are currently 600 homes on the market, then there is a three-month inventory.) The trend in inventory levels reveals the demand. If the inventory level is growing, then demand is falling. The trend reveals the health of the local housing market.

A related test is the *spread* between the asked price and the final sales price for properties. The wider the spread, the softer the demand. In markets where demand is exceptionally high, spread tends to be low. So again reviewing the trend, we would analyze demand in terms of whether the spread is expanding or contracting.

The third important test is time on the market. How long does it take properties to sell? In a high-demand market, well-priced properties sell very quickly and, of course, when demand is soft, even bargain-priced properties may remain on the market for many months. What is the trend? The answer reveals the level of demand and, more revealing, the trend in that demand.

Developers hiring outside firms to prepare market studies should ensure that the firm is qualified in the particular type of development being studied. The study should also identify specific factors given the market in question, rather than relying upon some generalized formula. For example, many studies are prepared based on markets defined via radius (three or five miles are common markets in such studies). But this method is not applicable in most areas. A real market may consist of people living along a highway as far out as 10 or 15 miles while few other potential buyers or consumers will be found within a mile-based proximity. The underlying assumptions of the study should be based on the geographical and local features rather than on a formula that almost certainly does *not* apply. For example, *drive time* is often a more reliable indicator of markets than actual physical distance.

One expert has noted that one significant error

*is the failure to recognize that a new development will be able to capture only a share of the market, rather than the entire market. New projects do not necessarily create new demand. Many analysts incorrectly assume that if there is sufficient demand in the competitive market to absorb five lots per month, a new project will automatically capture all this demand.*<sup>12</sup>

The same argument applies to economic modeling within the market study. Broad-based assumptions should be rejected and the market study based on the local realities and economic mix. This is essential if the study is to truly identify the market in terms of supply and demand. Such economic features cannot be formula-based because every region and municipality is unique in terms of its demographic and economic mix. The market study should analyze the area, rather than be designed to impose generalized assumptions on all areas. A competitive analysis within the market study should be prepared along similar lines: The market study should involve analysis of specific competitive forces rather than upon generalized observations about the nature of competition.

How can you determine whether a particular consulting firm uses boilerplate assumptions or actually goes into the field and studies the market? One effective method is to ask to see copies of recent market studies and to compare them. Since many such studies are publicly available and not proprietary (such as studies prepared for government program clients), a consulting firm should be willing and able to provide copies of recent market studies.

## **THE VALUE OF THE FEASIBILITY STUDY**

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The market study is intended to examine conditions of the local market and to demonstrate, by way of compelling supply and demand factors, that the development proposal is justified. In comparison, a feasibility study questions the financial aspects of the proposed development—tax features, cash flow, and likely profit or loss—in order to show potential lenders (or equity partners) that the numbers will work.

While the question of feasibility may be largely financial, it is more than an accounting exercise. The typical accounting revenue forecast, cost and expense budget, and cash flow projection is limited to documenting possible outcomes; the feasibility study, in fact, is far more. It is financial in nature, but it should be compelling beyond what the numbers reveal. A lender reviewing a feasibility study should be able to conclude that the *risk* of financing the

project is acceptable. *Feasibility* should not translate to an attempt to show that there are no risks; a lender or potential equity partner would not accept such a premise, and, under any standards, such a claim would not be supportable. However, the question of risk is going to be on the minds of anyone approached by developers for financing or investment purposes.

Feasibility, in its most reasonable definition, is part budget and part disclosure document. It is properly treated as part of a test of the financial potential, risk, and financing required. All of this, which is part of the *due diligence* process, is aimed at testing the assumptions underlying the project. Part of that process—and a crucial part for the lender or the investor—is identifying risk. This risk may come not only in the most obvious forms of net loss or negative cash flow. In some instances, a far more troubling risk may be the possibility that initial financing will not be adequate to complete the project.

The feasibility study presents a pro-forma version of what is expected to occur during the acquisition, construction, completion, tenancy, and eventual sale of the project. What happens if initial financing or equity investment is not enough to complete these steps? Where will additional funding be acquired? Of course, the fact that the study attempts to show how currently known facts *might* look in the future—in other words, a forecast—should be accepted as one of many possible outcomes. We should be aware of an important distinction:

*A forecast is not a prediction. Predictions require a leap in logic and are not necessarily based on known or knowable current information. A prediction does not attempt to show how the future relates to the present; it is stated as a fact, independent of and unrelated to what currently exists. A forecast, on the other hand, logically links current information with events that are expected to occur. In a forecast the future is not unrelated to the world as it currently exists or will exist; rather, current and future events are viewed as inexorably linked in some logical way.*<sup>13</sup>

The difference between these two is central to the theme. Consider, for example, the point of view of the people who are asked to bring money to the table—lenders or investors. Because the initial financing is the basis for identifying potential return to investors (or cash flow to lenders), if that financing is inadequate, it presents a very serious dilemma. More financing will be necessary if the initial lender or investor is to profit; however, the assumptions all change if and when additional funding will be needed. With this risk in mind, the feasibility study has to address the financial risk in very comprehensive terms.

As a planning document, the feasibility study serves as a risk disclosure summary within the due diligence process. It should follow the market study. Clearly, disclosure has to be based on market assumptions, so a feasibility study cannot precede a test of the market itself. In the market study, the big question is, Does it make sense in this market to proceed, given site attributes, supply and demand, and competitive realities? In comparison, the feasibility study should ask the questions, Can we *afford* to build the project as originally conceived, or do we need to examine costs with market and financial attributes in mind?

The market study indicates how the project should be completed in terms of improvement size and scope (thus, cost). So the assumptions that go into the feasibility study are based on the market study. That is the entire assumption base, in fact, for studying risks and determining whether or not a lender can reasonably expect timely payments or an investor can expect a return and, ultimately, a profit.

If a developer prepares an in-house market study and feasibility study and then goes forward to find financing, it would be normal for the picture to be optimistic. And many development firms do, in fact, prepare their market and business planning documents on their own. However, the real test of feasibility is achieved when an outside, independent consultant looks at the same questions objectively. As long as the developer pays the bill, we may expect a degree of bias and that is unavoidable. However, an outside consultant should adhere to certain standards and that is an important feature of the independent feasibility study. An appraisal firm may offer market and feasibility services but may lack the accounting skills to prepare a comprehensive cash flow analysis; their emphasis would likely be restricted to cost/value questions. An appraisal firm with a qualified real estate department that specializes in feasibility studies or a consulting firm with demonstrated experience in preparing feasibility studies, may be the best source for preparation of this feasibility study. A word of caution, however, is offered by a principal in one such organization:

*Once you have identified qualified feasibility consultants, there are other factors that need to be weighed in making the selection. The most important factor is whether or not the chemistry is right and the match is a compatible one. This doesn't mean hiring a firm that will always agree with you. It means hiring people who have the integrity to tell the truth as they see it, and at the same time work with the people in your organization in a team effort that is not adversarial in nature. You must feel that you can trust the judgment of the feasibility consultant that you hire, without feeling that you can't challenge their interpretation of the data gathered.<sup>14</sup>*

The feasibility study is most effective when it includes three key features. First, the pro-forma number crunching has to be based on realistic underlying assumptions about financing, costs and rents, and these assumptions have to be critically examined to ensure that they are fair and accurate. Second, the assumptions used in the feasibility study must be an outgrowth of the market study. Why? Because “recommendations regarding overall project size, unit sizes and mix will drive the overall project cost as reflected in the development budget.”<sup>15</sup> Third, a feasibility study should include a series of metrics so that the reader can better understand the cash flow statement. This could include time value of money calculations such as the Internal Rate of Return (IRR) or Present Value calculations. Other metrics that examine return for both investor and lender should be examined (such as cash-on-cash on both leveraged and unleveraged bases; loan-to-value; and debt service coverage ratios). Finally, a competent analyst will include sensitivity analyses that show how small changes in underlying variables (i.e., capitalization rate) may result in large changes in project value.

Feasibility cannot be studied in a vacuum but should serve as an outgrowth of competitive analysis as well as an understanding of supply and demand locally; if the market study shapes the development as it should, then the feasibility study shapes the financial questions in a meaningful way, including risk assessment as well as acquisition and development cost levels and cash flow.

One possible outcome of the feasibility study is the conclusion that, in fact, the project as originally conceived does not work out financially. If the investment cost is too high based on potential cash flow, the conclusion may be that the whole project will have to be scaled back. In the most extreme case, the idea may have to be abandoned and the land used for other projects (or if land has not yet been acquired, the whole project would be abandoned). In those instances, it is far less expensive to pay the cost of a market study and a feasibility study, than it would be to attempt to finance the project. The cost of proceeding when the numbers do not work would be far greater for all concerned.

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## **WHO USES MARKET ANALYSIS?**

Should market analysis be performed only as a means for obtaining financing? The market study and feasibility study are essential for raising money for a project, but is that the end of the process?

In fact, market analysis and the output obtained from it are valuable

planning documents. These can and should be utilized throughout the project by architect, engineer, and the project planning team. In developing the raw material, the individual or firm preparing a study considers population, income, employment trends, commuting and traffic patterns, and more. But the market and feasibility studies should evolve beyond a summary of raw data if they are to be effective. Many ineffective reports end up gathering dust in the project manager's office, because they are not designed as action tools. Thus, the cost and effort that go into market analysis may be passively organized and presented, so that no meaningful use will be made of it. As an alternative, the document may be designed to provide vision and guidance to the many participants in making the project a reality.

A lot of emphasis is placed on *marketability analysis* of a project, either in terms of rental cash flow or—if the developed property is to be sold—how to maximize market value. But marketability analysis is only a small part of the larger concept of *market analysis*. The latter is effective when it includes the elements of the market study and feasibility study; but it becomes exceptionally effective when the information and conclusions are presented in a way that provides the project vision that is so important. Elements of that vision include community involvement along with planning at the municipal level; innovative design; sensitivity to local concerns; and the feasibility of the project in every way and not solely in terms of financial outcome.

The utilization of market analysis is so critical to a project's acceptance locally because no two projects are the same. Any attempt to use a cookie cutter method of developing projects is certain to meet with resistance. Variation in style, site planning, and price range should be based on a list of local attributes. These include citizen involvement and/or resistance to the development, local political mood, and the far more tangible site-specific attributes: topography, proximity to traffic patterns, and surrounding zoning, for example.

In considering the many diverse uses of market analysis, the most effective studies are those that meet the needs and answer the questions of each of the interested parties: lenders or equity partners (capital formation), developers or contractors (project generation), architects and designers (those responsible for creating aesthetic qualities as well as meeting local code requirements within the site), marketing interests or users (buyers or sellers, landowners and tenants, or consumers), and maintenance interests (property managers).

It is useful to review the end-user on a matrix of objectives, as shown in Table 1.1.

**TABLE 1.1** Market Analysis Users and Their Objectives

Objectives	Lenders Partners	Developers Builders	Architects Designers	Buyers/ Sellers	Property Managers
Promotion and initial marketing efforts.		x			
Communication with local politicians and decision makers for project approval; outreach to land use and community groups.		x	x		
Employment and relocation of corporate tenants/buyers.		x	x	x	
Investment strategies or financing efforts.	x	x			
Project planning and design, long-term.	x	x	x		
Cash flow projections and financial analysis for investor profitability and lender risk assessment.	x	x	x	x	
Due diligence, multiple levels of review.	x	x	x	x	
Management of completed projects—tenant matters and maintenance.					x

**THE GOOD AND THE BAD ON STUDIES**

The analyst needs to remember who usually commissions the market study: the developer. Do not confuse the market study or feasibility study with the more independent and objective appraisal, for example. Some guidelines:

- *The analyst must remain objective.* There is nothing wrong with a study concluding that the site is not great and/or hard to build on.

- *Take caution if and when the developer's objectives are not clearly defined.* The analyst cannot be expected to know the purpose of the study without a clear definition.
- *The drive for profits by the consulting company blurs objectivity.* Be wary of the consultant that produces a glowing report promising high profits, but that glazes over the risk.
- *The study should be performed as a team.* No one person should be expected to produce an objective summary of all of the market and feasibility issues. The team not only assigns work to members based on expertise; it also provides a good checks and balances system ensuring overall objectivity.
- *Many projects suffer from fragmented development planning.* In all too many instances, the planning phase is finished before anyone figures out what the demand is. The process cannot be broken up and performed piecemeal. It has to move forward in an intelligent way. As the saying goes, Don't put the cart of desired results before the horse of as yet unknown demand.
- *Lack of strong personnel damages the process of market analysis.* A lot of damage can be done by a staff that is afraid to give the boss bad news, lose a profitable client, or fear sounding negative. Telling the truth based on a well-researched report and fully documented findings provides integrity to the process.

The analyst should also make note of 10 common weaknesses in the market study process:

1. *Inadequate analysis of indirect economic forces, such as environmental, social, and political.* It may be possible to build the project, but what is the community's stance on development? Research the political issues locally, in the early stages.
2. *Using best-case numbers.* It is far more valuable and realistic—from marketing as well as fiscal points of view—to use a range of possible outcomes: best, moderate, and worst-case.
3. *Ignoring the importance of sensitivity analysis.* Some numbers, if tweaked a little bit, can dramatically change the projections. Cap rate is a typical one. When dealing with highly sensitive numbers or exceptionally long-term projections, a sensitivity analysis is appropriate—a good place to insert a worst-case analysis.
4. *Underestimation of infrastructure cost.* Among the more expensive possible problems is the failure to realistically appraise the operational costs of the project. Remember, the devil is in the details. But the details are expensive.



5. *Inadequate analysis, particularly of cash flow.* To many analysts, cash flow is too elusive to fully document. This is an error. Carefully document all of your assumptions, so that if and when the numbers start to vary, you can go back and identify the cause. You will need to pin down the variance specifically: as related to market data, tax calculations, debt service, for example.
6. *Excessive use of statistics without any hard, realistic conclusions.* Numbers are great, but only to the extent that they lead you somewhere. Avoid the temptation to replace difficult conclusions with confusing numbers and test runs using estimates only.
7. *Failure to edit data properly.* When reports depend on irrelevant data, how do we find the relevant parts? Market data is hard to get. So when you have limited data, be honest about it. The disclosure of these limitations is far more valuable than the use of numbers that simply do not help. At least then, the reader can ascertain what the situation is. A lack of clarity increases the risk; and if nothing else, the analyst's job is to highlight where those risks lie.
8. *Conclusions drawn on numbers but lacking consumer surveys.* Such surveys may be expensive and time-consuming, but they are often invaluable in what they reveal.
9. *Overvaluation of land.* The method you use to set value of land versus improvements will affect all subsequent ratios and financial tests—for lenders and investors, not to mention potential tenants or buyers. Depend on appraisal documents to set a fair value, and avoid the temptation to alter the numbers.
10. *A failure to critically assess management.* Who is the development team? What is their experience? Even the best market analysis is useless unless management knows how to make it work. This problem may be more relevant to the developer than to the analyst, who has no direct power to make changes. But as a part of the analysis, it does not hurt to emphasize the importance of professional management as a linchpin of a project's success.

In Chapter 2, we take these concepts to the next step and provide you with the means to put analysis to work to make the project succeed.

## Using Analysis Effectively

*We may analyze markets using theories alone; however, we make these analyses powerful tools for decision-making only when we are able to express our findings in practical terms. This chapter provides an overview of the analytical process. It explains how analysis becomes an integral part of your business plan and its underlying assumptions; how the scientific method is applied to the study of real estate markets; and how to employ facts in the context of three distinct versions of real estate supply and demand.*

**T**he theory of market analysis is a starting point in our quest for information. However, once we have mastered the theories—meaning we at least know what questions need to be asked—a more challenging concept is how to make that information useful and practical.

How do we *convert* market analysis into forms of action?

### **FACTORS AFFECTING MARKET ANALYSIS— BEYOND THE NUMBERS**

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The market study and feasibility study may represent typical documents as reflections of a properly completed market analysis process. However, the mere presentation of fact is not enough. Just as accountants may present financial statements as rows and columns of numbers, those statements become most valuable when the accountant also explains what those numbers reveal. In real estate analysis, the same rule applies. There are several important differences, however, between specific real

estate analysis and the more universal interpretation of financial results, including:

1. *Local market variables.* Real estate trends cannot be studied on a national or even regional basis. Local trends—those trends in the immediate vicinity—are all that really matter. Unlike most other forms of market and financial analysis, real estate analysis is, indeed, highly local in nature.
2. *Site-specific attributes.* The nature of a site itself also affects the methods you employ in translating market analysis. Two sites of identical size located next to each other may have vastly different potential due to attributes. For example, site A may be visible from an interstate, have a flat topography, and good drainage. Site B may be on a slope with a tendency for partial flooding and the need for improved drainage, and be invisible from the interstate or other well-traveled roads. Clearly, these two sites are *not* comparable in terms of market potential.
3. *Current market economic conditions.* If your market analysis was completed six months ago, the question of whether it remains accurate today must be raised. This is a chronic and recurring problem in real estate market analysis. Moving a development from concept to completion is a long-term venture, but current economic conditions will change during that process. This is one of many risk elements that have to be considered by developers and builders, lenders or investors, and end-users. If a robust market disappears by the time the project is completed, those anchor tenants who signed long-term leases, the lenders and venture capital investors, and the developer and builder, will all be faced with the unpleasant possibility that the project no longer passes the basic test of demand in the current market. Thus, any study of current market conditions needs not only to consider the current snapshot, but also to attempt to judge the longer-term trend.
4. *Ever-shifting demographics.* What happens to a residential development concept if the largest employer in town closes shop and moves elsewhere? What happens if an area suffering high unemployment suddenly finds itself the site of a major new employer? Clearly, these changes in employment would be among many possible factors that would change local demographic factors. People relocate to follow employment, perhaps more so than they move to escape high-crime areas. Today's demographic trends may shift unexpectedly if and when other factors—notably economic—change in significant ways.
5. *Developer/owner imposed restrictions.* Often overlooked in the market analysis is the developer's own restrictions. Some developers have

realized that investing in exceptional design, working closely with local citizens and government interests, and striving to *improve* local conditions provide great flexibility and creativity to the company or individual preparing market and feasibility studies. However, some other developers take a bare bones approach and are not willing to spend more up-front capital than required minimally. Their design tends to be flat and unimaginative; communication locally is poor and often leads to (and in some cases, creates) antidevelopment sentiment; and successful developers have to maintain at least an interest in social and public policy, if for no other reason than that it can boost profits.

6. *Financing limitations from lenders or equity partners.* Few projects are initiated with the mandate, “Money is no object.” Invariably, lenders will not only specify a limited risk level they are willing to assume (and that is almost always less than 100 percent of the project’s requirements). Lenders will also demand ongoing accountability in project completion and scheduling. Equity partners will impose similar restrictions, concerned not only with project costs and scheduling, but equally with cash flow and profitability after completion.
7. *Design elements and their influence on outcome.* The marketability of a project will depend to a significant degree on the design itself. A plain, minimally compliant design may pass government standards but will not add to the ambient nature of the surrounding area. Exceptional design is more than how buildings and roads are placed; it implies innovative architectural elements, heating and cooling systems, and environmental decisions as well. Investment in exceptional design can create dividends in future market value; thus, market analysis should take into account the design philosophy of the developer and architect. The key is to focus on architecture as not just making a building pretty, but rather to focus on how design can boost the operational efficiency of a building on behalf of its tenants.
8. *Local support of or opposition to a project.* The question of local attitudes toward new development cannot be ignored in the feasibility of a project. Because financial outcome depends on careful scheduling, it is critical to be aware of the effects of local opposition and the potential for project delays. Developers can take many steps to prevent or minimize opposition through preemptive steps like early communication. Most opposition movements thrive in information vacuums, so the key to reducing opposition is to make contact and maintain it with citizen groups, agencies, and elected officials. Other developers choose to take a silent approach and try to drive the process through quickly to minimize dissent.

## THE ANALYTICAL PROCESS

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There is an all too human tendency to begin with an assumed conclusion, and then to seek out facts that support that conclusion. However, this tendency can also serve as a trap. One possible way to view the analytical process is to seek the truth, even if the truth contradicts what we expect to find.

The *scientific method* is a process employed in analysis, with the purpose of finding an accurate and unbiased answer to a question or to a series of questions. The scientist, in testing an initial hypothesis, is satisfied with results because, at the very least, a negative outcome eliminates one possibility. When Thomas Edison stated that he had tried more than 2,000 ideas before finding a working carbonized filament for the light bulb, he was asked, “Does that mean you failed 2,000 times?” He replied, “No, it means that I found 2,000 ways to *not* make the light bulb work.”

There are four specific steps to the scientific method, designed to not only test ideas but also to reliably eliminate possible outcomes that do not work. These steps are:

1. *Observation.* In the case of market analysis, an initial observation may be an apparent growth in the demand for market-rate housing.
2. *Hypothesis.* The developer may begin with the belief that it will be profitable to acquire land, build houses, and sell them at a profit.
3. *Prediction.* The developer hires experts to perform market and feasibility studies.
4. *Testing.* Objective tests are performed to ensure the validity of the previous three steps. For example, cash flow projections may prove that the idea has merit; it might also prove that the idea as conceived will not work.

