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1. Growth and Development of the Hotel-Motel Industry

Origins of the Lodging Industry

The hotels and motels we know today evolved from small, one-room, private dwellings that served merchants as early as 500 B.C. From this modest beginning, the hotel industry has come to play a vital role in the development of trade, commerce, and travel throughout the world.

The first record of innkeeping law is found in the code of Hammurabi, who ruled Babylonia in approximately 2000 B.C. The code sets forth specific regulations for the operation of Babylonian taverns and inns, including corporal penalties for watering down the beer. In this period, taverns and inns were prevalent throughout Greece, Italy, Egypt, and Asia. Greek taverns were frequently located near a temple for easy preparation and transportation of sacrificial animals. These establishments provided travelers with food, drink,

and sometimes a bed. The Olympic Games, which were begun in Greece in 776 B.C., involved travel for both spectators and players, creating a demand for accommodations.

During the rise and fall of the Roman Empire, travel for pleasure became possible due to good roads, stable government, economic prosperity, and increased leisure time. Educated, affluent Romans vacationed in Greece and toured Egypt. An excellent network of consular roads and post houses was developed to handle this increased travel demand.

After the fall of the Roman Empire in A.D. 476, travel and trade decreased significantly. The Middle Ages was a time of unstable politics and danger on the roads. Religious travelers were common, however, as the church increased its dominance. Religious orders provided accommodations for travelers in monasteries and the hospices, or inns, they operated. Most trips during this period were pilgrimages to holy sites or journeys to fight in the Crusades, which began in A.D. 1095 and lasted approximately 200 years.

In the thirteenth century the innkeepers of Florence, Italy, formed the first hotel guild. Guild members interviewed visitors at the city gate, assigning foreigners to certain lodging facilities and local visitors to others. Most guild members did not own their hostelries; they rented them under three-year leases from the city.

A resurgence in the demand for lodgings started in England during the Industrial Revolution (1760) when the British government arranged for mail to be delivered by coach. A nationwide posting system was created and a network of posting inns was established to accommodate the young postboys and provide a change of horses. Travel by coach became fashionable and long coach trips gave rise to overnight lodging demand and the development of the English inn. These lodging facilities, forerunners of the modern motel, were located on coach trails to provide refuge for weary travelers and protection from highwaymen. Accommodations in these inns typically consisted of individual, unheated rooms with straw beds for the nobility and common

sleeping areas on stone floors for their servants. Travelers and local townspeople alike enjoyed hearty food and drink.

The American counterpart of the English inn was the colonial inn and tavern. Such inns sprang up in seaport towns and along stagecoach roads and canals. In addition to providing travelers with overnight accommodations, colonial inns were often public gathering places used for courts of law, town meetings, and school classes. Massachusetts recognized the importance of inns to statewide commerce and passed a law penalizing any town that did not provide this convenience.

The following description of a colonial inn illustrates how far American hostelrys have come in 200 years:

Accommodations often meant sleeping on the floor of the "long room," with one's feet turned toward the fireplace and one's head on a rolled-up coat, alongside a dozen or more other persons of

both sexes. It meant a quick cold-water wash in an outdoor basin and gingerly use of a communal towel. A warning blast on the landlord's cow horn meant all hands to table, ready to tackle breakfast with fingers and knives. ¹

Over time the accommodations provided by colonial inns gradually improved in response to the needs of a mobile, restless society and American innkeepers assumed their place as important community figures. Samuels Coles of Boston, who opened one of the first taverns in America, became a leading church member and a steward of Harvard University. Because inns functioned as centers of political and social activity, their owners and operators enjoyed a high profile in the community.

The First Hotels

¹ 1. Leslie Dorsey and Janice Devine, *Fare Thee Well* (New York: Grown Publishers, Inc. 1964), 4.

The first hotel constructed in the United States was the 73-room City Hotel, located at 115 Broadway in downtown New York City. Completed in 1794, the City Hotel was enormous compared to colonial inns and served as a model for similar establishments in Boston, Philadelphia, and Baltimore.

Boston's first hotel was the Exchange Coffee House (1806), which boasted seven stories and 200 rooms, many overlooking a five-story, domed interior courtyard (a fore-runner of the atrium concept). Philadelphia's first hotel, the Mansion House, was built in 1807. Baltimore followed, opening the Baltimore City Hotel in 1826. Each of these properties was larger and more lavish than its predecessor and became the focus of civic pride.