### Valuable Resource

For information about the scientific method, check the following web sites:

[http://teacher.nslr.rochester.edu/phy\\_labs/AppendixE/AppendixE.html](http://teacher.nslr.rochester.edu/phy_labs/AppendixE/AppendixE.html)  
<http://www.selu.edu/Academics/Education/EDF600/Mod3/>  
[http://koning.ecsu.ctstateu.edu/Plants\\_Human/scimeth.html](http://koning.ecsu.ctstateu.edu/Plants_Human/scimeth.html)

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In the performance of these steps, it is all too easy to derail the scientific method. If a developer views market analysis as a tool for obtaining financing—in other words, as a means to marketing the idea and nothing else—then the validity of conclusions may be in jeopardy. If the mandate given to the consultant is to prove a specific conclusion, then the outcome has been predetermined and will not be accurate.

You need to ensure that the hypothesis is valid and that the right types of tests are performed. Otherwise, the outcome will not be reliable. In the example of a market study for real estate, possible flaws in the hypothesis may emerge from the study, including:

- *An inaccurate picture of demand.* In a rental housing project such as apartment buildings, developers may proceed based on an analysis of waiting lists. However, these are not exclusively made up of people who lack housing; these lists may include people currently residing in other rental housing who desire to relocate. Thus, demand assumptions based on the existence of waiting lists could be highly inaccurate. The construction of new rental housing units may serve to increase vacancies in existing housing. In fact, real market demand could be far lower than the market study concludes. This is difficult to know because many agencies, such as local housing authorities, keep their waiting lists confidential; and location services often inflate both supply and demand sides to create the illusion of more activity on the market. Given these problems in quantifying the real level of supply and demand, it is impossible to discover how many people on those lists currently have housing and would simply move, versus the unknown number of people who want to relocate in the area or section of town, but cannot find apartments.
- *A less than accurate picture of the market area.* In the case of residential projects, the big question involves source of tenants. Where will residents come from and where do they live now? If, in order to justify the construction of additional units, the assumed market area is extended far from the site, it becomes increasingly unreliable.
- *Misunderstood employment statistics.* A study of local employment and trends in employment is easily misrepresented or misunderstood. For example, the major employer in an area may be downsizing, meaning that in the future there will be fewer jobs. So even though this employer provides a lot of jobs locally, the level of *new* jobs may be more dismal than an uninformed or biased study would reveal. Another reality that may affect results is seasonal employment. If an area depends on tourism during warmer months, what happens in the off-season? What may appear to be a robust

economy with low unemployment may, in practice, be that way only during half the year.

These possible areas affecting the reliability of the market study—and possibly other conclusions as well—demonstrate that the scientific method is a useful tool for avoiding inaccurate conclusions in the study of supply and demand. On this topic, one writer has cautioned that

*It is easy sometimes to focus on supply, because you go out and count the trees—or homes or office buildings. But how does the supply of space in existence, under construction, planned, or otherwise expected to come on line correlate with historical, current, and forecast levels of demand? Are any apparent variables explainable? . . . it is easy to focus on supply. Demand is much more difficult to determine.<sup>1</sup>*

Assumptions or predictions based on artificial or misread demand for rental units leads to exaggeration on the demand side—one of the great problems in attempting to justify demand assumptions when, in fact, only the supply side has been identified and, of course, it also may have been exaggerated. Lacking strong assumptions on the demand side, it is all too easy to also misread local indicators.

The testing phase will be flawed if, in fact, the wrong data is tested. The developer and/or the consultant preparing the market study may interview the head of a housing authority for example, who confirms the premise that demand for new rental housing is high. Local politicians may voice similar beliefs. Ultimately, though, the testing will be flawed if supply is adequate for the real level of demand, and demand itself is inflated through (1) duplication of names on several lists, (2) names not removed when people find housing or move away, or (3) names on waiting lists of people occupying units who are part of the current supply. In cases where the developer wants a project to proceed, the incentive may be to maximize the demand for a particular project. As long as the developer is in control of how the market study is prepared and presented, the testing will be questioned.

The same problems with methodology would extend to the feasibility study. Any relatively skilled accountant can manipulate the numbers to make assumptions work out to reflect future positive cash flow. But again, if the underlying assumptions are not accurate, the financial projections will not be accurate, either.

A developer approaching potential lenders or equity partners—not to mention agencies granting tax credits, for example—may dispel suspicion

by subjecting their proposal to a completely neutral consultant. By allowing a lender or equity partner to select a consulting firm that includes professional accounting and appraisers, the opportunity to create a desired outcome will be limited. While the majority of developers would be willing to subject a sound marketing idea to independent analysis, everyone will want to be aware that the minority may desire to use the system—including local planners and citizens, tax incentive programs, and, of course, lenders or investors—to create a desired outcome rather than to study the initial assumptions objectively.

## MARKET ANALYSIS AND BUSINESS PLANNING

In some respects, the combined market and feasibility studies serve the same purpose as the more generalized *business plan*. However, there are important differences as well, notably when real estate is involved.

A business plan usually combines detailed budgets and financial assumptions with an extended-period marketing plan. This normally is found in business environments where the product or service is well-understood. In real estate, the market and feasibility studies begin with the following assumptions:

- *The market is well-understood.* The business plan usually is aimed at moving product or service to a well-understood market. A food manufacturer sells to grocery store chains and identifies the shopper as its primary market. Financial service firms target families needing investment and insurance advice. In the case of real estate, the market may be more elusive, but its elements remain constant. The end-user *and* the all-important physical location of that end-user will directly impact how a project is developed. We need to begin on an important basic theme:

*Assumption: In real estate, we know who constitutes our market, and where that market is located.*

- *The product itself may also be a variable.* If we begin with a project concept, its very feasibility will be determined by the market study, followed by a test of the financial assumptions. We may discover, in fact, that the original concept needs modification, as a factor of market de-



mand levels and costs. In the business plan, the product does not vary, but the market does. In the real estate market analysis process, both market *and* product have to be treated as potential variables. A second theme emerges:

*Assumption: Our concept of the real estate product is determined not by the original idea as much as by the outcome of critical market and financial analysis.*

- *Market factors, either economic or demographic, may change.* In the business plan, a starting point often grows from a well-understood, unchanging economic and demographic data set. For example, a company that runs theme parks understands the demographic it serves: families with small children. It also knows that its own financial projections have to be based on national economic conditions. In comparison, the question of demographics is not specific in real estate developments. That depends on other *local* factors such as employment trends and housing costs. Economics also shift, at times during the project completion itself. Economic and demographic factors, by definition, are cyclical and trend-based and are not stationary. This is easily overlooked but an important distinction to keep in mind. The third important theme to remember in market analysis is:

*Assumption: Market factors affecting both competitive and financial feasibility are always variables and have to be treated as cyclical phenomena.*

We cannot treat real estate market analysis in an identical manner as the business plan. Another way to make the distinction is from the developer's own perspective. The developer's market analysis is specific to a project and site, the local market and current trends, and the financing prospects and limitations. However, that developer's own business plan encompasses the entire business and marketing theme, objectives and standards, and profitability.

The business plan is an essential self-defining document for the business venture. The real estate marketing analysis refers to a specific project. The

business plan defines (among other matters) the owner's objectives. For example, a particular developer, architect, or builder specializing in upper-income markets may establish a strong priority for creating projects of innovative design and exceptional artistic quality. Another firm might not even discuss the issue of quality, preferring to establish profit goals only. Low quality is acceptable if appropriate to a particular project. If a developer is building low-income housing units, the kitchens will not include marble countertops. While we do not suggest that the importance of business planning should be ignored, we emphasize that it is not the same as market analysis. The consideration of a specific site and its market potential is part of the specific job, just as a builder lays a foundation for a building, and just as a writer outlines chapters for a book and defines the potential reader as a starting point. Developers, architects, designers, builders, and lenders or investors, all need the exact level of definition for both markets and financial projections that are derived from market analysis.

## **THE KEYS TO MARKET ANALYSIS: SUPPLY AND DEMAND**

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At the heart of the business plan are budgets, goals, and market definitions. This is a well-understood concept, and the process of preparing and finalizing a business plan may invigorate management and employees. At the heart of market analysis is the dominant economic consideration: supply and demand

While the premise of supply and demand in a free economy is well-known as a basic premise, the application of these forces in real estate market analysis is more complex. In fact, market analysis needs to consider three different forms of supply and demand: These are in relation to the obvious market form (supply and demand for real estate); the associated rental supply and demand (tenant demand versus rental supply); and capital (financing and associated interest rates or equity capital from investors).

### **Real Estate Supply and Demand**

The most apparent and best-known form of supply and demand is reflected in the market value of real estate. The theory is not complex. The higher the supply of properties on the market of a specific type (single-family residential, retail, or industrial, for example), the softer the demand; and the higher the number of buyers, the higher the demand. These factors and the trends they follow determine market value. When properties are in short supply—meaning there are more buyers than sellers—prices are forced upward. And

when there are an excess of properties—meaning there are more sellers than buyers—prices level out and may even fall.

While most people may be aware of real estate supply and demand basics, they may not appreciate the *trends* that underlie and are reflected by these same forces. A lot of information is presented in the press and through industry associations on a national level; but in fact, all real estate trends are strictly local. We cannot judge the market in New York City by the same standards as the market in Sioux Falls, South Dakota. Every aspect of the market, attributes, economic and demographic trends, and competition are dissimilar so any attempt at comparison is invalid. However, if we review real estate supply and demand on a national level, we see only an average; such averages do not reveal any meaningful information about what is happening in a specific city or town or from one neighborhood to another.

Some analysts make the mistake of assuming that real estate trends can be tracked through a study of national averages, overlooking the local realities of real estate prices; or of trying to associate real estate valuation with inflation, as expressed by the Consumer Price Index (CPI). Housing, in fact, is not included in the CPI. “Price level changes for items such as tomatoes and video recorders have very little to do with changes in real estate prices,” one analyst reminds us, and “price levels should not be viewed as independent of a specific market.”<sup>2</sup>

It is fair to observe that real estate trends vary from one location to another, whether we are discussing towns, cities, counties, or metropolitan areas. But the local nature of real estate is even more specific. The price of a home on a busy street will differ from an identical home one block away on a quieter street. The location of a regional mall near an exit on Interstate 35 just north of Austin, Texas, will have attributes far different from those for a strip mall in the southern part of Sacramento, California. The attributes, specific location, age and quality, and other competitive factors make it impossible to compare two dissimilar properties when their areas have nothing in common.

Supply and demand in real estate—to the extent that investment value is affected—must be reviewed not on any national average basis, but on a local basis. Even checking the housing trends on a regional basis are less than revealing. For example, the Northeast encompasses areas including rural Pennsylvania as well as Manhattan’s Upper East Side. The West includes the Yuma desert *and* downtown Phoenix, vastly dissimilar markets. The reports on these regional markets are merely regional averages; to judge your local market accurately, it is imperative that such averages not be used; the local market forces are all that matter. National and regional

## **Valuable Resources**

The National Association of Realtors ([www.realtor.org](http://www.realtor.org)) compiles and publishes housing data based on regional studies. The regions as defined by the NAR include:

*Northeast:* Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, and Vermont.

*Midwest:* Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, and Wisconsin.

*South:* Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and West Virginia.

*West:* Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

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averages may be useful for comparative analysis between a specific site and those averages; but regional and national averages are not the market in any single city, town, county, or neighborhood.

## **Rental Supply and Demand**

While the well-known market supply and demand dominates the attention of most investors, an equally important variation is the market for rentals. When the number of available rentals exceeds the number of renters, market rents decline; and when the number of renters exceeds available rentals, market rents rise.

This market is directly observed through trends in occupancy levels. When occupancy is consistently high—97 percent or 98 percent, for example—it indicates that the demand for rentals is high. When occupancy slips and begins to trend downward, it indicates that an excess of rentals has occurred. In some markets, these trends are seasonal and should be observed as such. For example, if a large portion of the local population consists of college students, of whom the majority are invariably renters, the supply and demand should be expected to reflect changes tied directly to the

school schedule. If the school does not offer a complete summer curriculum, vacancies will rise and the market will see reduced demand for the season. However, once school begins anew, that trend will immediately turn around. As with all trend analysis, seasonal variation should be taken into account to ensure that the conclusions drawn are accurate.

Cause and effect in rental occupancy rates reflects trends in development. If the area experiences exceptionally high volume of apartment construction, the supply and demand interaction will be affected as soon as units become available. Historically, development tends to outpace demand, so the market is continually moving back and forth between supply and demand. Short-term trends are chaotic and it is often difficult to spot trends without a broader view. However, from a landlord's point of view, whether involved with residential or commercial properties, the direction of the trend often defines cash flow success or failure. In the course of market analysis, identifying the longer-term trend and anticipating the three- to five-year *likely* supply and demand realities is an important step.

It is also essential to recognize that real estate supply and demand (reflected in the prices of properties, the time they remain on the market, and comparisons between listed price and final sales price) is *not* always the same as the rental market's supply and demand. Much depends on the price level for properties and market rent levels. It is entirely possible that some markets will experience strong market demand but weak rental demand. For example, in a predominantly retirement-aged community, the majority of people may own their homes but, due to the lack of jobs, few younger individuals and families are likely to be found in the community. Conversely, it is also possible to witness a market with very strong rental demand and at the same time, a weakness in residential property prices. This may occur in areas with large student populations but relatively few jobs. Medium-sized cities in the Midwest may meet this definition. A large student population means higher than average rental demand for the population level, but at the same time there may be little requirement for owner-occupied housing.

This disparity further demonstrates why it is essential to study every local market individually. Formulas do not work everywhere. For example, if a market analysis were to conclude that shopping trends represent a specific factor *per capita*, how might that conclusion be different in dissimilar markets? A county located near the Canadian border may be inaccurately gauged based solely on local population. A largely student population is going to be vastly different from retirement-aged households. A city with 190,000 population in a primarily agricultural area of the country will not share the same demographic attributes (thus, rental demand requirements)

as a city of the same size located within commute distance of a major metropolitan region. Consider the following population examples:<sup>3</sup>

<b>City</b>	<b>Population (2004)</b>
Des Moines, IA	193,333
Lincoln, NE	192,722
Greensboro, NC	191,591
Montgomery, AL	190,831
Madison, WI	190,816
Grand Rapids, MI	189,673
Yonkers, NY	188,185

Residents of Yonkers, New York, may easily commute to Manhattan, the largest city in the United States. However, those living in Lincoln, Nebraska, or Madison, Wisconsin, would experience far different employment prospects, not to mention property values, surrounding population trends, and other important considerations. All of these cities share approximately the same population indicator, but that is where the similarities end. We would further expect that the rental market supply and demand for these cities would not be comparable; this points out the necessity for reviewing a town or city individually, rather than employing formula-based conclusions. Ratio analysis works in accounting, where universally agreed upon standards apply. But in the rental market, there are no universal standards for market rates, trends, or relative health within the market.

### **Capital Supply and Demand**

The third form of supply and demand is that for money, either debt or equity. Debt financing—from a variety of potential conventional or private lenders—is available at any time assuming that the developer is able and willing to pay the going interest rate. And of course, rates—like all supply and demand items—are cyclical. The span of these cycles may vary considerably. For example, over an 11-year period from 1994 through 2004, the prime rate changed only one percent (from 6.00 percent on January 1, 1994, to 5.00 percent on December 1, 2004). However, in the interim, rates were as high as 9.50 percent and as low as 4.00 percent, a considerable range. While real estate rates are normally tied not to prime, but to Treasury debt rates, we use this as an example. The prime rate tracks other rates and reflects changes from federal funds rates to Treasury securities, then to prime rate and above.

Table 2.1 summarizes the prime rate during this period as of the first of each month. Note the December 1 rate, for example. By the end of 1994, and through to the end of 2000, the prime rate was supported for the most part at about 8.00 percent and rose to 9.50 percent by 2000. However, in 2001, a shift began in the second quarter, with rates falling rapidly by the end of the year and remaining at about 5.00 percent for the two years following.

The 11-year cycle using prime rates as of December 1 for each of these years is summarized in Figure 2.1.

The concept that “money is always available” is only partially true. As long as you are willing to pay a going rate for mortgages, which of course, vary with changes in the long-term debt market such as U.S. Treasury bonds, it is certainly possible to find financing for a project. A more revealing question, though, is whether the debt service on financing is affordable. If a project’s cash flow is not adequate to cover the debt service, then in effect, the debt financing is not available. If interest rates for mortgage financing rise, but market competitive forces do not, then cash flow is squeezed, perhaps to the point that the project is no longer feasible.

Within this same market—for capitalization—there may be equally important but far more subtle supply and demand forces at work for equity financing. Finding venture capital investors or limited partners depends partially on other available real estate investments and partially on tax benefits or restrictions. Until 1986 investors were able to invest in limited partnerships and reduce taxes considerably. With top federal rates at 50 percent, tax incentives were attractive and many tax shelters were designed to exploit the rules.

**TABLE 2.1** Prime Rate History

Date	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004
Jan 1	6.00%	8.50%	8.50%	8.25%	8.50%	7.75%	8.50%	8.50%	4.75%	4.25%	4.00%
Feb 1	6.00	9.00	8.25	8.25	8.50	7.75	8.50	8.50	4.75	4.25	4.00
Mar 1	6.00	9.00	8.25	8.25	8.50	7.75	8.75	8.50	4.75	4.25	4.00
Apr 1	6.25%	9.00%	8.25%	8.50%	8.50%	7.75%	9.00%	8.00%	4.75%	4.25%	4.00%
May 1	6.75	9.00	8.25	8.50	8.50	7.75	9.00	7.50	4.75	4.25	4.00
Jun 1	7.25	9.00	8.25	8.50	8.50	7.75	9.50	7.00	4.75	4.25	4.00
Jul 1	7.25%	9.00%	8.25%	8.50%	8.50%	8.00%	9.50%	6.75%	4.75%	4.00%	4.25%
Aug 1	7.25	8.75	8.25	8.50	8.50	8.00	9.50	6.75	4.75	4.00	4.25
Sep 1	7.75	8.75	8.25	8.50	8.50	8.25	9.50	6.50	4.75	4.00	4.50
Oct 1	7.75%	8.75%	8.25%	8.50%	8.25%	8.25%	9.50%	6.00%	4.75%	4.00%	4.75%
Nov 1	7.75	8.75	8.25	8.50	8.00	8.25	9.50	5.50	4.75	4.00	4.75
Dec 1	8.50	8.75	8.25	8.50	7.75	8.50	9.50	5.00	4.25	4.00	5.00



**FIGURE 2.1** Eleven-Year Summary, December 1 Prime Rate

For example, a five-to-one limited partnership allowed an investor to claim deductions at five times the amount invested. So an individual paying taxes in the 50 percent bracket could invest \$10,000 in a limited partnership and, by way of accelerated depreciation, claim a first-year tax loss of \$50,000, or a loss equal to five times the amount invested. This tax loss reduced the individual's tax liability by \$25,000 (in the 50 percent bracket). So for an investment of \$10,000, liabilities were reduced by \$25,000.

These shelter programs were closed down with the Tax Reform Act of 1986 (known as TRA). Now, investor deductions are limited to at-risk capital (investment plus recourse loans). Furthermore, in a passive investment such as a real estate limited partnership, while real estate professionals live with different rules, for most investors losses cannot be deducted but have to be carried forward and applied against future passive profits.

The current tax incentives for real estate investment are far less attractive than they were in the pretax reform days. However, equity investors may still be interested in placing money into real estate developments when the economic assumptions make sense. In the tax shelter days, the primary concern was for immediate tax benefits; now the numbers have to work in order to attract equity partners.



The competition for equity financing—other developments or pools such as real estate investment trusts (REITs) and mortgage pools, and similar programs—will appeal to investors as long as potential returns are higher or risks are lower. So in the supply and demand for equity capitalization, it is invariably a competitive environment.

## **THE NATURE OF ECONOMIC CONDITIONS**

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In any review of the real estate market—and remembering the three distinct forms of supply and demand—we need to remind ourselves that economic conditions are continually changing. This is easily overlooked. In the stock market, where shares are traded moment to moment, the liquidity is apparent. In real estate, where liquidity is completely lacking in most product forms (exceptions being certain publicly listed conduit investments like REITs), it is easy to forget that the condition of the market is in a state of change.

The tendency to consider current status of supply or demand as more or less permanent may be a fatal flaw in market analysis. If you listen to your local real estate broker, you will likely be told that this is the best time to buy; if you are a seller, the same broker is likely to opine that this is the best time to sell. When we work within a system where our experts are compensated by commissions, we are unlikely to ever be told that the market is weak. In fact, if we already know it is weak, the broker is likely to counterargue that the trend is beginning to turn around!

So when we see today's economic conditions as strong or as weak, we also need to be aware of some related facts, including:

- *The market is in a continual cycle of change.* Today's situation will not last forever; in fact, it may be different next month. Consider the changes in prime rate as demonstrated in Table 2.1. Rates remained at 8.25 percent for the 14 months from February 1, 1996, through March 1, 1997; and at 8.50 percent for 18 months from April 1, 1997, through September 1, 1998. But from the beginning of 2001 to 12 months later, the rate fell 56 percent from 8.50 percent to 4.75 percent. So there is no predictable pattern in supply and demand. The example has ramifications for the trend in Treasury bonds rate, thus the market for financing; but the same uncertainty applies equally to the market and rental versions of supply and demand as well.

- *Today's condition is never unmoving.* The tendency among investors and market analysts is to look at today's economic snapshot and to assume that this condition is permanent. Whether we explicitly believe this or not, the tendency is to draw conclusions on that basis. This is a tendency worth resisting, because the assumption that an economic condition is permanent may lead to errors in analytical assumptions.
- *We must keep the three supply and demand variations in mind.* Any market analysis should be undertaken with independent consideration given to the three forms of supply and demand: for market prices, for rental units, and for financing. If we ignore any of the components of this overall economic analysis, the conclusions will not be reliable. An analysis that finds all three conditions in agreement as to the feasibility of a project is encouraging. The three may act as confirmation points in an economic forecast. However, any opinion as to feasibility may be tempered when the three indicators are not in conformity with one another. The market analysis will be more reliable when the three different markets are critically analyzed together.
- *No one knows for certain the current cyclical direction or timing of the market.* In spite of what you may hear from experts, make a distinction between statements of fact and statements of opinion. Because opinion often is asserted as being factual, it is not always easy to distinguish between the two. But any forward-looking, predictive statement is only opinion. It may be based on experience, comprehensive analysis, and a deep understanding of the many facets of real estate economics; but even so, it is only an opinion. Just as you may rely on opinion only as a means for justifying your own estimates (versus attempting to *prove* that your estimates are correct), it is also important that anyone preparing a market study or a feasibility study makes clear distinctions between reporting between historical fact and projections. The factual record, including past financial history and trends, is most useful to support a premise included in a projection; but it should be made clear where the discussion moves from fact to opinion, if only because anyone reviewing the report may not make that shift automatically.
- *No investment decisions should ever be made under pressure.* If the source of information is a seller or a seller's broker, it is important to be aware of the bias. It is never advisable to make decisions (or to recommend a course of action) until all of the data is gathered, sorted, and studied; and until the analysis itself has been done.

- *In listening to advice or opinion, we should always consider the source.* Most sources of information have a bias. Anyone asking you to buy property or to use services in the development or design of property, has a self-interest in mind. This is human nature, and everyone is a party to the interaction that is involved on the path from concept to feasibility. However, let us not forget that, just as authors try to provide value in order to sell books, the same is true of real estate brokers, designers and architects, engineers, city planners, neighborhood groups, and an infinite line of experts we meet along the way.

## Valuation of Real Estate

*What is a property worth, and why? This chapter presents the principles of valuation that determine market value; basics of appraisal science; and important economic and political trends affecting valuation. Finally, we demonstrate how valuation needs to be viewed on two levels: First, the basic principles of valuation need to be mastered and second, we need to evaluate how an investor actually enters the market with valuation questions in mind.*

**M**arket analysis is a process of sensible observation. By being aware of the factors that affect market value, it becomes possible to accurately identify how those principles apply to a specific property; a group of properties; or to properties sharing *similar* attributes (location, size, age, zoning, square feet, or neighborhood, for example).

Valuation is distinguished via attributes of properties and markets; further clarifications of value are based upon the priorities of the investor or owner, including cash flow and potential rental income tax benefits or limitations, and perceptions about future growth in market value. No one of these valuation criteria are exclusive; they are part of a larger overall analysis of a property's value. As with all market, *value* itself consists partly of what a property is worth today and partly what we believe it will be worth in the future. One definition acknowledges the broad range of meanings, but summarizes the meaning of value nicely:

*The term “value” is often used inaccurately by non-qualified practitioners. It is an abstract word with many meanings . . . In an economic sense, market value has a specific definition—the present worth of future benefits realized from ownership.<sup>1</sup>*

## PRINCIPLES OF REAL ESTATE VALUATION

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We begin with a summary of the major principles that govern valuation. There are 10 primary concepts in this group:

1. *Progression.* This principle relates to one way in which market values rise. Expressed as a statement, progression tells us, “A property’s value may increase due to the existence of similar properties in similar locations, containing greater quality.” The idea that a rising tide lifts all ships applies here. In fact, progression is also expressed by the maxim that you profit in real estate by buying the worst house on a good block.
2. *Regression.* The opposite rule may work as well. A falling tide can lower all ships or, as the regression principle reveals, “A property’s value may decrease due to the existence of similar properties in similar locations, containing lower quality.” So an exceptional house may not appreciate as one would expect if and when other houses—even on the sale block—are outdated, obsolete, or poorly maintained. This concept is closely related to the third principle in real estate valuation, that of conformity.
3. *Conformity.* This concept is, “A property is most likely to appreciate in value along with other, similar properties in the same neighborhood.” So if an investor spends a lot of money to upgrade a house, for example, conformity may limit the appreciation regardless of how the work is performed. This relates to construction materials, age of properties, number of rooms, and overall square footage and style. If the neighborhood consists of 2,000 square feet, three-bedroom, two-bath homes 10 years old, improving property above that standard may not be profitable. Converting a home by adding 500 square feet and changing the internal layout to four bedrooms and three baths could be money poorly spent, based on the principle of conformity.
4. *Substitution.* In real estate, comparison rules the way that valuation trends become established. Thus, progression, regression, and conformity are primary concepts. A variation on this theme is that of substitution. This principle is, “A property’s greatest potential market value is limited by the market value of other, similar properties.” Thus, it would not be realistic to judge market value in a vacuum. Without considering the market value of similar properties located in similar areas, we cannot accurately analyze market value of any property. This theory is easily observed. When two

similar properties are for sale, the lower-priced one will tend to sell first and, as a result, the market value of the remaining property may be lowered.

5. *Change.* This principle tells us, “No condition remains the same indefinitely; change is part of the economic cycle.” Property values are affected by change in several ways. These include local economic and demographic trends, physical age and condition of the property and surrounding properties, character of a neighborhood or city, and natural events like disasters (hurricanes and earthquakes, for example).
6. *Anticipation.* Real estate investors—like those in all markets—are continually estimating the future value of properties. The principle of anticipation may be stated as: “Market value often is affected by expectations about future events.” For example, if an investor believes that a particular area is likely to experience growth in coming years, that would mean property values would rise. The very expectation actually increases demand, and valuation rises as a result. The cause and effect can be more immediate than the time it takes for the cause to occur. If a proposed rezone is in the works, properties in the affected area could experience rise or fall in property value in anticipation of the change.
7. *Contribution.* This principle acknowledges a limitation on growth in market value, notably in the case of improvements. The additional market value one may expect from improving property is not equal to cost, but to the contribution those changes make to actual market value. Thus, in a low-demand market, an improvement may add only \$2,000 to market value even though actual cost was \$5,000. In the case of cosmetic repairs to properties in hot markets, the opposite effect may be seen as well. Contribution tells us, “Improvements add to market value as a factor of current supply and demand, and not necessarily on the basis of actual cost.” The principle of contribution can also be defined as being controlled both by *increasing returns* and by *diminishing returns*. In other words, making improvements to property will cause growth in market value to an extent (increasing returns), but when improvements exceed that level, return on investment begins to fall (diminishing returns).
8. *Plottage.* This principle observes that consistency in ownership of land and zoning or usage, tends to maximize value. The principle states that, “Land values tend to increase when adjacent lots are combined into single ownership and put to a single zoning or use.” This phenomenon is observed when a series of relatively small lots

remain under-developed and are eventually purchased by one person or company and subsequently developed. Each individual would be unable to organize such a development when many owners are involved.

9. *Highest and best use.* Closely related to plottage is the principle that “Real estate valuation is maximized when land is utilized in the best possible way.” Thus, rich farm land should be used to grow crops and land located within sight of an interstate freeway is best used for highway commercial zoning. The same observations apply to all forms of zoning and usage. Real estate valuation is unusual in that sometimes 10 one-acre plots are worth more than one 10-acre plot. An analyst needs to compare land size to proposed land use, and be prepared to adjust valuation based on a site’s variance from the idea.

This means looking at far more than just zoning and its obvious attributes. Zoning is only one aspect, one expert has observed:

*How many times have we seen statements in reports that conclude that the highest and best use of a property is as zoned? Highest and best use, by definition, includes the legal, physical, and economic benefits of ownership, plus social commitments to a community at large.”<sup>2</sup>*

10. *Competition.* The last primary principle of valuation is directly related to the broader concept of supply and demand. The principle of competition states, “Opportunities for profitable investment lead to competition.” This has ramifications for valuation of all properties. A good idea is going to be imitated or duplicated. Thus, as long as demand remains unchanged, the emergence of competing properties will tend to dilute market value for all similar properties.

The 10 principles of valuation are summarized in Table 3.1.

## MEASUREMENTS OF VALUATION

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The principles of valuation are the guiding factors in market analysis; they define how and *why* value rises or falls. They are fundamental. However, an investment in real estate may be valued based on one of several different

**TABLE 3.1** The Ten Principles of Valuation

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*Progression.* A property's value may increase due to the existence of similar properties in similar locations, containing greater quality.

*Regression.* A property's value may decrease due to the existence of similar properties in similar locations, containing lower quality.

*Conformity.* A property is most likely to appreciate in value along with other, similar properties in the same neighborhood.

*Substitution.* A property's greatest potential market value is limited by the market value of other, similar properties.

*Change.* No condition remains the same indefinitely; change is part of the economic cycle.

*Anticipation.* Market value often is affected by expectations about future events.

*Contribution.* Improvements add to market value as a factor of current supply and demand, and not necessarily on the basis of actual cost.

*Plottage.* Land values tend to increase when adjacent lots are combined into single ownership and put to a single zoning or use.

*Highest and best use.* Real estate valuation is maximized when land is utilized in the best possible way.

*Competition.* Opportunities for profitable investment lead to competition.

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measurements in addition to price. Four specific measurements of valuation are worth discussion. These are:

1. *Profitability.* The increase in market value is, of course, the most apparent method of measuring real estate value. In its basic form, real estate value—the price at which buyers and sellers reach a meeting of the minds—is at the core of this discussion. It is the primary means for distinguishing one property from another; from identifying the relative real estate value growing from different zoning and land use; and for spotting and quantifying trends in the market. Virtually everything centers around price and, more specifically, the *change* in price over time, or the price trend.

Just as stock market investors follow market price of stocks, real estate investors also make a number of judgments concerning their market positions based on the all-important price trend. But is that enough? Perhaps emphasis on price alone is flawed because it ignores the equally important question of risk. In the stock market, a highly volatile stock may grow in value quite rapidly but present an exceptionally high risk as



well. Investors saw this phenomenon—often too late—by investing in the dot.com fad a few years ago. Those who put a lot of investment capital in Enron, WorldCom, Tyco, and many other corporations whose bookkeeping practices were questionable, discovered the reality of risk too late, and many lost large sums of money. Does the same caveat apply to real estate?

The market prices of real estate cannot be observed day-to-day or hour-to-hour as they can in the stock market. They can be observed directly only through sales prices and indirectly through asked prices. Even so, the various risk factors unique to an area or a site should be viewed along with price trends. If those trends are surprising in any way, a skeptical interpretation of that may include a question of risk. If land is exceptionally cheap today, might there not be a reason?

Example: A study of local classified ads reveals that as a general rule, empty building lots average \$75,000; however, a few ads offer building lots for about \$20,000. Why? Upon investigation, it is revealed that the typical building lots have essential service hookups nearby, but the lower-priced lots could not be developed unless the owner were to pay to run those utilities. The cost of doing so would add \$50,000 to \$60,000 to the advertised price of the lots. The lower-priced land is not a bargain at all; to purchase land at the advertised price would include the risk that utilities might never be run close to the area.

Price is a good starting point in any market analysis. But valuation contains many additional elements of risk and reward; the current price of any real estate reflects a mix of factors, both advantageous and disadvantageous. It is unlikely that an exceptional bargain can be found without some offsetting factors.

- 2. *Cash flow.* To many investors, cash flow is more important than profits, at least in the immediate future. A simple analysis may reveal that even when growth trends are positive, cash flow may negate the advantage itself. Consider the following summary:

Price of real estate	\$350,000
Down payment	\$ 70,000
Monthly payment, 6.5%, interest only payments	\$ 1,896
Rental income	\$ 3,700
Less: Operating expenses	\$ 2,800
Net operating income	\$ 900
Cash flow after debt service and before taxes	\$ -996
Annual growth in property value (est.)	3%

A basic analysis of this situation reveals that the overall investment will not be profitable. If we accept the annual growth assumption of 3 percent per year, the \$350,000 investment will appreciate by \$10,500 in the first year. However, cash flow for the same full year will be \$-11,952 ( $\$996 \times 12$ ). An argument may be made that an investment such as this is made for tax purposes. It is true that directly managed real estate provides unique tax advantages. But the after-tax cash flow does not work out.

Referring back to the same numbers, even if we assume that the entire monthly payment consists of interest and is deductible (ignoring the fact that principal would not be deductible), do the numbers on an after-tax basis continue to work? Let us also assume that depreciation (a noncash deductible expense) is \$10,909 per month. This is based on a calculation involving residential property, which is depreciated over 27.5 years; and further, we assume that the land in this illustration is worth \$50,000, so the remaining \$300,000 is subject to depreciation (land cannot be depreciated). That would provide an annual depreciation allowance of \$10,909 ( $\$300,000 \div 27.5$ ), or \$909 per month. Now the monthly numbers look like this:

Rental income	\$ 3,700
Less: Operating expenses	<u>-2,800</u>
Net operating income	\$ 900
Interest	-1,896
Depreciation	<u>-909</u>
Taxable income	\$-1,905

If we assume that the effective total federal and state tax rate in this situation is 40 percent (assuming 33 percent federal plus 7 percent state), the monthly loss of \$1,905 would create a reduction in income taxes of \$762 ( $\$1,905 \times 40$  percent). (Incidentally, these calculations may be further adjusted if and when the tax-based net loss exceeds the maximum allowed per year.) Now how does the after-tax cash flow look?

Net operating income	\$ 900
Less: debt service	-1,896
Tax reduction	<u>+ 762</u>
Cash flow after operating expenses and taxes	\$-234

We can conclude that this investment will produce after-tax negative cash flow of \$234 per month, or \$2,808 per year. Returning to the

original assumption that this property grows in value by 3 percent per year, or \$10,500, our cash flow-based market analysis works out—but this analysis is highly optimistic. It assumes that, in fact, the 3 percent annual growth rate will continue to occur; that might not be accurate. It also assumes that the rents will be collected every month without any provision for vacancies. If growth estimates are correct, the compounded effect of 3 percent per year will be far greater than the basic \$10,500 we have used. However, the point to be made here is that the investor needs to be able to afford the monthly outflow for the investment to work.

The study of cash flow as a method of valuation has two specific components. First is the question of whether an investor can *afford* the negative cash flow. Even if the numbers are promising, one would need to be able to continue spending more each month than was generated from rents. If, in fact, those funds are not going to be available, then the proposed investment simply lacks feasibility. The second component involves investment assumptions. If we accept the premise that the investor can afford the negative cash flow, is the net after-tax cash flow *higher* or *lower* than the assumed growth rate of the property? If that growth rate falls short of the after-tax negative cash flow, we again would conclude that the proposed investment lacks basic feasibility. We cannot reasonably expect to profit from investing funds, so why proceed? In general, the concept of buying a property that loses money year after year, but planning to make money in the long run through price appreciation, is unwise.

3. *Relative value of rental income.* A third measurement of valuation is related closely to the cash flow issue, but it involves an additional investment component. Rental income varies based not only on trends in demand for rental units, but also on the basis of location and property condition. The owner of an apartment building may be unwilling to perform routine maintenance, so conditions of the property are poor. As a result, turnover is high and vacancies become a chronic problem. This occurs even when demand is high, because the substandard conditions make the site unappealing. Those who can afford to pay market rates will prefer to do so, rather than live in a substandard apartment.

A buyer of such a property will recognize that the depreciated condition also affects value. Income properties are normally appraised using the *income method* (discussed later in this chapter). Essentially, value is derived from the income of the property. Clearly, an apartment complex with higher than normal vacancies, drawing less than market-rate rents, will appraise below market as well. The current owner may not understand that maintaining such a property is, in fact, a wise in-

vestment, or that the nominal savings accomplished by not spending money to maintain the property creates far lower market value. So the would-be buyer will recognize that the purchase price of such a property would be a smart investment. By upgrading the property, the new owner will be able to increase rents to market-rate levels, and also to reduce vacancies. After that transition is complete, a new appraisal would be likely to reflect a profitable change in market value.

4. *Tax incentives.* Real estate investors have historically acknowledged significant valuation based on tax incentives. In the days prior to the tax reforms enacted in 1986 (which effectively removed multiple write-offs and instituted at-risk rules; restricted passive loss deductions; and reformed depreciation), real estate was a favorite haven for tax avoidance, enabling those in top tax brackets to eliminate liabilities. Since these reforms, those investing in *passive* forms of real estate programs (limited partnerships, for example) can not claim loss deductions except to the extent that they offset passive gains. However, individuals who directly manage their rental income investments are provided benefits not available to other investors.

Those investors who are “actively involved” in management can deduct up to \$25,000 in annual losses on real estate. Meeting this test is not difficult; an owner must be tied to selection of tenants, decisions to buy or sell properties, and maintenance. Even if a landlord hires a management company, meeting this test is a matter of staying in touch and putting in a minimum number of hours per month. To qualify, one also must own at least 10 percent of the property.

An exception applies for what the IRS calls a “real estate person.” This is anyone who generates more than half of his or her business services in real estate; who performs more than 750 hours per year in real estate business; who materially participates in real estate business other than rental income; and who also materially participates in rental income activity.<sup>3</sup>

For the *real estate person*, real estate income is treated as nonpassive, meaning that the level of annual loss deductions is not limited to the \$25,000 maximum otherwise allowed.

Even for those who are not real estate persons, the ability to write off up to \$25,000 per year is significant. For many, the tax benefit spells the difference between positive and negative cash flow, when calculated on an after-tax basis. The deduction is restricted for those with adjusted gross income (AGI) above \$100,000; once that level is reached, the allowable deduction is reduced by 50 cents for every dollar of adjusted gross income. For example, if an individual’s AGI is \$110,000, the allow-

able maximum is reduced to \$20,000 (\$25,000 – 50 percent of \$10,000). Furthermore, the calculation of AGI for the purpose of this reduction is modified from the AGI reported on an individual tax return. However, for those with income below \$100,000, the ability to reduce income by up to \$25,000 is an important feature in valuation; the benefit—representing reduced overall tax liabilities—should be viewed as a tangible benefit of owning rental income.

Making this even more attractive, it is possible to have a positive cash flow from real estate investments and, at the same time, report a net loss for tax purposes. This is possible because real estate investors can deduct depreciation. This expense is a noncash expense, calculated based on the value of the improvements (which is roughly the purchase price minus value of land) and is allowed over a period of years (the recovery period). Depreciation is a complex topic beyond the scope of this book; however, it is an important feature in the calculation of cash flow and profits from real estate, as well as a feature in determining valuation.

A key point is that while depreciation is often confused with the economic life of an asset, it is not the same thing. Most real estate retains its market value long after its depreciable basis has fallen to zero.

### **Investment Features Affecting Valuation**

In determining a broad-based conclusion of valuation for real estate, we must further consider the features of the investment. In any form of investment, it is not reliable to classify a particular selection as good or bad without further analyzing these important features. They are liquidity, leverage, risk, and marketability.

**Liquidity** A comparison between two or more investments is accurate and reliable only when the attributes are comparative as well. Thus, comparing a highly liquid purchase of publicly exchanged stock, to an illiquid long-term real estate purchase, is not truly comparable. Thus, any calculation of return on investment, risk, or other important features would be similarly unreliable. We cannot judge real estate comparatively without being aware of liquidity issues. Direct ownership of real estate is illiquid under three distinct definitions.

**Lack of Secondary Market** Some forms of real estate are illiquid because ownership cannot be easily transferred on an open, public exchange. The stock market is a highly liquid market, but units of limited partnerships, for example, can often be sold at a discount. The secondary market is lacking, because used partnership units are not appealing to new investors,

as a general rule. As the maxim goes, “Limited partnership units are not bought, they are SOLD.”

**Potential for Low Demand in Public Markets** A second form of illiquidity is found even when investors own real estate directly. If the market is soft in terms of demand, the property is illiquid with one of two consequences. First, it may take far longer to sell than the owner considers desirable. Second, it may be necessary to reduce the asked price in order to compete with other sellers. Owners also have to pay capital gains tax *and* tax on accumulated depreciation when they sell. This is a *huge* disincentive to selling. It can be compensated for, however, through the use of a 1031 exchange, also called a like-kind exchange. In that device, taxes on a current gains are deferred until a future sale of a replacement property.

**Cost of Buying and Selling** For directly owned real estate, it is expensive to buy and sell. Closing costs can easily absorb or even surpass a marginal profit, so in order to justify tying up capital, investors need to hold property long enough for its market value to season. The only alternative in dealing with this form of illiquidity is to refinance to remove appreciated equity, or to acquire a second mortgage or line of credit.

**Leverage** Most directly owned real estate is purchased with a down payment, often 30 percent or more for investment properties. The balance is financed. In this situation, an investor leverages the cash investment, controlling 100 percent with only 30 percent down. While many consider this a distinct advantage, notably when market values rise quickly, it is also a higher risk. The investor depends on consistent cash flow as a requirement for keeping up with debt service. A one-month vacancy may be serious, and a two- or three-month vacancy fatal if the investor has no cushion to make it through extended vacancy periods.

**Risk** The concept of risk is easily underestimated, especially by real estate investors. There is a tendency to dismiss risk on the argument that “it is easy to make money on real estate.” However, a number of risks should be kept in mind. These include the all-important cash flow risk as well as less obvious risks: a slow market in which market value does not rise or even falls; catastrophic loss due to disasters not covered by insurance policies (including volcanic eruption, or earthquake, for example); the disastrous experience of having a tenant who does not pay rent and who refuses to vacate, and perhaps even one who destroys the property; and of course, the risk of a softening rental unit market. All of these risks should

be understood as factors in real estate investing; for many, these risks reduce valuation to the point that it is not worthwhile.