During the 1800s hotels moved westward and flourished in major American cities and towns. The Tremont House in Boston started a trend toward luxury accommodations by offering unheard-of services and amenities: private guestrooms, doors with locks, a washbowl with a water pitcher and free soap, bellboys, French cuisine, and an annunciator system that allowed the front desk to contact guests in their rooms.

Spurred by the success of the Tremont House, hotels across the country attempted to outdo each other in size, luxury and inventiveness. In 1836 the Astor House in New York City installed steam-powered pumps to send water up above the first-floor level so that plumbing could be installed on upper floors. The New York Hotel, built in 1844, was the first hotel to provide private baths connected to some of its bedrooms. The Buffalo Statler, built in 1908, included private baths in all of its guestrooms. In 1835 the American Hotel in New York City was the first to have gaslight throughout the building. Edison's electric light was first installed in the public areas of the Hotel Everett in 1882 and the Sagamore Hotel, which opened in 1883 on Lake George, New York, was the first to have electric lights throughout. In 1894 the Hotel Netherlands in New York City installed the first hotel telephone system. The Fifth Avenue Hotel in New York City was the first to have elevators, an innovation that later enabled hotels to be constructed as high-rise structures. The first fully air-conditioned hotel was the Detroit Statler.

As the number of hotels increased, many properties faced the prospect of rapid obsolescence and a consequent loss in value. The City Hotel, for example, became obsolete in 15 years due to competition and was converted into an office building 38 years later. The trend-setting Tremont House was closed for major modernization after 20 years of operation and was considered a second-class property during the last two decades of its 65-year life. Today hostelries face similar problems because of constant changes in modes of transportation and customer preferences as well as competition from newer properties.

The hotels of the mid-1800s followed the railroads westward, and ornate, luxury properties were constructed at major rail centers: the Palmer House in Chicago (1882), Brown Palace in Denver (1893), and the Palace in San Francisco (1875). Hotels became status symbols, and cities tried to outdo each other by building larger and more expensive facilities. In many cases the hotels developed far exceeded existing or potential markets.

In addition to luxurious city hotels, resort hotels were introduced as new rail lines enabled affluent Americans to travel on vacation. Spas, which were considered the first American resorts, were opened in Saratoga Springs, New York (Grand Union Hotel) and White Sulphur Springs, West Virginia (the Greenbrier). Other grand resort hotels built during the 1800s were the Hotel Del Coronado outside San Diego, California, the Ponce de Leon in St. Augustine, Florida, and the Broadmoor in Colorado Springs, Colorado.

Travelers who could not afford luxury accommodations usually were forced to stay at rundown roominghouses, which offered only minimal services and cleanliness. As rail transportation became affordable and more middle-class people began to travel, a new type of hostelry was needed to fill the gap between luxury hotels and roominghouses.

E. M. Statler recognized this demand and built the nation's first modern, commercial hotel in Buffalo, New York. When the Buffalo Statler opened in 1908, it offered many revolutionary conveniences: private baths, circulating ice water, full-length mirrors, overnight laundry, and free morning newspa-

pers. Statler's slogan, "A room and a bath for a dollar and a half," put clean, comfortable transient accommodations within the reach of millions of Americans and increased the interest in travel among the middle class.

Prosperity, Decline, and Renewal

The economic prosperity of the 1920s produced one of the greatest hotel-building booms in America's history. Encouraged by rising occupancy rates, which exceeded 85% in 1920, hoteliers expanded existing properties and constructed hundreds of new and larger facilities. During this period the number of available hotel rooms in some cities doubled with the addition of large convention properties. Chicago's 3,000-room Hotel Stevens (now the Chicago Hilton) opened in 1927 and was the world's largest hotel for more than 35 years.

During the Roaring Twenties, hotel promoters set up shop in towns and cities throughout the United States and sold local residents on the idea that real

estate was a sound and safe investment vehicle. Their sales pitch was not based on economic feasibility, but on civic pride and a chance to raise neighborhood or personal prestige. In some cases local merchants were promised patronage from hotel guests if they invested in the project. Seldom did an independent expert prepare a market study and appraisal; instead, the class, size and design of the facilities to be built were frequently determined by the amount of money that promoters could raise. In these "community-financed" hotel projects, real estate bonds for first and second mortgages were sold to members of the community. In many cases the financing structure involved high leverage and an inordinate amount of risk. The financing fees and commissions charged by promoters tended to be very high and were usually paid as soon as the financing was in place, so that the promoters had no vested interest in the performance of the hotel.