Another form of risk involves spreading capital among markets with dissimilar features. Popularly called *diversification* or the avoidance of losing all invested capital in a single investment choice, the risk here is more accurately distinguished as *asset allocation*, or placing capital in entirely different markets. Diversification is best understood as placing funds in several different stocks or investing in mutual funds to spread risk; asset allocation is more closely associated with disparate market selection, such as stocks, savings, and real estate. Because real estate requires a large sum of investment capital, even in the form of a leveraged down payment, it is easy to forget or ignore the importance of asset allocation. Applying the concept of asset allocation is often difficult for investors of moderate means; it is difficult to diversify limited capital within the real estate asset class. The risk remains, however; if most of an individual's capital is placed in real estate, the asset allocation risk is very real. If real estate stagnates while stock market values become quite strong, the missed opportunities from poor allocation and planning affect overall profits.

**Marketability** The last of the four investment features is marketability. This is not the same as liquidity, although some of the same features apply. By marketability, we mean the existence of a ready buyer when a current owner wants to sell. Some real estate is going to lack marketability, for any number of reasons. For example, an individual who buys property financed by the seller may not realize that the property cannot be financed through conventional channels. In some areas, houses with post and beam foundations do not qualify for bank financing; only those with permanent foundations meet the criteria. So a seller-financed home may be marketable only through private financing. It is often true that what seems an attractive deal—seller will carry the loan—is in reality a situation in which the buyer takes on the seller's problems. In terms of financing, such a property is not marketable.

Marketability is also affected by obsolescence, the expense of outdated utilities, poor insulation, bad plumbing and electrical systems, or—in a general sense—the need for repairs that exceed the equity in the property. This last form of problem, one in which the property is essentially “to-taled,” is especially troubling to the inexperienced real estate purchaser, the individual who views the fixer-upper or landlording market as a method of building wealth in real estate. The concept of marketability refers to a range of issues that are not always apparent, which make an investment a poor choice.

## Appraisal Methods

The final word on valuation is the appraisal. This is an analysis and report prepared by a professional appraiser. An appraisal may be performed for a lender as part of a loan application and review; by an attorney or escrow company during the closing of a sale; or as part of a procedure to establish current market value (closing of an estate, probate, or during a divorce, for example).

While it may be generally assumed that a property has a single, true value, reality demonstrates that this is not so. Based on the reason for the appraisal and the motivation of the individual or company paying for it, a range of reasonable estimates of current market value is possible. For example, a lender who favors granting a loan based on strong credit of the borrower needs primarily to ensure that the stated equity and value of property are within reason. An attorney representing one side in a divorce proceeding may be more interested in gaining verification that property value is *lower* than the adversary for the other side believes. While, in an ideal world, all appraisals would be entirely unbiased, these realities certainly affect how appraisals are performed. But no matter what that motivation, the appraiser is supposed to verify that the stated value is within reason. State licensing boards also exist to ensure that if an appraiser grossly abuses their position, they may have their license revoked.

Appraisers who work locally may be best qualified to render a solid opinion because they are familiar with area trends and values. They know where to locate comparable neighborhoods and properties; and they are connected with local real estate and lending professionals.

Appraisers use one of three methods, and the applicable method depends on the purpose of the appraisal as well as type of property. The three methods are cost, market or sales comparison, and income. Many appraisals of residential property compare the first two methods and then arrive at a reasonable estimate of current value based on that comparison. Commercial appraisers tend to rely on the third method.

## Valuable Resources

To find a local appraiser, check qualifications, or to learn more about the science of appraisal, check the following web sites:

<http://www.appraisalinstitute.org/>

<http://www.appraisalfoundation.org/>

<http://www.american-appraisal.com/>

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**Cost Method** The cost method, or cost approach to appraisal calculates what it would cost to duplicate the existing improvements in today's dollars. A distinction has to be made between *cost* and *replacement*, especially for older structures with exceptional architectural or handwork features. A replacement of such attributes would be more expensive than merely replacing a structure of the same square footage and other internal features.

The cost method includes a calculation of construction costs, minus an estimate of depreciation and special site features, such as view, topography, or lot shape. The concept of *depreciation* for appraisal purposes is quite different from depreciation as defined for tax purposes. Tax-based depreciation involves writing off the value of improvements over a recovery period. Appraisal-based depreciation is an estimate of the difference between new construction (cost or replacement) and the current condition of property. So a run-down property will be given a higher allowance for depreciation than one that is newer and in better condition. A formula for arriving at value using the cost approach is:

$$\begin{aligned} &\text{Cost of construction} - \text{allowance for depreciation} \\ &+ \text{added value based on site attributes} = \text{estimated value} \end{aligned}$$

The basic calculation using the cost value involves first figuring out the square feet and area of the building or buildings; and then multiplying the total feet by applicable cost figures (these vary by region). A useful summary of how to calculate cost factors is found at <http://architecture.about.com/cs/buildyourhouse/a/costs.htm>. However, the first step will be to compare local land and improvement values, based on data from a reputable and authoritative source.

Calculating a depreciation allowance to adjust for age and condition of the home is a process devised to define the *economic life* of a property, or a comparison between improvements and their contribution to overall value. An age/life method for calculating depreciation involves dividing 100 by the economic life to arrive at annual depreciation. For example, if the appraiser believes that the economic life of a property is 40 years, the depreciation calculation would begin with:

$$100 \div 40 = 2.5\% \text{ depreciation per year}$$

Next, the appraiser calculates the *effective age* of a property, which is the age of the property based on current condition of improvements (and not necessarily the true age). For example, if we assume that the appraiser believes a property's effective age is 15 years, the annual depreciation rate

of 2.5 percent (in the preceding example) would be multiplied by five years:

$$2.5\% \times 5 \text{ years} = 12.5\%$$

The appraiser's estimate of cost to replace improvements would next be reduced by the depreciation factor. For example, if the current cost value of property is estimated at \$300,000, the calculation would be:

Cost value of property	\$300,000
Less depreciation, 12.5%	<u>– 37,500</u>
Net cost value	<u>\$262,500</u>

Finally, the appraiser adds value for advantageous site features. By comparing the subject site to other sites in the area, the appraiser adds a factor to compensate for differences. For example, if the site is larger than other lots, the appraiser may add a percentage to the net cost value. In reviewing comparable lots, the appraiser may determine that it is reasonable to add 5 percent to the value of the property for site value:

Net cost value	\$262,500
Plus: site value, 5%	<u>+ 13,125</u>
Adjusted value	<u>\$275,625</u>

Applying these criteria to a subject property and three or more comparable properties, the appraiser is likely to make specific adjustments to arrive at fair market value; or to take an average among comparable properties to arrive at a base for calculations under the cost approach.

A cautionary note concerning the use of the cost method: When appraisal is performed for developers on larger-scale projects, selection of costs has to also take into account the practical marketing aspects, and not simply the cost of land and materials. It has been observed that

*these costs are a function of the overall design of the project and the needs and desires of likely buyers of the finished lots. In forecasting site development costs, care should be taken to ensure that the forecast properly reflects not only the actual expenses, but also the timing of the expenditures. Often an appraiser is supplied with a cost estimate by the developer. The cost estimate should be cross-checked against the actual development costs of similar subdivisions and perhaps against cost service estimates.<sup>4</sup>*

The cost method is also often used for valuation of industrial properties that may have specialized equipment and do not have an easily observed rental market. As such, the cost method is more applicable than the income approach.

**Market or Sales Comparison Method** The second method is an exercise in comparison between the subject property and other, similar properties that were sold recently. These comparable sales are most valid if they occurred in the recent past. Thus, properties sold in the past three months would be more relevant than those that sold nine months ago. Recent sales reveal current market value and make a convincing argument in support of this appraisal method.

Adjustments are made to the comparable property sales totals to arrive at a true basis for comparison. For example, an appraiser may deduct a percentage of value from a comparable property because it was built a few years before the subject property. Or some value may be added to a comparable property with more square footage or a somewhat larger lot. So condition, lot size, square footage of improvements, and condition will all play a role in adjusting comparable sales so that, in the appraiser's opinion, the related sales are truly as comparable as possible.

The appraiser makes a judgment about how to equate comparable sales (after adjustments) to the subject property. However, more weight may be given to a property requiring the least amount of adjustment; or to a property whose neighborhood is most similar to the subject neighborhood. Is the decision about how to make an adjustment to be based on subjective or objective criteria? This appraisal approach is described by one expert as a paradox. He explains that some textbooks

*refer to the adjustment and final estimate of value process as more of an art form than one of mathematics. The appraiser is supposed to draw on his or her experience to aid in the adjustment process and rigid mathematical calculations should not dictate the amount of the adjustment. In actual fact, the opposite should occur. The valuation of any given piece of real estate should not be left to a process that relies on an artist's acuity, particularly when the outcome of value is deemed to have some type of mathematical significance.<sup>5</sup>*

**Income Method** The third and most complex method for appraising property is based on rental income derived from properties. This method is used for both residential single-family or multi-unit buildings and for commercial properties.

For single-family properties appraised under the income method, a *gross rent multiplier* (GRM) often is used. This is a factor developed from a study of comparable sales prices of property and the monthly or annual income those properties generated.

For example, consider the case of five properties sold during the past six months. To compute the GRM on a monthly rent basis, the formula is:

$$\text{sales price} \div \text{gross monthly income} = \text{GRM}$$

Some typical numbers based on this formula for single-family residences:

Sales Price		Monthly Income		GRM
\$125,000	÷	\$ 950	=	131.58
132,500	÷	1,050	=	126.19
134,000	÷	1,000	=	134.00
141,500	÷	1,100	=	128.64
145,000	÷	1,125	=	128.89
Average			=	129.86

The same calculation can be made using annual rents:

Sales Price		Annual Income		GRM
\$125,000	÷	\$11,400	=	10.96
132,500	÷	12,600	=	10.52
134,000	÷	12,000	=	11.17
141,500	÷	13,200	=	10.72
145,000	÷	13,500	=	10.74
Average			=	10.82

An appraiser would conclude from this analysis of GRM for comparable properties, that a reliable estimate can be applied to be the subject property. More weight may be given to properties most comparable, so even these averages could be altered to make the appraiser's conclusions more accurate. For example if the appraiser uses the annual GRM method, it may be that the second and fourth properties are most comparable to the subject property. As a result, the appraiser may apply a factor of 10.62 (an average between GRM of 10.52 and 10.72) rather than the higher overall average.

Next, the appraiser would analyze annual rent derived from the subject property. If we assume, for example, that a single-family home has been rented out in recent years and currently generates gross rent of \$12,000 per year, the annual GRM is used to estimate appraised value:

$$10.62 \times \$12,000 = \$127,440$$

Under this method, the appraiser would conclude that the property is worth \$127,440. Factors affecting the selection of a GRM and making adjustments to comparable properties may include neighborhood condition, age and condition of the property, lot size and other amenities, and any other attributes the appraiser believes are significant (view, proximity to transportation or shopping, noise levels, topography, etc.).

For multi-unit properties, an appraiser uses a factor known as *capitalization rate*, or *cap rate*. The calculation of cap rate involves calculation of annual income and a comparison between the subject property and cap rates on comparable properties in the same area or similar areas. For example, in appraising an apartment complex with net operating income (rents less vacancy factor, taxes, insurance, management fees, repairs and utilities) of \$52,800 per year, the current value of the complex can be calculated by comparison with other apartment complexes with a similar number of units, same or similar neighborhood, and similar condition and age. For example, checking five other properties, the appraiser may discover the following:

Net Operating Income		Sales Price		Cap Rate
\$58,000	÷	\$565,300	=	10.3
52,500	÷	522,800	=	10.0
57,000	÷	566,000	=	10.1
61,500	÷	605,400	=	10.2
55,000	÷	545,000	=	10.1
Average			=	10.1

The cap rates in these comparable sales are very close, so an appraiser may conclude that the 10.1 is a reasonable local rate. Thus, applying this rate against net operating income, market value may be appraised as:

$$\$52,800 \div 10.1 = \$522,772 \text{ (rounded to } \$522,800\text{)}$$

This method, also called *direct capitalization* of the subject property, is convincing when it conforms to market rates in comparable sales, when rents are at market rates, and when the properties are stabilized. Alternative calculations may be based on assumed available return on investment from other uses of capital, and the calculations are far more complex. For complex properties, such as office buildings or rehab properties with long-term lease tenants, the appraiser may find that rents are significantly above or below market rates. In these situations, appraisers will use a discounted cash flow over the entire life span of the investment by valuing earlier cash flow as worth more than future cash flow. The goal in this approach is to reduce the future value to present value or, put as a question, “What should you pay today for the future stream of cash flows?” Most appraisers will use specialized financial software tools such as ARGUS ([www.argussoftware.com](http://www.argussoftware.com)) to help with these calculations. This approach is complex and beyond the scope of this book.

The alternative cap rate calculations are troubling because comparisons between dissimilar investments are not always valid. Given different risk factors, return on investment is not as exact as market sales comparisons.

In appraising rental income property, appraisers may adjust their findings based on other factors, especially cash flow. The strength or weakness in projections of likely future cash flow is, perhaps, of more immediate concern to investors than profitability over the long term. As a question of feasibility, investors need to base valuation on the relative strength of cash flow adjustments. Three useful tests are used in appraisals for this purpose: debt coverage ratio, expense ratio, and loan-to-value ratio.

The appraiser may begin by questioning whether current net operating income will be strong enough to cover debt service on a mortgage loan. To determine this, the *debt coverage ratio* is used. To calculate, net operating income is divided by the amount of debt service to calculate the ratio. For example, when net operating income is \$52,800 and annual debt service is \$37,896, the debt coverage ratio is:

$$\$52,800 \div \$37,896 = 1.39 \text{ to } 1$$

This ratio provides a view of the net cash flow after expenses and debt service have been paid. How this compares to similar properties may reveal the relative strength of that cash flow and could affect the appraiser’s conclusions concerning value.

A closely related calculation is a study of the *expense ratio* for an income property. In this calculation, operating expenses are divided by effective gross income (maximum rental income minus vacancy rate). For

example, if effective gross income is \$52,800 and annual operating expenses average \$21,500, the expense ratio is:

$$\$21,500 \div \$52,800 = .41$$

This operating ratio is next compared to the operating ratio for similar properties to draw conclusions about whether cash flow conditions are strong or weak, in comparison.

A third calculation involving cash flow is the *loan-to-value ratio*. In this calculation, the mortgage amount is divided by the value of property. An investor purchasing a property for an assumed value of \$522,800 may seek a loan of \$400,000. In this example, the loan-to-value ratio will be:

$$\$400,000 \div \$522,800 = 76.5\%$$

These three ratios are most effectively used in comparative form, between alternative potential properties and between a subject property and comparable sales. Valuation is normally involved with identifying a reasonable sales/purchase price for buyers, sellers, lenders and investors; the three forms of cash flow analysis further identify valuation of properties based on comparative return, which may be of more immediate interest to buyers as well as to lenders. The question of affordability relates more to cash flow than to economic rent.

That being said, potential income value is also calculated based on a study of *economic rent*. This is an analysis of rent on the basis of rent per unit, per room, or per square feet (or all three). For example, if gross annual rent is being compared for five comparable properties, an economic rent analysis may reveal the following:

	Property #1	Property #2	Property #3	Property #4	Property #5
Annual rent	\$11,400	\$12,600	\$12,600	\$12,000	\$13,500
Units	10	12	15	13	15
Rooms	32	37	48	41	45
Square feet	4,450	4,900	6,200	4,400	5,950
Annual rent per:					
unit	\$1,140	\$1,050	\$840	\$923	\$900
room	\$356	\$341	\$263	\$293	\$300
sq. feet	\$2.56	\$2.57	\$2.03	\$2.73	\$2.27

These factors, like other appraisal steps, enable comparisons between comparable properties and the subject property, and may allow both ap-

praiser and investors to draw conclusions about the efficiency, cash flow, return on investment, and other important questions. As a means for comparing the feasibility between two or more properties, the comparative analysis that is derived from appraisals is an integral part of market analysis and the overall study of property valuation.

### **Legislative Policy and Valuation**

We have concentrated on market forces for the majority of our discussion on land valuation. However, we also need to be cognizant of how *artificial* forces may also affect land values. These forces—specifically consisting of local zoning, growth management and other legislative controls, and the government's right to exercise eminent domain—may significantly affect land values as well as the ability of the market to respond to forces of economic supply and demand.

The first U.S. zoning ordinance was passed in 1916 in New York City. It defined height and setback limitations on buildings and restricted incompatible land uses. The original purpose was to prevent industrial uses from moving gradually into Manhattan's office and shopping districts. Today, the three most common major land use divisions are residential, commercial, and industrial, with many potential subcategories as well.<sup>6</sup>

Local zoning is designed to control, limit, and regulate land use. One premise underlying zoning itself is to protect public health, safety, and welfare. The basis for this starting point is found in the Fifth Amendment to the U.S. Constitution, which reads in part, “. . . nor shall private property be taken for public use, without just compensation.” An important landmark case heard before the Supreme Court clarified this principle with a ruling that zoning designed to protect the public health, safety, and welfare is Constitutional, but that when zoning is set for other purposes, it may be challenged.<sup>7</sup>

However, the issue of how and why municipalities enact specific zones may be challenged in some circumstances, notably when it can be shown that the purpose of zoning is to prevent certain types of development from occurring. This so-called *exclusionary zoning* is used improperly to keep out newcomers and to prevent growth, rather than to serve a legitimate purpose.

The city or county may employ zoning to provide exceptional design, encouraging developers to use innovative features such as cluster development, mixed use, and landscaping to add visual effects while also providing amenities (public areas, trails, sight and wind buffers, privacy, and common areas for residents, for example). A Planned Unit Development (PUD)



is one device used by cities and counties to provide developers with exceptions to general zoning laws in exchange for innovative design.

The idea that a government can take land from citizens through zoning laws does not necessarily mean actually acquiring ownership of the property. A taking of land can be accomplished by reducing a property owner's rights to use of that land. So valuation of property can be determined by a change in zoning, for example.

Two U.S. Supreme Court cases set the rule that local governments can impose restrictions on land use only if there is what the Court called an “essential nexus” between conditions and regulatory objectives. The Court also ruled in these cases that there must be a balance between consideration of the public burden resulting from development, and a requirement placed upon a developer to fund the cost of infrastructure projects.<sup>8</sup>

So *takings* may be defined as limitations on development activity, changes in zoning that prevent an owner from using land as intended or desired, or the requirement by a city or county that in order to gain approval, a developer must pay for additional benefits or donate land. Of course, such requirements can be imposed, but they have to be measurable against the impact to the public of new development, and there must be what the Court called a “rough proportionality” between such conditions and the public burden caused by development.

The ability of a government to take property grows out of another concept, called *eminent domain*. This is a legal power granted to the government and found in the Fifth Amendment. It provides that the government (federal, state, or local) has the power to take private property for public use; upon exercise of that right, the landowner must be given adequate compensation (the proper or just value of property taken under eminent domain, usually market value). The exercise of eminent domain is most often called a *condemnation* or *expropriation*—nicer terms meaning the same thing as a taking of land.

Takings are allowed under law for the “public good.” This means that when a freeway has to go through, or hospitals, jails, utility plants, and other *essential public facilities*, the government can override the private property rights of the current owner and buy the land, even when the owner does not want to sell.

### Valuable Resource

To study current trends in takings legislation and zoning policy, check <http://www.law.georgetown.edu/gelpi/takings/courts/>.

Recent trends have demonstrated that in some cases, governments have used eminent domain to control development or to force through land uses that cannot be truly classified as belonging in the realm of the “public good.” Condemning land so a new sports arena can be built might be advantageous to the community, but does it fit the definition of “public good” and does such a facility constitute an “essential public facility”? The controversy is ongoing. In other cases, governments have misused eminent domain as a way to prevent development from occurring, as a sort of institutionalized antigrowth movement, sanctioned by the local government. One possible risk associated with development, as exercise of eminent domain, would limit potential improvement in land values.

The trend in the courts shows that while some attempts have been made to abuse the power of eminent domain, those decisions are likely to be overturned. In two recent cases, state courts ruled that taking private property in order to resell it to other private owners was not legal.<sup>9</sup>

Real estate valuation may certainly be adversely affected by takings on the part of government. However, these occurrences are not common. In comparison, those states that have enacted so-called “growth management” laws have experienced a mix of outcomes, not all positive. Several states and some municipalities have enacted growth management legislation. Among the most controversial have been Virginia, California, Oregon, Florida, and Washington states. About one-fourth of Washington and Florida state increases in housing prices from 1995 to 2000 were due to restrictive terms in state growth management laws. Ironically, one stated purpose in growth legislation is to promote affordable housing. The record demonstrates that trying to artificially control market valuation through legislative tinkering is ineffective and, in fact, expensive.<sup>10</sup>

In such states, recent history has shown that the stated intention of Growth Management Act (GMA) types of laws has not worked and in the long-term, such plans will not be effective. In many states, notably the State of Washington, the GMA has been very controversial. Many of the decisions made by the Washington GMA boards have been overturned by the state’s courts, fueling the debate. Growth management is intended to provide a means for public participation without needing attorneys; but in

### **Valuable Resource**

To view recent court cases involving eminent domain, check the web site <http://home.hiwaay.net/~becraft/recentcases.htm>.

some GMA states, there has been an increased level of land-use litigation relating to GMA rules.

### **Methods of Entering the Market**

The ramifications of growth management and other artificial impositions on market-based real estate valuation are serious for all real estate investors, lenders, and homeowners. However, the concern goes beyond the three most common forms of entry to the market: home ownership, single-family housing rental investments, and the fixer-upper (property flip) market.

These are the most common starting points for most people. However, questions of valuation are also on the minds of those who enter the market through other means. These include:

**Individual Secondary Mortgage Lending** Individuals can assume debt positions (lending money) as well as equity (owning property). These positions can involve significant risk as well. Granting individual second mortgages to property owners creates an income stream and higher than average interest rates. However, if and when such second mortgages are defaulted, the lender is entitled to get their principal returned only after the first mortgage has been paid. In cases where owners overborrow, second mortgage investors could be left with losses. The way to reduce risk is through careful screening and selection of borrowers with plenty of equity in their homes. Some companies specialize in placing money in second mortgages, notably through self-directed retirement plans or financial planning programs.

**Mortgage Pools** A relatively safe method of investing in debt is through what is called the *secondary market* for debt. Most conventional lenders sell their loans to one of the big government-sponsored programs, which include the Federal National Mortgage Association, or FNMA (<http://www.fanniemae.com/index.jhtml>) and the Government National Mortgage Association, or GNMA (<http://www.ginniemae.gov>). These organizations create mortgage pools of real estate loans and sell shares to investors. They are just like mutual funds, but portfolios consist of real estate loans instead of stocks and bonds. Investors can also enter into these positions indirectly by purchasing shares in mutual funds that in turn buy shares in mortgage pools.

**REITs** The Real Estate Investment Trust, or REIT, is a practical venue for acquiring equity in real estate. The big advantage of buying REIT shares is

that they are traded on public exchanges, just like stocks. This liquidity makes the REIT a desirable and practical way to diversify an equity portfolio. The most popular type of REIT is called the *equity REIT*, in which investors buy shares of ownership in properties. Two other types are the *mortgage REIT*, in which invested funds are loaned out to builders and developers, current real estate project owners, or mortgage backed securities; and the *hybrid REIT*, which combines both equity and mortgage features.

About 96 percent of all REITs are classified as equity. About 1.6 percent are mortgage REITS, and just over 2 percent are hybrid. The REIT market is also interesting in terms of the types of property these programs select. The most popular choice (33.1%) is industrial and office; next are residential (21.0%); and retails (20.1%). These three classifications add up to about three-fourths of all REIT-based investments. The remaining equity goes to no real estate representing more than 10 percent of the total.<sup>11</sup>

**Limited Partnerships** Investors can also buy units in limited partnership programs. In the past, such programs were popularly called “tax shelters” because they were set up to provide big write-offs for investors, often exceeding the amount invested. Changes in tax laws essentially closed down the tax shelter industry. As part of the change, limited partnerships were classified as passive investments. This means that losses can only be deducted to the extent that they offset other passive gains. No longer can investors in limited partnerships claim large write-offs; and investors can never deduct more than the amount at risk (this is defined as the total of cash paid into the program plus recourse loans, or loans that must be repaid). One major problem with limited partnerships is their illiquidity.

**ETFs** A final category is also the newest. The Exchange Traded Fund, or ETF, is a type of mutual fund that is highly liquid. Shares are bought and sold on public exchanges rather directly through fund management companies. Traditional mutual funds were set up to emphasize a particular investment policy, such as “aggressive growth,” “current income,” or “conservative growth.” In comparison, the ETF is set up to select a specific portfolio, such as stocks in an index or market average; stocks of a

### Valuable Resources

A useful overview of REIT basics can be found at ReitnetOnline (<http://www.reitnet.com/reits101>) as well as at the National Association of Real Estate Investment Trusts (<http://www.nareit.org>).

### Valuable Resource

The market for ETFs changes often as more investors discover the benefits and advantages of these funds. As of the writing of this book, four ETFs specializing in real estate were identified. While we do not endorse any of these funds, they are useful as a starting point to learn more about the ETF market:

<u>Name</u>	<u>Trading Symbol</u>
iShares Dow Jones US Real Estate	IYR
iShares Cohen & Steers Realty Majors	ICF
Vanguard REIT Index VIPERs	VNQ
street TRACKS Wilshire REIT fund	RWR

particular country or those that specialize in a precious metal; or funds with stocks in a specific industry or sector. An ETF may invest in real estate sector stocks, REITs, or both. Because the ETF portfolio is identified in advance, management fees are far lower than those for the old-style mutual fund. Finally, ETF owners often have the ability to break out segments of the fund, or to buy and sell options based on the ETF and its bundle of stocks. The ETF market is growing rapidly.

## Single-Family Home and Condo Analysis

*Most people are familiar with residential real estate; however, this is itself a complex investment form. There are many different types of residential properties and analysis should be broken out and separated based on (1) location, (2) size, (3) local trends, and (4) other, special considerations (i.e., subsidies, rent controls, or tax credit incentives). We introduce these important issues in this chapter and also study the antidevelopment movement known as NIMBY (Not In My Back Yard), demonstrating how analysis in real estate is not merely economic; it may be political as well.*

**N**o particular property is necessarily easy to analyze. Some relatively inexperienced individual investors believe they understand the market valuation attributes of single-family homes because—like a majority of real estate investors—they own and live in a home themselves. This is a mistake.

The *investment* attributes of residential property are not the same as the features of owner-occupied homes, in four ways:

1. *The underlying premise for ownership is not the same.* An individual purchases a home partially as an investment, but also out of necessity. If that person does not own a home and make payments on a mortgage, the same money (in some instances, *more* money) has to be paid for rent, without the tax savings and long-term appreciation derived from home ownership. The premise for investing in rental property is entirely separate from the premise for buying a home. For anyone not yet a homeowner, the idea of ownership is the definition of the American Dream.

2. *Cash flow analysis is not the same thing as homeowner mortgage affordability.* It is not accurate to compare investment cash flow to the entirely separate question of a primary residence's affordability. Cash flow analysis is a study of risk as well as of affordability; many market and economic factors come into play when you are analyzing the feasibility of a particular property and given a specific market. The type of home an individual can afford is determined by income, down payment, and current interest rates. While an investor can simply decide to not proceed because the feasibility study is not encouraging, a would-be homeowner has more limited choices when the numbers do not work: Continue to pay rent or look for a home that does not cost as much. The homeowner seeks affordability, and the investor views cash flow issues as aspects of feasibility; these are not the same issue.
3. *Lenders have a far different risk profile for each type of real estate.* Individual real estate investors discover quickly that lenders are far more risk-conscious in the case of financing investment real estate than they are in the case of owner-occupied properties. When an individual finances a home, good credit may lead to low-rate, low-down (or no down) financing, and fast approval. But investors traditionally are required to commit 30 percent or more to a down payment, and also may have to pay higher interest rates than homeowners.
4. *Tax benefits are vastly different.* Homeowners enjoy specific tax benefits, but these are also quite limited. They are allowed to deduct mortgage interest and property taxes on their primary residences, but nothing else that recurs from year to year. When a primary residence is sold, gains up to \$500,000 are tax-free. This may be a good or a bad tax rule. If a married couple wants to move from their current home to a smaller one and their gain is less than \$500,000 (and they qualify in every other way), the tax-free profit is a substantial benefit. However, in some regions of the country, properties purchased 20 years ago for less than \$50,000 may be worth \$1.2 million today. A sale may produce a profit of \$1 million or more in these markets, and the maximum tax-free profit is \$500,000. In the past, gains could be deferred by buying another home, but under the tax-free rule, any excess more than the maximum of \$500,000 for a married couple is taxed.

Investors are allowed to deduct as investment expenses their interest and taxes, as well as other operating expenses: insurance, utilities, advertising, management fees, and auto or truck expenses, for example. Most significantly, however, they can also deduct depreciation, which is a substantial benefit. Investors who actively participate in managing their own properties can deduct up to \$25,000 per year in tax losses. Upon sale of

investment properties, investors pay capital gains tax on the net difference between sales price and original purchase. They also have to pay taxes on the total of depreciation claimed over the period the property was owned.

If we move even further beyond the mere understanding associated with investment value, we begin to understand that for residential properties, analysis requires a comprehensive survey of market factors beyond value itself. One real estate book involving the necessity of the differences between financial and lifestyle (among other) issues affecting decisions people make, explains that:

*much of the analysis for residential development must rely on a qualitative understanding of the market and its dynamics. Both the product and the consumer must be understood in terms of choices people make, evolving lifestyles, personal tastes, and many other considerations that cannot be quantified. Focus groups, buyer surveys, and other qualitative techniques augment the hard data of the market study. Understanding the lifestyles and other qualitative characteristics of consumers can help to appropriately define a residential product.<sup>1</sup>*

Therefore, it is wise to consider the nature of the end-user (homeowner) in an analysis of residential property and to accept the reality that those who buy homes may have a different series of assumptions, desires, and motivations from those who purchase warehouses and office buildings. Everyone is interested in value and cost. But homeowners are different enough and in significant ways that, in fact, when you attempt to identify valuation factors of residential properties—even using primarily financial and economic data—it is wise to also remember that the residential, homeowning consumer is unique and different from the commercial customer, the developer, or even the residential property investor.

## HOME OR CONDO?

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We make a distinction in this chapter between a single-family home and a condominium, and for good reason: The analytical and market attributes of each may be vastly different.

A single-family home is a stand-alone building and includes full ownership of the land and improvements. There are no shared common areas or expenses with other owners, except in those areas where covenants mandate—as part of the purchase agreement—that each property owner



carries a responsibility for common ownership and liabilities of specific areas (such as park areas, trails, club house, sports facilities, exercise rooms, and meeting room areas, for example).

A multi-family directly owned unit is studied in the next chapter. However, its classification may properly belong here with single-family housing, as opposed to rentals as seen in apartments. Thus, duplex, triplex, and fourplex units are multiple units within a single building. They usually have separate entrances or access to units through a shared common area such as a lobby or hallway. Owners in multiple-unit buildings operate under the terms of an agreement for common-area maintenance, insurance, and ownership.

A condominium may come into existence in one of two ways. A development may be designed to create owner-occupied condo units, or an existing apartment building may “go condo,” be converted to condominium ownership, in which case the purchaser buys an apartment. At the same time, the purchaser, together with the other unit owners, buys an “undivided interest” in the common elements of the building or development. Common elements generally include the land on which the building stands, the lobby, public halls, driveways, access roads and parking areas; and the electrical, mechanical, heating, and air-conditioning systems that service the building.

In a similar arrangement, the *cooperative*, or “co-op,” a corporation is formed to take ownership of an entire project or building, and individual owners buy shares. In the condo, rather than owning shares in a cooperative, buyers own their individual units outright and receive deeds for them. Each of the unit owners is responsible for paying a proportionate share of the building’s fuel costs, building employee salaries, and other expenses of operation. These are known as common charges. Additionally, each condominium owner pays real estate taxes, separately assessed against each unit, and the cost of any mortgage obtained to finance the original purchase. The condominium owner may deduct these tax payments and the payments of interest (but not principal) on the mortgage, from taxable income.

The condominium is governed by a board of managers elected by the unit owners. The board’s authority to operate the building is explained in detail in the condominium declaration and bylaws, a copy of which is included in the offering plan. These provide rules and procedures for conducting the affairs of the condominium, and define the rights and obligations of unit owners. For example, the bylaws may restrict the right of unit owners to make certain kinds of alterations to their units or to lease or mortgage them.

In studying specific valuation factors, these distinctions should be kept

in mind. The attributes of each ownership format may affect value. For example, the cost of a mortgage on a single-family home is not directly comparable to a mortgage on a condominium. Because condominium owners are obligated for additional fees, their relative cost-versus-benefit analysis should be made on the basis of total payment obligations.

*Example:* You are comparing the ownership of a three-bedroom, single-family home to a variety of condo units. The typical condo unit sells for \$200,000 and on average additional monthly fees are \$400. What is the equivalent cost to purchase a single-family home? Using an assumed mortgage rate of 6 percent and a 30-year term, the cost to the condo owner will be:

Mortgage payment, \$150,000 mortgage	\$ 899
Common area and other fees	\$ 400
Total monthly obligation	\$1,299

In looking at a book of mortgage amortization, a \$1,299 monthly payment would apply on a \$200,000 mortgage. So in theory (and assuming the same down payment) the monthly obligation for a \$200,000 condominium would be the equivalent to the outright purchase of a \$250,000 home.

This analysis is not entirely reliable. Some of the services provided within the monthly condo payments include expenses the homeowner would have to bear or pay separately—or pay for features the homeowner might not have. But even so, the brief example makes the point that in comparing costs, the analyst should consider not only the mortgage payment, but the condo (or co-op) contractual obligations as well.

**VALUATION FACTORS UNIQUE TO  
RESIDENTIAL PROPERTY**

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In judging the market value of single-family homes, we need first to study the basic market characteristics and next to consider the supply and demand features for the property as well as site-specific attributes. The valuation factors should be broken down into three specific classifications.

**Market Conditions in the Local Area**

The “local area” in the case of single-family homes is, of course, both the immediate neighborhood and the city or town in which it is located. So we have to consider two versions of the local market in the analysis of a house. If the neighborhood is *in transition*, which way is it heading? As

older owners move or pass away, younger families replace them and, as a general rule, tend to fix up outdated properties, adding value to the neighborhood. However, due to outside factors like high unemployment, some neighborhoods experience deterioration, high vacancies, increased crime, and other factors that reduce property values. While houses in such areas may be cheaper than market rates elsewhere in the same region, the negative transition is not a positive indicator.

Certain larger market areas—specifically towns, cities, or counties—also experience transitions. Growth is caused by factors such as employment, tourism, proximity to outside work centers, and other external influences. For example, if a city within a one-hour commute has a booming employment market, a relatively remote town could experience a rapid increase in demand as workers seek suburban “bedroom communities” nearby. Growth may also be artificially contained, controlled, or deferred through antigrowth sentiment locally or even through legislation. Growth management trends have demonstrated that attempts to slow down growth have resulted only in higher real estate prices (see the previous chapter). Such trends are anything but economic, and, time has shown, devices such as growth management, local building moratoria, and impact fees not only add to the cost of housing, they also do immediate damage to commercial and retail trends locally and may even cause growth rates to fall below desirable levels, and below levels required to sustain local jobs and trade. In one instance in North Carolina’s Research Triangle area (Raleigh, Durham, and Cary) the consequences of impact fees included negative consequences. A 2003 story explains that

*leaders in Cary . . . began to rethink their stratospheric impact fees after the town’s growth rate plummeted below the goal of 4 percent to only 1.7 percent last year. Cary’s impact fees are as much as four times higher than those in the city of Durham and six times higher than those in Raleigh.<sup>2</sup>*

Attempts to artificially control or prevent growth, or even schemes designed to create added revenues through impact or permit fees, invariably bring unintended consequences: unacceptably low growth rates, soaring real estate prices, and what can only be described as poor planning policy. Such artificial growth policies relate more to housing than to other types of property. A widespread belief that rapid growth in housing stock leads to higher crime, more traffic congestion, and deterioration in the quality of life may be based on some evidence, but the point remains that, in spite of efforts to the contrary, growth occurs in response to economic realities. It

cannot be created where there is no demand, and it cannot be prevented when demand is high.

In fact, in spite of evidence that attempting to artificially control the market through imposition of growth management legislation has largely failed, many states continue to pursue the agenda of trying to determine what types of growth occur, both where and when, based on the notion that, somehow, such controls are good for the market. These so-called “planning intervention regimes” have universally had the opposite effect to the stated goals. As explained in one article, it has been demonstrated that:

*local governments are unusually ineffective in achieving such overarching public interest goals as preserving natural resources, containing urban sprawl, and mitigating losses from hazardous events. The reason is basic to decision making: individual, developers and local governments will act in their own self-interest.*<sup>3</sup>

The classic observation of how people act and react begs the question. In an economic sense, the theory of the “tragedy of the commons” prevails and motivates people, and this reality cannot be avoided.<sup>4</sup>

### **Economic Trends and Supply and Demand**

A more ordered factor in the valuation of single-family housing is the collective basket of economic factors. Generally, this refers to supply and demand; however, there is more to the equation. Supply and demand markets may exist on several tiers (for housing, rental units, and financing), and the trends in those tiers of markets do not always move in the same direction.

Economic trends, of course, continue to rule, but the landscape itself has changed over history. The development of the automobile and mass transit have drastically changed not only how people work, but also where they live. We remain in the middle of a long-term trend of population movement away from traditional big cities and into suburbia. This new population center, dubbed Edge City by author Joel Garreau, is defined as a major change in U.S. demographic trends:

*These new hearths of our civilization—in which the majority of metropolitan Americans now work and around which they live—look not at all like our old downtowns. . . . their landmark structure is the celebrated detached dwelling, the suburban home. . . . I have come to call these new urban centers Edge Cities.*<sup>5</sup>

### **CASE STUDY: ANTHEM, PHOENIX, AZ**

One of the fastest-growing regions in the United States is the central Arizona Phoenix metro area. Much of the development is aimed at retirement or semiretirement age groups; one exception is the Anthem project, which began selling in 1999 and is planned for completion in 2007.

Developer Del Webb is well-known in the Southwest for its “lifestyle communities”—often gated, guarded neighborhoods. The Del Webb Corporation has built more than 100,000 homes since 1928 and is best known for its Sun City retirement communities. Anthem is the company’s first nonage-restricted housing development and is described on its promotional web site—[www.anthemarizona.com](http://www.anthemarizona.com)—as containing two sections. Anthem Country Club consists of “gate-guarded, resort-style living with two . . . 18-hole championship golf courses.” The target resident market is described as professionals aged 40 to 60, preretirees and empty nesters. Anthem Parkside offers “real neighborhood living with activities and amenities tailored to fit the way your family lives, works and plays.” This section markets to people aged 25 to 40 with children.

This self-contained approach to master-planning community design is typical of the Edge City trend. These are not small, either. By the time the project is completed, it will contain 12,000 homes—the size of a small city on its own. In fact, the project includes features one would expect to find in such a city: shops, restaurants, parks, open space, schools, commercial, industrial, and office space, and municipal services, for example. Because the area involved is both large and remote (5,760 acres 35 miles north of Phoenix) virtually all trips require the use of an automobile. And because the development is so large, it is also diverse, offering something for many different markets within the development itself. Even the recreational facilities are designed to appeal to all age groups.

A 43,000-square-foot community center is the hub of the community. It is next to the community park where the first K-8 school is also sited. The center includes after-school activities, a complete fitness center, tennis courts, dance studio, and a Big Splash Water Park. The Golf and Country Club, one of the few private clubs in Arizona, includes two full championship courses as well as swimming pools, tennis courts, fitness center, and a dining room.

The complex includes a 128,000-square-foot retail center called

**CASE STUDY: ANTHEM, PHOENIX, AZ (Continued)**

Anthem Marketplace. Included within are a Safeway store, drugstore, dry cleaner, restaurants, and a DVD rental store, among others. Business outlets are also located strategically at major intersections within the complex so that, conceivably, residents would never need to travel outside the immediate community. All of their schools, shops, and recreational facilities are available close by. Even a complete medical facility is planned in the near future.

What makes this large-scale project unique is that it is designed to respond to many different markets—semiretirement through families with young children. In many of the gated communities in the area, the predominant market is retirement-aged. In one of the dozens of communities in Chandler, Arizona, for example, a common complaint is lack of adequate healthcare facilities within the immediate area. The residents refer to the frequently heard EMS vans and ambulances as the “taxis to the hospital.”

Anthem’s design includes 36 percent of the total land area for open space and recreational use. This is a major selling point, especially for the younger age-group residents and their children. The site’s design—the land was originally a remote rural desert setting—incorporated the natural terrain and desert vegetation into the community. Cacti that had to be removed for streets and houses were replanted, and an extensive system of trails provide for horse and foot traffic.

The Webb Corporation performed an extensive market analysis and, in the case of Anthem, this phase was more extensive than usual. The company spent \$5 million on marketing before the project design was started. Research included a detailed survey of baby boomers and retirees. The Anthem design was based on the research, which included not only the survey, but also focus groups and interviews with potential buyers. Further research was conducted on existing residential communities in the area. The goal was to avoid mistakes and to develop a large-scale community that met the needs of the target markets.

The research paid off. More than 7,000 people attended a preview of the first phase and about 300 homes sold in the first week. With an estimated total cost at build-out of \$1.7 billion, the mixed market approach may set a trend for large Edge City-type planned communities in the future. Rather than focusing on a single market, Anthem demonstrates that it is possible to appeal to a variety of different demographic groups.

The very concept of Edge City implies order and predictability, but when we consider the inefficiencies of the model, including the requirement that residents must drive virtually everywhere, we soon realize that as a planning device, the newly evolved Edge City, while part of a modern trend, may be as “unintelligible as in any dream.”<sup>6</sup>

While Edge City-style planned communities represent an important trend, notably in areas like Phoenix, a parallel trend continues away from urban living to outlying suburbs. In some areas, this trend has been reversed as city centers go through renovation, but the widespread appeal of suburban living—whether in a planned community or an easy train ride to downtown—is undeniably continuing to occur. Additional economic forces, all of which affect supply and demand itself, include the following.