Beginning in the mid-1920s, *Hotel Management* magazine, a trade publication now known as *Hotel and Motel Management*, published articles by several industry spokespersons warning against "over-hoteling." They urged professional hoteliers to tell the public the "real facts" about hotel occupancy

levels and financial condition to offset the exaggerated stories that had circulated earlier in the decade and contributed to overbuilding. To illustrate the extent of the problem, a nationwide survey was conducted in 1928-29 by an objective body, the Engineering-Economics Foundation. This postgraduate institution in Boston performed the research, quantifying hotel room supply, guest demand, occupancy levels, rates, and hotel failures from 1919 to 1928. They found that nationwide occupancy had dropped from 85.5% in 1920 to 67.6% in 1928. At the same time room rates appeared to be fairly constant, but the Foundation claimed that additional services had to be provided to guests, which effectively lowered the rate achieved. The number of hotel failures also illustrated a downward trend, with 64 reported in 1924 and 112 in 1928.

The Depression of the 1930s put an end to new construction and sent more than 80% of the nation's hotelries into foreclosure or receivership. By 1933 one-third of the country was out of work and the gross national product had dropped almost in half. Both commercial and leisure travel came to a virtual standstill, and the average national hotel occupancy fell to just over 50%.

Although the Depression forced many hoteliers out of business, it offered those with cash the opportunity to expand their holdings by purchasing distressed properties from receivers and lenders. Parties who had taken debt positions in the original financing structure found themselves owning a piece of the hotel after it was foreclosed. These parties included both institutional lenders and individual investors who had purchased mortgage bonds through public subscriptions in the 1920s. None of these investors were knowledgeable about hotel operations and all were eager to sell the properties or their shares to any willing buyer at greatly reduced prices. This created an exceptional opportunity for those who understood the hotel industry and had some available cash or credit.

Typical purchase terms for failed hotels required a small cash down payment from the buyer with the lender providing a restructured debt component for the balance of the purchase price. During the Depression prominent appraisers warned investors not to value hotels based on the assumption that the prevailing low levels of income would continue into perpetuity; they projected future earnings to turn around in three to five years. For the U.S. hotel in-

dustry, the Depression lasted longer than anticipated because of the severe overbuilding that had preceded it and the lack of commercial and pleasure travel during the 1930s.

During the Depression several hotel companies significantly expanded their holdings, which provided the impetus for the establishment of national hotel chains. Conrad Hilton began his lodging chain in 1919 with the acquisition of the 40-room Mobley Hotel in Cisco, Texas. During the 1920s he purchased and developed a total of eight hotels throughout the state of Texas. Because his hotels were highly leveraged, Hilton lost three of his properties during the Depression, but by 1935 profits from oil leases provided him with the cash to satisfy his creditors and to fund new purchases. Hilton took control of the Sir Francis Drake in San Francisco, the Town House and Rosslyn Hotels in Los Angeles, and the Roosevelt and Plaza in New York. In 1945 Hilton was able to acquire the Palmer House in Chicago for less than \$20 million, although it cost more than \$25 million to build in 1929. In that same year, Hilton acquired the Stevens Hotel in Chicago for about \$8 million; that hotel was

built in 1925 for \$30 million. In 1942 Hilton bought the Waldorf-Astoria bonds for 4.5% of their original value.

Ernest Henderson founded the Sheraton hotel chain in 1937 with the purchase of the Stonehaven Hotel in Springfield, Massachusetts. Although he was inexperienced in hotel operations, he understood real estate and the use of leverage and had some cash available. He took advantage of the depressed hotel prices of the 1930s and early 1940s and the readiness of sellers to negotiate. By 1941 his company had acquired four more hotels and was on its way to building one of the nation's largest lodging chains. Henderson believed in leveraging his cash position and acquiring hotels with a minimum amount of cash, sometimes negotiating with sellers to take back second mortgages in return for higher selling prices.