**Local Development Trends** Some areas experience exceptionally high volume of growth in new houses, even when demand does not appear to support such trends. As a general observation, development does tend to perform in excess of demand and we see housing construction continue even as the supply and demand cycle peaks; just because the cycle turns, does not mean a slowdown in immediate construction. Construction takes time to finish; it is invariably better to finish and sell than to merely stop work.

The cause of the cyclical turn may also be attributable to financing incentives (cheap money and cheap land, for example), enabling builders to continue working and keep employees busy, due more to seasonal preferences than to actual demand for more homes. Of course, the whole cycle is driven by demand, but construction trends may rely equally on tax incentives (for affordable housing), financing, and favorable local growth policies.

**The Local Job Market** As employers move into an area, people follow to obtain jobs. This tendency has characterized real estate and demographic trends since the post-Civil War era. Today, an equally important factor is that of proximity. People do not need to live where they work and, in fact, may find urban living far less desirable than buying a home in the suburbs. The emergence of this trend—purchasing homes outside of the city and commuting to work—is a dominant theme in residential real estate.

**Local Amenities beyond Housing** We witness the growth of many areas based on economic factors beyond local job markets. For example, recreational amenities often *create* growth directly. When Six Flags Marine

World<sup>7</sup> opened its 136-acre park in Vallejo, California, years ago, the town was relatively small. While many factors have contributed to growth in the San Francisco Bay Area, Marine World's facility contributed significantly. Since 1970, the city's population has grown 70 percent and Marine World was the third largest employer in 2004, with 1,660 jobs (behind Kaiser Permanente Hospital and the local school district). Housing prices have followed suit; Vallejo made the CNN list of "hottest zip codes" for five-year growth in housing prices as of 2004; and the Vallejo/Fairfield metro area was in the top 10 regions on the Housing Price Index (HPI) that same year, showing a 21.8 percent increase in average home prices.<sup>8</sup>

**Local Quality of Life Issues and Perceptions** Economic trends are also reflective of (and affected by) trends in other realities, such as safety, traffic, and crime levels. Every year, various cities and towns are rated in terms of the desirability or quality of life. Factors include jobs, housing prices, crime statistics, recreational amenities, climate, honesty or friendliness of residents (subjective to be sure, but an important test of quality of life), and similar perceptions about a city or region.

### **Attributes of the Site**

Finally, we want to consider site-specific attributes. These are many and varied and include obvious as well as subtle features. For example, it has been observed that a house on a busy street will not experience increases in market value as much as an identical house on a quiet street—even when they are in the same neighborhood. Factors such as ongoing maintenance, age of the property, proximity to schools, shops and malls, recreation, and other desirable destinations, will also affect a property's value. A recreational facility, for example, may initially draw residents and lead to more housing construction due to new job creation, but ultimately the traffic congestion and higher prices may have a reverse effect on an area's quality of life. So the attributes of the site itself may be extremely negative or positive. The specific site has greater influence on market value than on the house's specific features. Thus, a property located at the end of a major airport's runway, for example, is unlikely to have as much market value as the same house on a quiet suburban hillside with a spectacular view of the bay.

Equally important in this comparison is a range of environmental issues. Among the greatest impacts is noise. While problems like flooding caused by poor grading can be mitigated, noise often cannot. It is more likely that measures will have to be taken to change the environment or



accept lowered property values due to noise. The solution to noise problems can be summarized:

*There are only three ways to mitigate noise: (1) quiet the source, (2) put more distance between the source of the noise and the receptor, and (3) build or create a barrier to the noise. It is often infeasible for homeowners to have control over quieting the source . . . and it is equally impractical to move the house . . .*<sup>9</sup>

Noise levels certainly affect property value and have to be considered in market analysis as well as feasibility phases. Some analysts believe that noise simply lowers property values and that eventually, current owners have to accept this and sell for less. However, if noise is severe enough, this may not be true. An “enticed population”—those willing to live in heavily impacted areas such as airport flight corridors—does so in exchange for property value discounts. However, the damage caused by noise and similar undesirable features of a property or area may make the potential buyer market so small that it must be discounted altogether. One appraiser explained:

*While some real estate analysts may initially believe that any potential buyer will purchase a damaged property if discounted enough, this is simply not true. To illustrate, consider a run down house in the middle of a heavy industrial area. Certainly a significant portion of the typical residential market will simply not purchase the property at any discount, as they simply will not live in such an area under any conditions and have no interest in buying, renting, or reselling such properties.*<sup>10</sup>

## **TRADE AREA ANALYSIS**

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The analyst assesses trade area by determining the source of potential tenants, factors that determine the location, and the degree to which the study is merely blunt judgment. One worthy goal is to identify ways that analytical judgment can be made more accurate and objective.

Begin by looking at existing projects. The analysts will need to estimate how many people are here today, and how many will be there when the project opens. Then, calculate how many of those households can afford the subject project. Using census data for what you define as your trade area is key, whether based on tract number or by zip code.

On the supply side, begin by studying how many housing units are

available now. Include a count of new competing projects that will be coming on line. There are more technical ways to establish trade area. For example, one author (Thrall) tells a case of determining the need for student housing. The analyst identified the address database for all 45,000 students and mapped it. The trade area was defined to be 80 percent of the students whose resident addresses were local. Next, supply was mapped by taking all apartments from lease guides for the county and building permit information.

Absorption predictions were made from looking at the way students would advance through the school, with the understanding that upper-class students would be more likely to live off campus.

The conclusion drew together all of the assumptions.

## **MARKET CHARACTERISTICS OF RESIDENTIAL PROPERTY**

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There is a tendency in some local real estate markets to consider market value in isolation, or based on outdated information. For example, if property values were rising quickly and houses were selling as soon as they were placed on the market last year, some market observers think those conditions are permanent. But since no economic cycles remain unchanged for long, in residential real estate, it is not realistic to base assumptions on past market conditions or on what is claimed by a real estate salesperson.

As with all other markets, residential real estate market value depends on many factors, both direct and indirect. The most apparent and best understood factors are demographic trends—the numbers of local residents and the growth in population in recent months and years. The market is easily observed in hindsight by examining the time properties that remain on the market; the differences between asked price and final sales price; and the local *inventory* of homes for sale. This is the number of properties on the market, compared to the monthly absorption on the market (average sales per month). For example, if a town experiences sales of 15 properties per month and there are currently 75 homes for sale, there is a five-month inventory.

These indicators are useful for spotting trends. However, today's statistics are not as revealing as they are as the latest entry in local trends. So if you see a spread between asked and sales prices shrinking, ever-lessening time on the market, and a shrinking inventory, these all are reliable indicators of a strong demand market. Because you are reviewing three specific indicators, when they all point in the same direction, they

### **CASE STUDY: SONOMA VILLERO, BOTHELL, WA**

One might assume that siting a 240-unit development of condominiums near Microsoft Redmond, Washington headquarters would find a strong demand market, especially for affordably priced units. The high employment in the area is attributed to software development, Boeing, and the Bothell campus of the University of Washington. However, competition can cause a developer to change the entire strategy.

When the 160th Street Association developed Sonoma Villero in 1997, the need for flexible marketing became apparent immediately. Because a similar development was underway at the same time close by, the developer decided to rent out units initially, with the ability to convert to ownership later on. The fact that a 209-unit condo development was being built literally across the street led to community opposition to Sonoma Villero. Partly to deal with competition and partly to respond to the NIMBY sentiment, the developer literally shifted markets, at least initially. Instead of competing head-to-head for sales of condos, the developer changed original plans and went after a rental market. Demand for rentals was strong in the area, and market rate rents averaged \$1,325 per month. Upon conversion to ownership, the condo units were affordable, especially by Seattle metro standards. One-bedroom units were about \$120,000 and three-bedroom units were about \$200,000.

With development costs through the year 2000 at just under \$33 million, the developer learned from the experience that local opposition delayed the approval process, and the local market was affected by a directly competing project. The decision to shift to the rental market and gradually transition into sales was wise, given conditions at the time. However, the change in marketing strategies also made it difficult to decide which amenities should be included. For example, interior amenities and finishes (i.e., plumbing for washers and dryers) were excluded because of lack of demand in the leasing/rental market. However, including such amenities would have helped in the condo sales market when units were converted.

are reliable confirmation of the trend. Therefore, it is far less reliable to look at only one trend to draw a conclusion about the current health of the residential market.

The problems of changing markets during the development process aside, the need to shift due to competition in the immediate area was apparent to the developer in the case of Sonoma Villero. In analyzing the market for a condo, versus the market for rentals, this is one of many factors to bear in mind: The need to shift due to competition may change the entire development strategy. Because the analyst's point of view has to be based on a market-response strategy rather than that of a would-be buyer, the entire process is quite different. If analysis is premised on what an individual has experienced in purchasing a residence as owner-occupied housing, it is unreliable. There are vast differences in market characteristics between a residence and an investment property. We must consider mortgage affordability and adequacy of a *home* as well as location, type of neighborhood, and proximity to schools and shopping. But for rental properties, we also need to calculate after-tax cash flow, potential for growth in market value, and the supply and demand features of the local rental market, that is, occupancy rates.

When we expand beyond a single investment, the question of market characteristics has to be viewed with a broader perspective. When we look at only one property, cash flow requirements can be easily narrowed down and we can estimate the likely return on investment based solely on local rental market conditions. However, when we perform market analysis for subdivisions—especially those in highly specialized markets such as low-income housing—we also have to look at a larger supply and demand market.

In larger subdivision developments, we consider the same factors as those for solitary home purchases: household demographics, employment, and transitional trends locally. However, economic factors such as the number of people living below the poverty level also have to be considered when low-income housing developments are the subject of study. Because so many of these developments are constructed with taxpayer subsidies (via tax credits), there is a tendency to gloss over the realities of market demand, or to make assumptions in market and feasibility studies that are simply false.

The most serious among these is to believe that the entire perceived local demand will be absorbed entirely by the new development. Ignoring the realities of the competition is a mistake, but one that is made commonly. This is even more subtle than the obvious comparison: If two developers are building apartment buildings in the same market, it is not realistic for

### **CASE STUDY: EAST LAKE COMMONS, DECATUR, GA**

Some developments are designed to appeal to specific, narrowly focused demographic markets. East Lake Commons is a high-density development of 67 townhouses near downtown Atlanta. It is a “co-housing” project.

*Co-housing* means just that: a sharing of responsibilities among residents. The market for this project included a diverse mixture of single people, retirees, families, and gay/lesbian couples. Residents work cooperatively through committees to manage affairs such as kitchen scheduling, financing, and neighborhood outreach programs. Meals are prepared and offered by community volunteers several times per week in the project’s community building, and residents participate on a volunteer basis. No one is required to give time.

The developer originally purchased the 17-acre site to develop HUD Section 8 affordable housing. However, local civic leaders advised the developer that they preferred market-rate housing targeting working professionals on the site. The developer, Jack Morse, recognized a marketing opportunity and identified pent-up demand in the area for a residential development offering community-based amenities. This led to a revision of the original plan and, ultimately, to the design of East Lake Commons.

To help get the project moving, the developer presold 17 units to a group interested in setting up a co-housing community. The sale helped move the project forward, generating further interest in it. At a total cost of nearly \$9.7 million, the project was completed in September 2000. It is an example of how design combines desirable features of urban living in a suburban setting.

either to assume that the entire local demand will come to their project. A realistic view may consider market share. However, a more subtle competitive view is required. A local planner, for example, who understands the market may further realize that local demand is not waiting only for newly developed housing. A portion—perhaps a majority—of those would-be tenants currently live in existing units, either other single-family homes being rented, or in other apartments. The latter tenant may want to move into a rented home because it is more desirable than remaining in an apartment. This reality indicates the real competitive condition in the market. In

fact, new construction may create an oversupply and lead to higher than current level vacancies. In that case, the entire market (counting current as well as new real estate) will experience overall higher vacancies.

Judging the current supply and demand in single-family housing is not always a simple matter of studying occupancy/vacancy rates in rental property. Nor can the entire competitive condition of the market be judged based on market statistics for owner-occupied housing. The demographic and income mix of a region determines the subtle shifts in supply and demand. In evaluating the true competitive status of today's market, an analyst has to consider:

- *The obvious supply and demand attributes.* The obvious interpretation of supply and demand in the rental market is expressed in the study of occupancy and vacancy rates as well as trends. However, confusion may arise when we mix market analysis between the two major types of single-family residential property: owner-occupied and rental property. The local mix of population will determine whether newly constructed homes are likely to be put to use as owner-occupied or as investment properties. Thus, an analysis should include a study of local owner-occupied rates by neighborhood, the mix of population (for example, is the population aging or is it dominated by college students?), and income levels. All of these affect—and in fact, create—the type of demand locally.
- *The level of demand that currently has other housing.* Most important in a local study of supply and demand is the realistic analysis of the market. Whether you are dealing with subsidized housing or market-rate developments, the level of supply has to be understood properly. For example, if a developer plans to construct 100 market-rate homes, where will the buyers come from? If there is little available on today's housing market but the population is growing, then the demand is generated as *additional* demand above and beyond the current population. However, if buyers come from the existing homeowner population, this has ramifications for the competitive marketability of the homes. As current owners sell their homes to move into the newly built homes, the inventory on the local market remains unchanged (one home is exchanged for another). There is no *real* new demand, so prices are likely to flatten out or even fall. Performing a feasibility analysis of the new development raises the question of whether the estimated pricing of properties is correct. If the basic assumption is that there is a demand for housing (based on local sales trends), the indicator is false if, in practice, people will simply replace one home with another. In addition, the population is often distinguished by levels of

income in this type of analysis. It is one thing to say the population is growing, but in which economic levels?

- *The correlation between current population trends and existing real estate.* Is the local population growing above or below the rate of new housing construction? This basic indicator is often overlooked in favor of more myopic analyses. For example, if you were to consider statewide trends rather than local trends, the result is an average of a series of dissimilar markets rather than an indication of what is going on in town. Market demand is strong only when the local population of homebuyers is growing. This does not include college students or transient population groups such as migrant workers; it also does not include *existing* homeowners. If analysis includes any of these groups, then the real nature of competition on the market will be inflated beyond the real demand levels.
- *The influence of nearby markets in terms of rental demand, employment, and price.* Even though real estate trends are always local, it is essential that an analysis considers the scope of the local market realistically. For example, one small town may be largely rural in character and be more than 200 miles from the closest city. Another city of the same size in terms of population may be within 30 minutes commute time of a large city. These differences vastly change the supply and demand factors. The difference will be seen in the price of real estate, population trends, and basic supply and demand for new housing. So it is not realistic to base a market analysis on universal assumptions using ratios between population and market demand. These are meaningless. You need to study the actual nature and mix of supply and demand based on where people work, and on how the home-buying population is growing in response to local economic change.
- *The specific property design potential buyers seek.* Over time, desirability of interior design has to change as well. In the post-World War II era, families were happy with very small houses: small bedrooms and kitchens and, if any areas were expansive, it would likely have been the living room. This may have been based on how the young married person of 1945 grew up, with family activities focused around listening to the radio together. Today, the television generation has discovered that family size is smaller than in the past, orientation around family life has declined, and people do not necessarily gather together. As a result, couples prefer adult amenities. As fewer Americans are oriented toward cooking, for example, demand for larger kitchens is not as strong today. Most affluent Americans would rather have a wine cellar than a fourth bedroom, especially if they have only one child—or no children.

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**Valuable Resource**

To get an idea of desirability in different housing features, check the matrix chart at <http://www.davisandpartners.com/newsite/ammen.html>.

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**CASH FLOW ANALYSIS OF RESIDENTIAL PROPERTIES**

The development of a cash flow analysis is the essential part of a feasibility study. If the numbers do not work out, then the longer-term profitability estimates of a project are of no value. The question, however, has to be reviewed in terms of the specific type of project, influenced by many market and competitive factors, and studied in terms of all three supply and demand markets (for purchase of property, rentals, and financing).

We need to consider the cash flow question on several potential tiers of the residential market. These include:

- Single-family homes, as solitary investment possibilities for individuals.
- A development of many single-family homes at market rate or below market rate.
- A speculative investment in one or more homes, as fixer-upper properties.
- Investment in vacation homes or second homes.

Cash flow analysis in these different types of single-family home markets is going to be vastly different, so we need to approach the issue carefully. There is no single, universal rule for how cash flow analysis is to be performed. We analyze each of these markets separately.

**Single Family Homes**

The most popular entry into real estate investing is the purchase of single-family houses to be used for rentals. The concept is simple: Rents are supposed to cover the mortgage payment, insurance, taxes, utilities, repairs, and other expenses. In practice, the strength of cash flow depends on:

- *Dollar amount of down payment and, as a direct result, level of mortgage payment.* The higher the individual down payment, the lower the monthly payment on the financed portion of the purchase. The interest rate you pay also affects the mortgage aspect of cash flow. Real estate investors may be required to put 30 percent or more down payment



into a property and may have to pay more to make the lender's cash flow analysis work.

- *Level of market rates compared to mortgage obligation.* The very basic first question individual investors have to ask is whether the *known* level of mortgage payment can be covered by market rates. This assumes full occupancy and no surprises such as unplanned-for repairs or maintenance. If the difference between rent and mortgage payment is marginal or negative, the cash flow will not work. Even when tax advantages are considered, the investor has to also plan for other expenses involved as well as with the prospect of vacancies.
- *Current occupancy rates and trend.* The health of the rental market should dictate the timing of real estate investments. The widespread belief that it is smart to invest in rental property should be questioned; if the current market demonstrates soft demand, that means higher than average vacancies and the possibility that rental income levels will trend downward from today's market rates.
- *Deferred and ongoing maintenance on the property.* If investors buy "bargain" properties—usually meaning those that have not been maintained—this also means it will be necessary to perform repairs. It may be that the demand for such repairs could offset any discount gained from seeking out bargain-priced properties, perhaps even making the feasibility negative as well.
- *Tax advantages involved.* An after-tax cash flow is the most reliable method for analyzing cash flow on individually purchased property. However, each individual is limited to annual deductions of \$25,000 or less in losses from real estate, so as a tax shelter this offers value, but limited value. An exception: The real estate professional as defined by the tax rules is not limited to \$25,000 in annual losses. But the point to remember for many first-time investors is that tax benefits may define the difference between feasible and nonfeasible investing, so these benefits cannot be ignored. The method used to value land influences the tax calculation, perhaps significantly. Land cannot be depreciated, so the value assigned to land also affects the annual depreciation deduction. An investor may prefer more depreciation to maximize tax benefits, or less depreciation because losses are limited and that extra deduction provides no annual benefit.

Allocation of value between improvements and land for the purpose of calculating depreciation is done in several ways. These include prorating on the basis of assessed value, insurance-based value, and appraisal-based value. All of these calculations have merit, but if an individual purchases more than one rental property, the same basis should be used in each case.

## **Developments of Single-Family Homes**

Cash flow calculations for developments are, of course, far more complex than for single home investments. A developer has to consider design and engineering costs, approval and the possibility of legal fees involved in a challenge to the development, and construction costs of a project. These costs may include constructing new utilities, streets and sidewalks, landscaping, street lighting, traffic mitigation costs, environmental impact mitigation, and a range of other possible costs, all in addition to basic construction of new homes. The cash flow analysis for a development is complex because it involves so many possible levels of cost; furthermore, the financing of a development varies based on the type of property.

**Cash Flow for Market-Rate Housing** The feasibility study for development of market-rate housing is often aimed at satisfying lender's questions. The lender must be convinced that the developer will be able to sell homes at an adequate profit to cover the mortgage obligation at the very least. A cushion of profits ensures that the development will be feasible, given the possibility that additional costs will arise beyond the known, estimated cost levels. When a developer runs out of money before completion, this presents a special problem for the lender. Refusing to loan more funds means that less will be recovered; however, giving the developer more money when the initial estimates were inaccurate could present even greater risks. So cash flow analysis for market-rate development has to include a demonstrated market demand, experience on the part of the developer in successfully completing similar projects, and the timing of completion that will ensure repayment of the construction loan before interest expenses absorb profits.

**Cash Flow for Subsidized Housing** The cash flow analysis for low-income housing includes the same range of questions. However, a lender may be involved only in a limited way. Developers are more likely to use one of the many taxpayer-supported subsidized programs, with the idea of funding the large capital portions of the project (running new utilities, streets and sidewalks, street lighting, traffic signals) through selling of tax credits to investors. Approval of subsidized programs requires that housing be kept as low-income for many years, but developers rarely retain projects and manage them; they are more likely to sell off the properties as soon as final approval has been achieved. So among the possible costs of a subsidized housing development may be performance bonds a municipality will require with the likelihood that the developer will not be around during recurring maintenance cycles; the cost of finding likely buyers for projects;

and the possibility of having to absorb vacancies for a period of time if the local demand market is not strong enough to keep all units filled—an unlikely event, but still a possibility. (The developer in this situation may make a convincing case in the market study to show that demand is high, but when it comes time to rent out housing, the market realities may result in chronically high vacancy levels. This affects cash flow *and* the ability to sell the project for top dollar on the market.)

### **Fixer-Upper Properties**

An interesting variation on single-family property investing is the purchase of run-down properties. The idea is to use *sweat equity*—the work performed in completing repairs—to bring the property's value up to market rates. This concept works when the cost of repairs is less than the appreciation in market value. Thus, cosmetic repairs—including painting and landscaping, for example—are easily completed at minimal cost but with the greatest potential for creating increased value.

The problem with the fixer-upper market is cash flow. If an investor holds onto a property for six months, the cash flow calculation is not limited to only the difference between discounted purchase price and market value, offset by the cost of repairs. The calculation also has to consider the six months' mortgage payment. When margins are thin or, when the improved property does not sell quickly enough, a minimal profit is easily wiped out.

Two alternatives many investors have tried are rental conversion and living in the property. In the rental conversion plan, repairs are done as quickly as possible after closing the deal, often in one month or less. The property is then rented out and held as a long-term investment. Because the property was purchased below market rates, the idea here is that cash flow will be healthy. Because the new owner charges market rates for rent, cash flow is positive and allows a cushion that would not otherwise be available. So the cash flow calculation in this instance is made as modified rental investment. The assumption here is that the repairs can be completed in a reasonable amount of time. Renovation projects are more prone to cost overruns than new construction.

The calculation is even easier when the investor moves into the property during a period of repairs. Because the individual has to pay either rent or a mortgage payment, this eliminates the duplication of negative cash flow. After repairs are completed, the house is sold or converted to a rental and the investor moves on. While this idea has merit on paper, it may prove stressful for other family members. Not only is a family expected to live in the middle of the chaos of repairs, they are also required to

move frequently, as one project is completed and another begun. The idea solves the cash flow problem, but may not be practical for other reasons.

### **Vacation or Second Homes**

A final type of investment requiring cash flow analysis is the second home. Many people purchase a cabin by the lake, a timeshare, or a house in a different climate. All of these ideas appeal to those who want to spend time on vacation, but the question of cost has to be considered as well.

A *second home*—defined as a part-year primary residence, for tax purposes—is partially subsidized through tax benefits. Individuals can deduct interest expenses and property taxes as itemized deductions on both their primary residence and a second home. This reduces the after-tax cash burden, but not entirely. The individual is still left with ongoing mortgage payments as well as taxes, insurance, and maintenance. One possible solution is to rent out a second home for that portion of the year it is not used as a second home. This provides a prorated tax benefit, because the property can be depreciated for the part of the year it serves as a rental. The owner can also deduct utilities, interest, insurance, taxes, and other expenses as investment expenses. So it is possible to create rental income to cover the costs of owning the second home for part of the year, and also to create a partial tax benefit at the same time. The problem with this plan is often one of timing. If the owner wants to vacation at the same time as everyone else, there is a good chance that the off-season will see low demand. One solution is to vacation at the second home during the off-season and get higher market-rate rents when everyone else wants to be at the beach, in the mountains, or at the Mexican resort.

## **LOCAL OPPOSITION AS A MARKET FACTOR**

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The phenomenon of organized land use opposition adds to the cost of development, often considerably. It is even possible that a group of local citizens can prevent certain types of development from taking place.

The Not In My Back Yard (NIMBY) movement has to be considered as a possible cost factor, notably for single-family housing aimed at low-income renters or buyers. Also called Locally Unwanted Land Use (LULU), Build Absolutely Nothing Anywhere, Not Anytime (BANANA), and Citizens Against Virtually Everything (CAVE), antigrowth forces often present ridiculous arguments against development. While such groups may oppose any form of development, rezone, or change in local land use policies, trends in recent years have been toward a focus on low-income housing. As

one of the more important forms of development risk, organized NIMBY movements should not be overlooked. A survey of developers revealed that in terms of risk, “three common refrains were meeting governmental and utility regulations, dealing with neighbor complaints, and correcting unforeseen environmental problems.”<sup>11</sup>

All of these risks can and should be anticipated and mitigated in advance. The NIMBY problem should not take a developer by surprise if the market survey is completed thoroughly—even when a project has real or perceived social impacts. The NIMBY movement has come about largely due to the increase in development trends aided by major changes in the tax law in the Tax Reform Act of 1986 (TRA), and through the creation of Low Income Housing Tax Credits (LIHTC). The greatest argument NIMBY groups make is that low-income housing reduces property values for surrounding properties. This argument has great appeal to local residents, and often leads to petition drives, letters to the editor and to the local public hearing file, and direct testimony. In some instances, local political approval may move the entire question to the courts, adding cost and delay to any development process.

### Valuable Resource

Several studies support the argument that low-income housing does not adversely affect property values of nearby homes. Some examples can be found at:

[www.fhfund.org/educational\\_materials\\_reports.asp](http://www.fhfund.org/educational_materials_reports.asp)—*A Study of the Relationship Between Affordable Family Housing and Home Values in the Twin Cities*, Maxfield Research report.

[www.enterprisefoundation.org/](http://www.enterprisefoundation.org/)—*Affordable Housing and Property Values*, The Enterprise Foundation.

[www.abag.ca.gov](http://www.abag.ca.gov)—*Myths and Facts About Affordable and High-Density Housing*, California Planning Roundtable.

[www.habitat.org](http://www.habitat.org) *Why Affordable Housing Does Not Lower Property Values*, Center for Common Concerns.

<http://www.mcaws.gov.bc.ca/housing/housing.htm>—*The Effects of Subsidized and Affordable Housing on Property Values: A Survey of Research*, State of California.

[www.uic.edu/aa/cdc](http://www.uic.edu/aa/cdc) *Affordable Housing Design Advisor*, University of Chicago.

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As effective as the arguments are for protection of local property values, the facts reveal that low-income housing development does *not* reduce property values nearby. In fact, numerous studies have concluded that property values rise or, at the very least, remain unaffected, when low-income housing development occurs.

The concerns among NIMBY groups also go to increased traffic or crime, noise, loss of trees, and other amenities. In other words, NIMBY opposition grows from change. Such movements gain a lot of momentum from poorly designed development, from situations in which developers' actions do have adverse impacts locally, and when local planners do not enforce zoning laws, comprehensive plans, and other regulations.

The best way to deal with antidevelopment sentiment is by acting in a preemptive manner. The vast majority of momentum NIMBY groups achieve derives from lack of information. However, withholding plans from citizens is illogical. A developer's plans will be known soon enough, but if information is not available, all sorts of worrisome rumors find their way to neighborhood meetings. In one situation, plans for a large 200+ acre site were to build a truck-to-train intermodal facility. A well-organized local opposition group formed with limited initial success. However, when the group's leaders began spreading a rumor that developers planned to site a landfill on the property, the antidevelopment sentiment picked up speed, and financing. In that situation, the developer needed to get the land rezoned, and the rumor was based on a reading of the local code which, among other uses, allowed light industrial zoning, which included landfills.<sup>12</sup>

Developers who announce their lands in advance defuse much of the opposition that is likely to center around a project, especially in the environment where dependable information is not available.

### **CASE STUDY: SNOW HILL CITIZENS FOR DECENT HOUSING**

In Worcester County, Maryland, this organization originally proposed a low-income housing project in 1995. It was defeated in a local referendum. In 2000, the group tried again, but first took steps to provide information about the proposed 24-unit housing plan.

The effort included brochures that were mailed out to residents; ads in the paper; and canvassing, both door-to-door and via telephone. The group also made the convincing argument that 42 percent of residents in the city of Snow Hill would qualify to live in the units based on income levels.<sup>13</sup>

Similar outcomes have been achieved in other places, largely due to an effort by developers or by organizations sponsoring low-income projects, to educate the public in advance or to hold community meetings to explain development plans. This is especially effective if people are invited to make suggestions to improve a project's amenities or design. In 2002, a nonprofit organization met virtually no opposition to building a 400-person homeless shelter in downtown Minneapolis. This was the result of community meetings early on and before the process began, in which a citizen suggestion for a design change in the building's façade was accepted.<sup>14</sup>

Rather than accept the alternative of extended battles, often involving expensive lawsuits and years of delay, including the possibility of rejection of plans for development, it makes far more sense to prevent such problems as an organized NIMBY movement, before it begins. Developers and market analysts also should keep in mind that even a ludicrous argument may prevail in a land use dispute. In one instance in Florida, opponents to allowing a homeless "safe zone" on 14 city parcels argued that allowing homeless people to have a safe zone would negatively impact sea life! The city's attempt to elicit comments from local residents included sending out 840 invitations to a public meeting concerning the issue. City officials were confronted by a hostile group they described as Not On My Island (NOMIs).<sup>15</sup>

It is also essential to test the mood politically in a community *before* coming forward with plans for a low-income housing project, or for that matter, any new project. That includes not only elected officials, but the heads of agencies, politically active citizens, and the person in charge of the planning department. All of these groups have an interest in planning and in land use issues. Advice to developers and builders worth heeding includes the observation that

*while NIMBY opposition to affordable housing projects may be traditional, it isn't inevitable. Project sponsors can reduce or even avoid community resistance to affordable housing by taking a strategic, proactive approach to community relations.*<sup>16</sup>

Single-family housing is best-known to most people because they either own homes, or because they would like to buy a home one day. Those individuals who analyze investment properties—either solitary home investments or more complex subdivisions—need to realize that investment properties and developments have numerous market attributes that make this property vastly different from the market for owner-occupied homes.

## Multi-Unit Rental Property Analysis

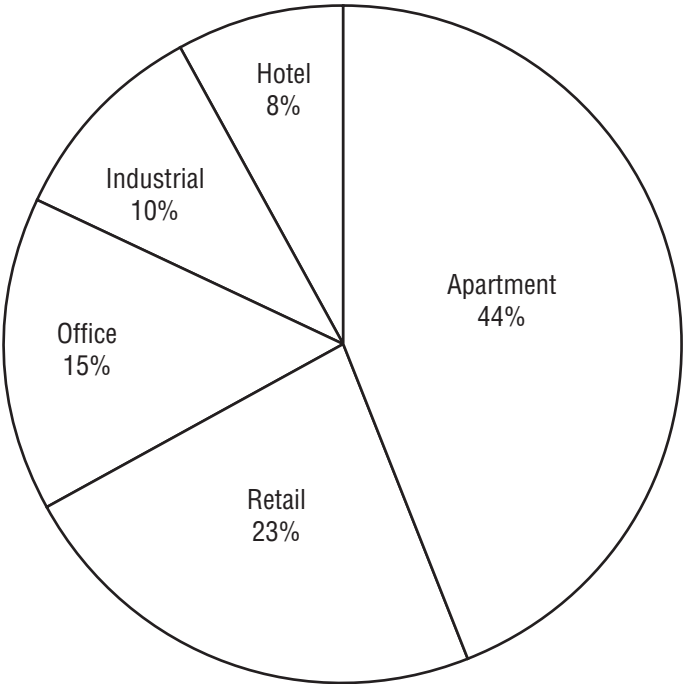
*Multi-unit developments compete not only with other developments, but also internally between units. Competition is driven by the amenities that a project offers, the size of the units, and the project's distance from retail, recreation, health care services, and places of work. In addition, there are specialty residential projects such as senior, disability, and low-income housing that compete both in the larger market and in their specialty submarkets. This chapter examines these complex issues and provides a context for analysis based on area-specific and developmental factors.*

**A**nalysis of multi-unit residential real estate is more complex than analysis for detached, single-family housing. The reasons for this include the variable of the demand market for apartments and similar multi-family units; and the complexity of analyzing actual demand locally, given the competitive market conditions and trends.

The market for apartments and other multi-unit projects is huge. The overall value of property (excluding single-family houses) in the United States, in 2004 was \$5.275 trillion, of which 44 percent consisted of apartments.<sup>1</sup> The breakdown among apartments and other types of property is summarized in Figure 5.1.

There is a tendency to view the market inaccurately, in many ways. For example, it is popularly believed outside of New York City that virtually all apartments in the city are rent controlled. This myth is fostered in many venues, including a recurring gag line in TV sitcoms. Someone dies and, upon being informed, a friend's first question is, "Who is getting his apartment?"





**FIGURE 5.1** Real Estate by Property Type, 2004  
*Source:* Society of Industrial and Office Realtors.

The truth is not as extreme, however. With more than 2 million rental units in New York, only 2.8 percent are rent controlled.<sup>2</sup> In fact, rent controls at any level are very rare outside of New York City.

Inaccuracies abound about many other urban markets. For specific projects, the analyst should remember that conclusions about market demand may be inaccurate, and it is a common error to base demand assumptions on the idea that a project will receive 100 percent of the current demand. Neither of these assumptions are accurate.

*Current demand* is the sum of all potential tenants currently seeking rentals in apartments or similar multi-family units (two, three, or fourplex projects, for example). One easy way to identify demand is by checking local waiting lists among existing apartments and housing agencies (Housing Authority, HUD Section 8 offices, and other agencies set up to seek and provide housing, especially for those individuals and families whose income is below local averages).

The problem with using such lists to identify demand is that any conclusions will be exaggerated. Many people on waiting lists currently occupy apartments locally. So this is not actual demand but would result in a shift between local units. This variety of demand results in additional vacancies somewhere in the same local market. Newer units are likely to generate interest especially if existing units cost about the same market rates; people like to move to newer units with better amenities. However, in larger perspective, demand identified from waiting lists is not reliable.

A more accurate measurement of demand forecasting should be based on local population trends, in comparison with new unit construction. For example, if the population has been growing by 5 percent per year and new apartment and housing starts have matched that increased demand, the market generates new demand that is easily quantified—assuming the analyst is also able to perform this study based not only on population growth, but also on growth by income levels. However, population alone does not necessarily justify an argument that a particular project is in demand, because we also have to understand that demand in the context of competing projects. How many competing apartment and housing projects are underway, and when will they be completed?

*Market share* is the degree of new demand a project will be likely to absorb. The tendency to assume that a new project will meet all of the new demand is simply unrealistic. If a study of recent population growth is supported by a healthy job market, we may identify a demand next year for 200 additional apartment units. However, if we build those 200 units, we cannot reasonably expect that *all* new demand will come to that project. If other builders are currently building 150 units, it may be reasonable to make an argument that our project will be justified by 25 percent of the demand (50 out of 200 new tenants, based on trends and forecast tenant growth).

A study of current demand and market share may not be entirely reliable, again based on the specific attributes of an area. It may be possible, through location selection, amenities, and design, to *expand* the local market and to attract tenants from outside of the apparent market area, that is, the geographical market.

## **THE LOW INCOME HOUSING MARKET**

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One important market in the rental industry is low-income housing. Congress, recognizing the importance of providing incentives to developers to include low-income units in larger programs or to willingly devote entire projects to this specialized market, enacted a Low Income Housing Tax Credit (LIHTC) program as part of the Tax Reform Act of 1986 (TRA).

## **CASE STUDY: THE YARDS, PORTLAND, OREGON**

The riddle we answer here is: How do you attract markets from outside the area? In other words, why should someone move to a specific city or town and occupy units in a newly developed building?

The Yards is a community of about 600 affordable and market-rate apartments in the River District near Portland, Oregon's downtown. Portland is unique in the sense that specific neighborhoods retain their individual characteristics even though a part of a larger city. The River District is just north of downtown and—before redevelopment—was characterized by empty lots, vacant warehouses, and industrial sites like the large postal distribution center two blocks up from the water.

Complicating redevelopment, the site was contaminated with diesel and petroleum products as well as hydrocarbons, lead, and arsenic. Some of this contamination was found as deep as 10 feet. A total of 100,000 cubic yards of contaminated soil had to be treated or removed. Development was aided through a low-interest loan by the Portland Development Commission, augmented by the sale of tax-exempt bonds to provide construction and permanent debt. Further tax incentives are provided for the low-income aspect of the development through low-income housing tax credits (LIHTCs).

Fortunately, the neighboring Pearl District, which once was a primarily industrial area, also went through a transformation. Today this area includes art galleries, restaurants, and small boutiques as well as several developments of luxury condominiums. Demand in this and other areas of Portland with close proximity to downtown, has been high during recent years. Most of the project (four out of five phases) was finished by December 2002 and occupancy has remained steady at about 95 percent.

This project has demonstrated that proximity to a downtown area, consisting of affordable housing, can and does attract new market share from outside of the immediate and obvious existing market. Many people have relocated to The Yards, both from California and the Seattle areas to either semiretire or to change location while continuing to work. In this example, the combination of attractive location and price redefined the market. It enabled the developer to achieve a high occupancy rate by appealing to tenants beyond the immediate area.

As of 2004, this program has assisted in development of 1.6 million affordable apartment units to qualified families. Incentives for developers usually are provided in the form of tax credits, direct reductions in tax liabilities. Tax credits are transferable and can be used to finance the infrastructure of low-income housing projects, thus serving as a type of financing. On average, these tax credits finance 40 percent of total development costs.

The incentive has worked. Today, 40 percent of all multi-family developments include some level of qualified LIHTC units. The rules require one of two standards: Either 20 percent or more of apartments in a development must be occupied by tenants with incomes below 50 percent of median income; or at least 40 percent of units must be occupied by those whose incomes are at or below 60 percent.

The cost (measured in reduced tax revenues) is approximately \$6 billion per year. Current issues being debated are one provision allowing states to allocate LIHTC resources to areas where they are most needed, and basing eligibility on statewide standards rather than on those standards in one area within the state. Objections to this proposal include concerns that states would possibly use LIHTC provisions to control where low-income housing could or would be built. Even so, the proposal is supported by many advocacy groups throughout the country.<sup>3</sup>

LIHTC incentives can induce developers to construct housing for low-income families while also helping cities and counties to encourage residents to move to new areas where affordable rental units are available, even in major metropolitan areas.

## **FACTORS AFFECTING MULTI-UNIT MARKET ANALYSIS**

In studying the local market for multi-unit housing, the question of demand is central to identifying feasibility. How many units will be needed by the entire market? What portion of that demand should we expect to absorb? And *when* is that demand apparent in the local market?

These questions identify aspects of the *absorption analysis* process. Within market analysis, absorption refers to all forms of real estate; however, for multi-family housing in particular, absorption should involve a study of demand aspects. The most important among these is the expectation of occupancy level and timing. When do we expect to achieve maximum occupancy? This question should further take into

mind the issue of *where* the market exists. So a market area study should include a realistic analysis of the real supply and demand market. Using strictly geographical miles-based arbitrary assumptions is not reliable. This analysis should include a study of traffic patterns relating to commute, location of regional and local jobs, transportation issues (public as well as auto-based transportation patterns), and the proximity from the site to schools, shopping, and other local amenities. So to simply identify the market area as existing in a ring of five miles from a site is rarely accurate. The shape of the market is not likely to be round, but is more likely to follow development and roadway factors, location of jobs, and the competitive factors—existence of competing or planned apartments within that realistic market area.

Absorption is an estimate of not only the occupancy level, but the timing as well. Certain events that delay completion of a project will directly affect the estimates, including complications in local approval of permits; labor strikes and other work-related problems; or unforeseen events that no one could possibly predict. In such instances, developers may need to find ways to give incentives to tenants through reduced rents, for example. One striking example of this was the first new development completed in lower Manhattan following the September 11, 2001, attacks on the World Trade Center.

### **CASE STUDY: THE SOLAIRE, NEW YORK**

This development includes 293 apartments and contains 383,000 square feet in 27 stories. Total development costs were \$120 million. Completed in 2003, this is the first “green” residential high-rise and the first project completed in the post-911 Zone I section of lower Manhattan, also called Battery Park City. The project is called “green” due to its innovative design incorporating energy-savings and environmental state-of-the-art features, marketed with the invitation to “live healthy, live green.” Design and engineering translate to 35 percent less energy use and 67 percent reduction in electricity during the hottest summer months.

The unforeseen events of September 11 naturally lead to the question of whether the original feasibility assumptions concerning occupancy of these residential units remain valid. The site is only two blocks from the site of the World Trade Center. However, even with

**CASE STUDY: THE SOLAIRE, NEW YORK (Continued)**

this in mind, the complex is 90 percent occupied as of the end of 2004. Original projected rents were higher than the current levels between \$2,200 and \$6,700 per month. High occupancy was aided by grants provided by the Lower Manhattan Development Corporation, reducing rents by up to \$12,000 (payable in increments of \$500 per month) as incentive to sign leases by May 31, 2003. In spite of predictions concerning lowered market rents and high vacancies in lower Manhattan following the 2001 attacks, Solaire reports annual rents of \$47 per square foot.

The developer, the Albanese Organization, Inc.—<http://www.albaneseorg.com>—is located in Garden City, New York. As part of the design, the building's tenants have access to an exercise room, aerobics room, children's playroom, a rooftop garden, and a green roof system to help insulate the building. Also provided: storage for up to 150 bicycles.

Recalling that this project's feasibility predated September 2001, it is not surprising that following the attacks, the lead construction lender withdrew from the project and new sources of financing were required. This was achieved in February 2002, when Congress approved the issue of tax-exempt Liberty Bonds. Developer Albanese was the first to receive funds through this program, in the amount of \$120 million. The September 2001 disaster and changes in the financing structure of the project caused a nine-month delay in construction, adding \$9 million to the total cost.

This project was completed successfully as measured by occupancy and rental rates. This has occurred in spite of the September 11 disaster and the building's proximity to Ground Zero. The combination of replacement financing and lease incentives offset the original concerns. Superior design certainly supports rental levels, which are not surprising by Manhattan standards; the incentives provided for signing leases further aided in completing the initial absorption for this property. Developers were faced with several initial problems: proximity to the World Trade Center, loss of original financing, and expensive delays in completion. Even so, they were able to revise their plans and create financing and lease incentives to offset what had been lost.

Any projections concerning occupancy in a project are going to be uncertain. The unknown elements in an extreme case—as we saw with The Solaire in New York—are certainly not typical. But even if a project is not sited two blocks from the World Trade Center, market analysts must expect some surprises.