Leading hotel companies such as Hilton and Sheraton were able to overcome the fears of bankers and other lenders who were wary of independent developers and hotel investments in general. With fire sale prices and very favorable financing terms, strong hotel companies with prominent names and

proven track records were able to continue their expansion. In some cases the hotel chains guaranteed their mortgages by putting all their hotel properties up as collateral. This strategy enabled them to borrow 60% to 70% of fair market value of the property.

It was not until the early 1940s that the US. hotel industry started to recover. By this time the general economy had improved and the hotel room supply had been significantly reduced by closures. What really revived the hotel industry was the onset of World War II. The massive movement of defense industry workers, military personnel, and their families created an unprecedented demand for transient accommodations, and the national occupancy level soon exceeded 90%. Although most towns and cities needed more lodging facilities during this period, there was little new hotel construction because financing, materials, and labor were unavailable.

Financing for new hotels was unavailable because lenders and investors were still wary of risk after the downswing of the Depression. In some areas the hotel room supply was actually reduced because hotels were converted into

housing for the troops. Properties such as the Hotel Stevens in Chicago and the Greenbrier in West Virginia actually served as barracks during the 1940s.

Labor and material shortages during the war years made it difficult for hotels to maintain a high standard of service. It was common for guests to wait hours in hotel lobbies only to find that no rooms were available. At one point New York City hotels had to limit guests to a stay of three days.

The 1950s marked the beginning of a radical change in transportation. The railroad, which had served travelers for more than a century, began to lose customers to the more economical automobile and the faster airplane. The technology developed during the war helped produce a more affluent population that enjoyed shorter work weeks, more leisure time, and a new freedom to travel. The "mobile society" was born, and an increasing number of people took advantage of the convenience of highways and airlines.

Sites directly across from downtown railway stations, which were once considered prime hotel locations, quickly became less desirable and economically obsolete. A more informal lifestyle was developing, and the traveling public seemed willing to sacrifice luxuries such as doormen, bellhops, valet parking, and evening turndown service in exchange for less expensive rooms.

The Birth of the Motel

A new type of highway-oriented lodging facility offering inexpensive, "no-frill" accommodations was needed to meet the needs of travelers and, in 1950, the modern motel was born. Although the origins of the motel can be traced to the relatively primitive tourist cabins of the 1930s, the motels of the 1950s offered much better facilities.

Most early motels were one-story, wood-frame structures built on slabs with approximately 20 to 50 units. Their modest rooms had inexpensive furnishings, particle board walls and ceilings, tile floors, small baths and metal

shower stalls, and radios. Few motels at this time provided food and beverage service or meeting rooms.

Although motels were spartan compared to most hotels, they became competitive because of their convenient highway locations, ample free parking, and low rates. The motel market included vacation travelers (especially young families and senior citizens), salesmen, middle managers, and government employees. Operating statistics for the 1950s show steadily declining hotel occupancies, but stable occupancy levels for motels. Because the number of motel rooms was increasing at the time, motels obviously were beginning to capture a transient market previously monopolized by hotels.

The first motels were radically different from hotels with respect to size, construction costs, land values, operating ratios, and management requirements. The distinction between hotel and motel has lessened, however, due to a variety of factors:

- Motels began to increase in size with additions to existing properties and more total units constructed for new properties.
- Motels joined referral groups and franchises to obtain national images and greater exposure.
- Motels started offering more amenities: television, air-conditioning, shag carpeting, tile baths, telephones, swimming pools, restaurants, lounges, meeting and banquet rooms, and gift shops.
- Motels began providing more services: 24-hour telephone switchboard and front desk attendants, nationwide telephone reservation systems, acceptance of credit cards, direct-dial guestroom phones, and morning wake-up calls.

- Improved building techniques were introduced, including the use of concrete and steel, pre-assembled units, and high-rise construction.

By the mid-1960s, most new motels offered all the facilities and amenities typically available at hotels. At the same time, hotels were modifying their operations to compete with motels. The result was a gradual merging of the two types of properties into a new type of facility known as the motor hotel. Motor hotels combined the services and facilities of hotels with the convenience of motels.

Although independent motels and motor hotels flourished throughout the United States, their potential guests had little idea of what to expect when they pulled off the highway. Standards of service and quality varied and guests were frequently disappointed. Kemmons Wilson recognized this problem when traveling with his own family and saw it as an opportunity. In 1952 Wilson started a new era in the hospitality industry by founding Holiday Inns, one of the earliest motel chains. Holiday Inns offered guests a modern

motel with standardized service, a recognized name, and moderate prices. Starting with four motels near Memphis, Tennessee, in the early 1950s, the Holiday Inn chain grew to more than 100 motels nationally by 1960. This tremendous growth was accomplished by selling franchises to individuals who would operate the properties as their own businesses. The first Holiday Inn franchise was sold in Clarksdale, Mississippi for \$500 and a flat fee of \$.05 per occupied room. In return for these payments, the franchisee received the Holiday Inn name and logo, architectural plans, training and operation manuals, and national advertising. In 1964 Holiday Inns launched its Holidex I reservation system and a major benefit was added to the franchise package. Kemmons Wilson was overwhelmed with franchise applications.

During the 1950s the supply of motel rooms nationwide increased from 600,000 to 1,500,000. Several factors contributed to this large increase. The first was the passage of the Interstate Highway Act in 1956, which laid out a map for the growth of highways and thus roadside motel sites. Those traveling on interstate highways bypassed motels on state highways and these older lodging facilities rapidly succumbed to external obsolescence. A second

factor contributing to the increased motel supply was a change in the income tax laws in 1954, which permitted real property owners to use an accelerated method of depreciation. This led to a period of readily available cash from "tax-based" hotel deals. In such deals, syndicators offered investors participation in hotels and the benefits of large depreciation and interest expense deductions to offset income in the early years of the investment. Franchising was the third factor contributing to the growth in the supply of motel rooms during the 1950s. The ability of developers to benefit from the name recognition of motel franchises enticed many non-hoteliars into the business.

Lodging Chains

Several new lodging chains were established in the late 1950s and early 1960s. The Marriott Corporation, formerly known for its food service business, entered the lodging industry in 1957 with its Twin Bridges Marriott Motor Hotel in Arlington, Virginia, outside of Washington, D.C. Marriott is now the largest operator of hotels in the United States.

In 1957 the Pritzker family of Chicago diversified its holdings by entering the lodging industry with the purchase of the Hyatt House at the Los Angeles International Airport. Hyatt is now a leading operator of convention hotels. Hyatt hotels are best known for their spectacular atrium lobbies.

In 1954 the Howard Johnson Company, known for its restaurants, opened its first motor lodge. By 1959 the Howard Johnson name was already on 75 motor lodges, both company-owned and franchised. In the mid-1950s Marion Isbell and his associates began acquiring motor hotels in the Southwest. By 1962 they had formed the Ramada Inn chain.

In 1962 the Carlson Companies, founded by Curtis Carlson, acquired the Radisson Hotel in downtown Minneapolis to initiate that company's diversification into the hotel business. The company began purchasing and renovating inner-city hotels in the Midwest and operating them under the Radisson name.

International activity by American hotel companies became prevalent in the 1960s. Inter-Continental Hotels Corporation, a Pan American Airways' subsidiary which was established in the late 1940s with the opening of the Inter-Continental in Belem, Brazil, continued to develop hotels in Latin America. Hilton Hotels, which had been operating the Caribe Hilton in Puerto Rico since the late 1940s, established their Hilton International division in the 1960s, expanding their operations into Europe and South America.

A move toward vertical integration within the airline and lodging industry occurred during the 1960s as several large airlines acquired or merged with hotel companies. Trans World Airlines purchased Hilton International Corporation. United Airlines purchased the Western International chain (now Westin Hotels). American Airlines started purchasing and developing their own hotels under the name of Americana Hotels. As of now, all these relationships have been terminated, showing that the ownership synergy between the travel and lodging industries is not as strong as was once believed.

Arrival of the Budgets

As the motel evolved into the motor hotel, it began to lose one of its primary competitive advantages--price. By providing more facilities and services, motels were forced to charge higher rates. This created a void at the low end of the room-rate scale and precipitated the creation of the "budget motel."

Budget motels were introduced in 'the late 1960s and flourished during the building boom of the early 1970s. These hostelryes offered accommodations at prices substantially lower than the prevailing rates of first-class motor hotel chains. To offer this discount, budget motels take advantage of lower initial investment costs, operating efficiencies, and high volume.