One would use as a starting point the analysis of current supply. In beginning to approach the analysis of supply, be aware that there are specific kinds of supply: existing, under construction, and proposed (permitted). It is not adequate to merely count existing units in an area, because it may be that under construction and proposed units will drastically alter the supply, thus affecting the feasibility of the proposed new project. A skilled analyst should know how to weigh each of these as part of the study.

A realistic evaluation of the overall supply makes sense because, clearly, a comparison between existing supply and perceived demand, *should* reveal whether the project is feasible and whether occupancy assumptions are supported. However, it is equally important to remember that the issue of occupancy is not based solely on existing supply. Today's supply is a snapshot in time, but it will look far different when a project has been completed. We point once again to the extreme example of The Solaire to make this point. To some degree, it is important to allow for changes in the supply element. So if we are studying the feasibility for a project to be completed in one year, the completion issue will be far different from the same issue for a project planned for completion three years from now.

The ability to forecast supply and demand in three years is elusive in comparison to a one-year time frame. So the further away the estimated completion date, the less reliable the occupancy estimates. A one-year forecast period—at least for purposes of identifying emerging competition for the same market share—should not be difficult. However, because supply is more easily pinned down than demand, there is a tendency to place emphasis—perhaps too much emphasis—on the supply side, even in the short term. To elaborate:

*In the short term, new supply is not (or should not be) a surprise. Even in cities with limited local construction, the quantity of new apartment completions in the next 12 to 18 months can be estimated closely enough to make informed decisions. And supply risk is tangible, readily visible just from driving by construction sites. Instead, the stealth forces—the factors that sneak up and surprise—lie on the demand side of the market equation.<sup>4</sup>*

While estimates should be as broadly inclusive as possible, the analysis should consider supply *and* demand with equal weight. Furthermore, it

makes no sense to limit the analysis to only the obvious tenant market. For example, will a particular apartment complex be aimed at a market-rate tenant only? Or will some units be set aside for low-income, handicapped, or specialized markets? In urban centers, for example, many buildings generally geared toward family tenants also serve the growing corporate apartment market. The size of this business is considerable, according to the experts:

*Corporate apartments [were] a \$2.2 billion dollar industry in the United States in 2000. . . . This emerging segment is particularly interesting to multi-family housing owners and operators because 76 percent of corporate apartments are leased inside traditional multi-family complexes.<sup>5</sup>*

The need to accurately forecast is a basic problem in all forms of budgeting and forecasting. However, considering the maximum potential market area range is also crucial to accuracy in the forecast. Estimating future occupancy is easiest when we are looking at a short period of time and becomes increasingly unreliable as we look further into the future. At some point, the variables make the process little more than guesswork. So a market area with its economic and demographic trends is rarely exclusively reliable. We need to depend on a collection of many data to draw a *reasonable* conclusion concerning occupancy in the distant future. These include the trends in population, job market, transportation patterns, housing and rental prices, and other local statistics. While the demand for owner-occupied housing is entirely different from the demand for apartment units, the trends in housing may serve as a useful indicator in estimating future occupancy. If prices are flat and a large inventory of homes are for sale, we may assume that rental demand is also likely to be affected. As owners find they cannot get a desired price on the market, they may decide to wait until those market conditions change. In this situation, many of today's owner-occupied houses may be converted to rentals. And as an increased number of houses become available at market rates, there is an effect on apartment rentals as well. The overall market (for housing and, as an effect, for apartments as well) is affected more by current interest rates than by almost anything else. The various effects are not always indirect or obvious, because the demographic is not the same between ownership and rental markets, and neither are market rates. Many people living in apartments simply cannot afford to buy or rent a house; however, there is a segment of the market that is willing and able to afford to rent a house (or duplex, triplex, or fourplex unit) and prefers that over apartment living. As the volume of housing rentals



increases, some level of demand for apartment units is reduced. Thus, absorption may require more time *and* occupancy levels may be lower as well. The timing, level, and *net rental demand* of the market ultimately determine and define feasibility in terms of occupancy levels one should expect. Net rental demand

*means balancing the growth of rental households against the expansion of the rental stock. Although new rental communities may derive renters from existing communities through turnover, interpreting those moves as demand can lead to high vacancies in the overall market, which eventually will affect the subject project as well as the rest of the rental stock.*<sup>6</sup>

In attempting to identify likely occupancy timing and level, this is one of many factors worthy of consideration. It makes sense to include a reduction of total occupancy levels to allow for the competition from other apartments, multi-unit housing, and single-family housing.

Another factor making it difficult to project occupancy into the distant future is the unknown of competing apartment projects. Even in a market with very strong demand, competing developments are likely to be built to meet that demand. And units finished earlier than the subject project will get a share of the then-current demand, leaving less for later-completed projects. It is more likely that occupancy estimates will be made when a developer has a specific target date in mind. Supply analysis as well as demand analysis is usually limited to a one-year period, with the unknown quantities beyond 12 months a determining factor in how (and why) extended analysis is of little practical value—especially if the analysis is to be used to obtain current financing, determine appropriate design, and most importantly, to decide how many units to construct.

Some types of real estate can analyze supply and demand more easily because they are able to presell occupancy. Retail projects, notably malls, begin with long-term lease commitments from anchor tenants, and, once those commitments are in place, gaining additional leases is far easier. It is likely that lease commitments will be well in hand indicating at or near 100 percent occupancy, even before a developer closes the deal with lenders or investors. Thus, other aspects of the analysis, specifically cash flow, are more easily and more confidently estimated, even years in advance. The same benefit is not always possible in single-family residential real estate. It is unlikely that a future tenant will be willing to commit to a long-term lease a year in advance. It is unlikely that a majority of tenants will be able to make such commitments even a few months before move-in date; the majority of interested tenants will want to move into units as soon as pos-

sible. In comparison, both houses and condo units are often presold based on viewing models or other existing units.

## **CASH FLOW ANALYSIS FOR MULTI-UNIT HOUSING**

Cash flow analysis depends upon occupancy assumptions, and this is where the uncertainty lies. The initial market and feasibility study—often performed at the planning stage—are based on current market conditions such as occupancy rates, market rent levels, and the current job market. We go forward assuming that those initial assumptions will be valid in the future; however, conditions may change. Once a project's completion is to occur within one year, cash flow analysis is far easier and more accurate.

It may be that neighboring markets will be built in response to development closer to city and town centers. As a result, today's potential tenant may find better prices further out, which also affects the market analysis. One writer has observed that this

*important intermarket relationship is often overlooked; the changes in market occur because of changes in the extent to which neighboring markets are built out. As a local market area gets an increase in units approaching the holding capacity . . . the price tends to rise, and buyers shift to the next outlying area.<sup>7</sup>*

This predictable tendency—the movement of competitively priced units into ever-farther out locations—may lead an analyst to an inaccurate conclusion. Upon realizing that local rental rates have gone up, the analyst may conclude that this is good news in terms of cash flow analysis; in other words, more revenue will be earned. However, the flaw in this conclusion is that the initial analysis used a particular occupancy rate and presumed time for absorption, neither of which remains accurate. In addition to rates rising as tenants move farther out, a related trend occurs: the tendency toward lower overall occupancy, as a factor of competing market rates in other neighborhoods, where rents are lower.

Cash flow analysis has to consider issues beyond the initial assumptions concerning occupancy. Because the analysis involves dynamic rental markets, the analyst needs to not only anticipate the trend and its ramifications for the subject proposal, but also to identify the likely steps needed in response. These may include lower market rental rates, more attractive lease terms, or the addition of amenities that tenants will find desirable—all designed to bolster the occupancy rate to compete within the current trend.

While the identical market analysis problems apply to subdivisions, the apartment market is more subtle, because two different supply and demand markets are involved (market value *and* rental demand). In the typical cash flow analysis for subdivision housing, a form of “risk diversification” occurs because, upon completion, units can be sold individually on the market, or even presold when demand is high. Thus, a subdivision development is often able to finance its own cash flow without the need for gap financing. Presales usually pay off existing construction loans, and later sales are available for the developer’s use. This eliminates the common risk of scheduling delays, causing higher interest expenses and debt service. In the case of apartments, which are *rental* units rather than buy-and-sell products, such advantages are not available in either case. They cannot be prerented, and there is no available after-market generated from sales (the exception, of course, is when a developer is able to presell an apartment development, which eliminates the typical interim cash flow risk). Some developers also have profitable relationships with REIT managers and other institutional investors who do not want to develop their own projects, but who have a voracious appetite for newly built projects.

The analysis should not be limited to rental gross income and occupancy, either. Basic real estate investment value is an important part of feasibility. Are land values reasonable today and, based on a study, what types of growth are likely to occur if the subject land is utilized for multi-unit development? Some analysts and appraisers assume that desirable location automatically translates to advantageous land profits when development occurs; this is not always the case. It may be flawed to merely assume that appropriate zoning (or a rezone) creates an automatic investment advantage. For example:

*Zoning, as it translates to highest and best use, is the area where we see some of the major errors made by appraisers. When you have a diminishing asset (i.e., the availability of direct oceanfront properties), having a “multifamily” zoning designation may not translate automatically into the development at allowable density as the highest and best use.<sup>8</sup>*

Since both land values (and increases in such values) *and* rental income affect future appraised value, both have to be considered during the initial feasibility phase. With potentially higher than expected vacancies, disappointing changes in land values, or a longer absorption period in play, the cash flow issue becomes not only more complex but also more difficult to quantify. Thus, the analyst needs to manage the analysis by tracking the

market during the development phase. If the cash flow assumption has been based upon market and feasibility studies, a concern develops on two fronts: the potential that the market has changed, as well as the potential that assumptions in the initial studies were flawed.

A *changed market* is likely if and when completion of the project runs over the initial schedule or if the market itself is moving through a rental demand cycle rapidly. We have provided one example, when rents in the immediate area rise due to scarcity, so the tenant market moves to adjoining locales, eliminating demand. It is ironic, in fact, that one motivating factor may be rising demand in the immediate area of the proposed apartment complex to be developed. In performing the cash flow analysis, it is important to be aware of how a predictable tenant base will act. The rising rents, in fact, are not positive indicators for cash flow; but there is a limit to its effect. Some tenants will not passively remain in the area and pay higher rents, but will move to more affordable markets. These may be only a few miles removed from the project site, but the market forces behind the migration are easily tracked: Higher rents lead to softened demand.

*Flawed basic assumptions* include a belief that the subject project is going to absorb all identified demand; that the demand is itself unchanging; and that the demand exists when it may not. These potential flaws in assumptions have been explained previously. However, putting together these three assumption-based problems may lead to a serious cash flow shortage. We may cast these three elements (inclusion of all demand, a static demand assumption, and softness in *real* demand itself) in another light, identifying three cause-and-effect aspects to the causes of flawed assumptions:

1. *Failure to understand the components of demand.* The market analyst who simply seeks out statistics in support of a premise that “there is a need” for a project, misses the point. Demand certainly may exist, but so does competition. In real estate, everyone gets the same good idea at the same time. If analysts cannot identify any potential competition, they are not looking hard enough . . . or it is not a good idea.
2. *Lack of recognition of the dynamic nature of supply and demand cycles.* When we say that a market is “cyclical,” this means that it moves. More to the point, the market changes elusively. We cannot identify the timing by which a cycle strengthens or weakens, or reverses the current trend. While this is a troubling aspect of forecasting, it is also the most interesting. The key to effective cash flow management is being able to provide for “worst-case” outcomes in recognition of the uncertainties in cyclical timing, and at the same time devise a practical forecast that is useful to developer as well as to lender or investor.

3. *Failure to recognize that demand, in fact, does not really exist.* The most drastic error in the basic supply and demand analysis is to document the wrong factor. It is easy to prove that various apartment complexes, housing agencies, and governmental advocacy groups have waiting lists for housing. It may even be possible to document issues such as local homelessness, transient populations, or families living below the poverty level. None of this data is useful, however, in identifying the current level of demand. Because the population of potential tenants is itself complex, we cannot find it easily. When concert tickets go on sale, we can see a line disappearing around the corner, so we know that the concert will be sold out. When property is listed for sale and three offers are received on the first day, we know that demand is very high in that price range. However, we cannot assign the same visibility to demand for apartment units.

The fact that many people on waiting lists (1) live elsewhere, (2) have found living accommodations since adding their names to a list, or (3) have moved away complicates this entire question and makes list-watching the most unreliable method for defining current demand (not to mention identifying what demand may be a year from now). In recognizing that the list-watching method is not reliable, the astute market analyst will turn to recent housing and apartment starts, job creation, changes in population, and similar statistical data to estimate demand. Interest rates are valuable, too, as a tracking device. High interest rates mean more rental demand. As rates rise, more people substitute rental housing for owner-occupied housing. So a list alone does not tell the whole story; we also need to discover *why* a list is growing or shrinking. While lists are easier to find, we must also recognize that they are not reliable as indicators of actual demand. The combination of high occupancy in existing complexes, coupled with ever-present lists is one strong indicator of continuing demand; but that alone does not reveal the trend adequately to serve as a reliable, final answer.

Because the cash flow projection relies on the accuracy of a future occupancy level and absorption time, we need to utilize the local economic and demographic trend data, in addition to occupancy levels (and waiting lists). Clearly, if local apartment complexes have weak occupancy rates, no waiting lists, and declining markets for prospective tenants, there is no way to justify the feasibility of building more apartments. However, all this reveals is that low-demand markets are more easily recognizable than are high-demand markets.

Even when we *know* that demand exists, we cannot easily quantify the level of demand, the strength of the trend, or the level of com-

petition; to discover the scope of these factors, our cash flow analysis has to be more inclusive of all the supply and demand factors at work in the existing market as well as within the trend.

## **THE OCCUPANCY ISSUE IN MULTI-UNIT CASH FLOW ANALYSIS**

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Cash flow and all of the assumptions that go into it rely upon accurate readings of the local real estate market. The analysis of cash flow and developing estimates of likely future occupancy levels is no easy matter. The chief economist of the National Multi Housing Council (Washington, DC) has observed that

*knowing how a local economy is performing does not necessarily give a good indication of how the local apartment market, or any other property market, is performing. Differences in apartment-specific demand and supply conditions can weaken the link between the local economy and the local property market.<sup>9</sup>*

This observation has profound ramifications for the real estate analyst. If there is no direct connection (necessarily) between the local economy in general, and the local property market, how is a cash flow projection to be developed? What data can be used reliably to make the projection realistic, and to support that projection with rational assumptions?

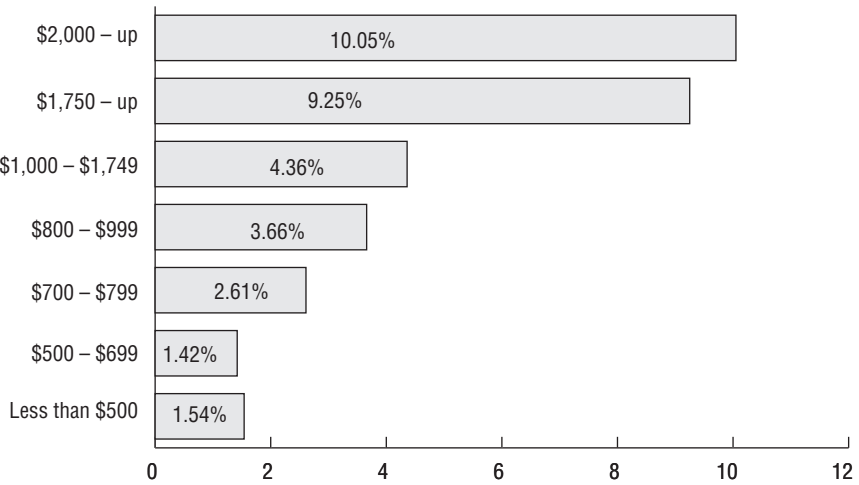
In fact, estimating near-future occupancy and vacancy trends is more accurately done using performance data—indicating trends in market rent levels as well as in occupancy within a specific market. A correlation between these two trends—rent increases and vacancy rates—may provide the most reliable trend in estimating cash flow for an apartment project. Such information is useful only if applied within the same region as the project itself; because every region's trends are unique to that region, it makes no sense to use average rates involving the entire country or many regions. For example, an article in a Las Vegas newspaper compared one-year changes in average market rates and concluded that in many regions in Nevada and California, rates dropped (in California's San Francisco, Riverside, and San Bernardino counties, for example).<sup>10</sup>

While such regional data is of limited value and often outdated by time of publication, other local sources are useful for obtaining up-to-date information—not only on average rental rates, but also on occupancy trends. For estimating cash flow, the most reliable and meaningful analysis is a comparison between market rate trends and occupancy trends.

The two indicators do not necessarily confirm each other. In fact, rent increases and trends in occupancy/vacancy provide dissimilar types of market indicators. A popular theory states that in a strong demand market, we are likely to witness a combination of low vacancies and rising rental rates. This seems logical; however, long-term studies indicate that the pattern does not always come out according to this theory concerning the dynamics of supply and demand. In some cases, the highest average vacancy rates also report higher than average rent increases.<sup>11</sup>

Furthermore, the analyst should be sensitive to the likely correlation between the range of apartment costs and vacancy rates. There is a tendency for vacancies to increase as rental levels grow. For example, a trend in New York City demonstrates the consistency of this phenomenon. The lower the rent, the lower the vacancy rate, as shown in Figure 5.2.

The indicators causing rent increases are limited not only to response to local occupancy trends. While occupancy is one of the factors involved—recognizing that when demand exceeds supply, rates tend to rise—there are many others as well. For example, even a very localized study of a single metropolitan area may involve numerous dissimilar markets, based on income, rental levels, and amenities. We have already observed that as rents rise in the immediate area, tenants may move farther away. In the case of a large city, this move may consist of an additional bus or subway stop, an adjoining neighborhood, or the next suburb over, only two or



**FIGURE 5.2** More Affordability = Lower Vacancy Rates  
*Source:* New York City Housing and Vacancy Survey, 2002.

### **Valuable Resource**

To find links to local information concerning MLS offices, occupancy rates in a particular area, and market rent trends, check <http://www.mls.org/>.

three miles away. In urban areas, the population is likely to be more dependent on public transportation than in more rural areas, so availability of transit sites may be more of a factor when residents use such amenities.

A study documented by Jack Goodman showed two large cities, Houston and Philadelphia, reporting high vacancy rates, but also reporting higher than average rent increases in the same markets.<sup>12</sup> This type of long-term data is valuable, as it includes information on both rent increases and vacancy rates. However, such studies also tend to be outdated by the time the analyst discovers them; and again, the data does not provide clear answers to the question of how cash flow estimates can be supported with current information.

More likely sources for current, local data would include regional landlord associations, lenders, real estate brokerage firms, and Multiple Listing Service (MLS) offices.

Amenities will also act as incentives in certain types of properties. This is especially true in the planned gated communities popular around Phoenix, Arizona, such as Scottsdale and Chandler; and in central Florida.

Today's tenant is willing to trade living space for specific and desirable amenities, such as nearby or on-site recreational outlets. While many

### **CASE STUDY: THE VILLAGES, FLORIDA**

This central Florida development takes up 5.2 square miles. While the latest reported population was 11,828 (2000 Census), approximately 45,000 people live in the immediate area in owner-occupied or rented housing and multi-unit retirement and senior accommodations. This development combines gated communities with recreational facilities, notably a series of golf courses. However, with additional development *near* the villages, traffic congestion and travel distance to the courses are becoming a problem. The popularity of the closest golf

*(Continued)*



**CASE STUDY: THE VILLAGES, FLORIDA (Continued)**

course has made getting a tee time quite difficult, so additional courses are developed periodically, each one farther away than the last. It appears to the visitor that the majority of local residents use gas-powered golf carts rather than automobiles, to travel to and from the attractive central shopping area.

A visitor to The Villages notices at once the confusing array of apparently endless gated communities, acting as satellites around various golf courses. Because the courses cross roadways and local residents seem permanently attached to their gas-powered golf carts, this is a world apart from the more urban settings so familiar to most other Americans. In fact, there is a tendency among golf-playing residents to forget that some people continue to use the automobile. It is a common occurrence for golf carts to dart across roadways with their drivers oblivious to the danger afoot even in a 25-mile zone. Accidents are not uncommon, including car-to-cart as well as cart-to-cart mishaps.

The planned community continues to expand, even though road and golf course congestion have worsened over time. Located only 50 miles from Orlando and 75 miles from Tampa, The Villages is located in the very middle of Florida. Besides golf and local shopping, residents are within an easy drive of The Villages Regional Hospital and at least two medical centers, all within 20 miles. It is also about 50 miles to the Orlando or Gainesville airports. Web site: <http://www.thevillages.com/>

Described by a local travel guide site—<http://www.city-data.com/city/The-Villages-Florida.html>—as an “active 55+ adult community,” recreational emphasis includes golf and other physical sports, health and fitness, and even bowling. The immediate area also boasts a staggering 153 Red Hat Society groups within The Villages (chapters of ladies aged 50 and over who meet monthly to plan events, web site <http://www.redhatsociety.com/>), which may be a record for a single area. This serves as a good indicator of semiretirement aged trends in this and similar planned communities.

The key feature of The Villages is the connection between active retirement and recreation. The median house value (as of 2000) was a relatively low \$136,000, with median household income \$42,542. This is an affluent mostly white (97.2%) population able to choose recreational amenities as close as possible to home, and that defines the development. One visitor observed that residents of The Villages were typically “a bunch of stressed-out senior citizens breaking their necks in pursuit of leisure.”

\* \* \* Free Preview End \* \* \*

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