Lower Initial Investment Costs

The initial investment costs for budget motels are lower because these facilities have smaller guestrooms, minimal public space, lower land costs, and a simple, no-frills design. The quality of construction, however, is not reduced.

Guestrooms in budget motels average 250 square feet, while rooms in conventional motor hotels typically contain 335 square feet. Smaller rooms reduce construction costs and interior decorating expenditures and less land is needed to build a budget motel. Budget motels eliminate low-revenue public areas such as meeting and banquet rooms, large lobbies, extensive food and beverage facilities, and executive offices.

Because the size of the facilities is reduced, budget motels require approximately 1.6 acres per 100 rooms, compared to 2.5 acres per 100 rooms for conventional motels. Additional savings can sometimes be realized by utilizing secondary locations such as land off an interchange or a short distance from the prime commercial/office area. Most people traveling on a budget are willing to drive a little farther for a better price.

Budget motels are planned for the efficient use of materials and space. Guestrooms are double loaded (back-to-back) and constructed on concrete slabs with cinderblock walls between rooms. Modular construction has been successfully used in some areas. Landscaping and decoration are kept to a minimum.

Many budget motels are built with construction specifications and standards similar to those of conventional motor hotels. Operators realize that inferior materials and building techniques may produce initial savings, but are a poor choice in the long run when repair and maintenance expenses are considered.

Operating Efficiencies

Compact facilities and fewer guest services contribute to operating efficiencies and result in lower expenses. With smaller guestrooms and reduced public space, budget motels require less cleaning and maintenance and can be

more efficiently heated and lighted. Some budget chains use maintenance teams that work at several properties, performing routine repairs and preventive maintenance.

The elimination of bellmen, elaborate food and beverage facilities, room service, entertainment, the acceptance of credit cards, and other services reduces payroll and operating expenses. Major savings are realized on food and beverage service; in budget motels cafeteria and coffee shop service is typical. Often a budget hotel will lease adjacent land to a restaurant chain to avoid any involvement in the food service business.

Price, location, and good value for the traveler's money tend to generate high volume for budget motels. The main reason travelers select a budget motel is price. As with any product that has an elastic demand curve, a reduction in price increases volume. Operating results substantiate this premise --i.e., budget motels typically operate at higher occupancy levels than surrounding conventional properties. Many budget motels are purposely located next to higher-priced hostleries to attract price-conscious travelers.

Although budget motels economize in many areas, they tend to provide clean, good-quality guestrooms. The rooms contain comfortable beds, full baths, color television, standard furnishings and fixtures, and cheerful drapes, bedspreads, and wall coverings.

From an investment or valuation perspective, budget motels are often vulnerable to the adverse effects of increased expenses and decreased occupancies. Because of its lower price structure and similar fixed costs, a budget property generally has a higher breakeven occupancy level than a standard motel. Appraisers must consider this greater risk when projecting income and expenses and determining a proper capitalization rate.

The 1970s Hotel Boom

As budget motels began to inundate the market in the 1970s, the entire lodging industry experienced the start of a construction boom reminiscent of the

1920s. Many factors contributed to this period of expansion and later led to its demise.

New construction was sparked by the enormous amount of financing made available by all lenders, particularly real estate investment trusts (REITS). These high-leverage finance companies were created to allow small investors to participate in real estate mortgages and equities. The concept was quickly accepted by Wall Street, and soon billions of dollars were available to finance real estate projects. Many lenders became so overwhelmed with new money that their underwriting procedures broke down and some marginal developments were approved.

During the late 1960s and early 1970s, hotel companies were actively expanding their chains through franchising. Franchising was a source of new capital for hotel franchise companies, allowing them to grow and achieve national recognition using the franchisee's financial investment in individual properties. Some franchisors, eager to demonstrate sustained growth and become national in scope, employed questionable marketing tactics to sell new fran-

chises. Many of those selling franchises were compensated based on the number of franchises sold, so there was little incentive to discourage developers from investing in poor locations and overbuilt markets. Many lenders and hotelry developers were led to believe that a national franchise would guarantee a successful operation.

The combination of readily available financing and aggressive hotel chains eager to sell franchises resulted in overbuilding and the development of many poorly located, undercapitalized hotels managed by inexperienced owners. The bubble burst on the lodging industry when inflation caused construction costs and interest rates to escalate; the 1974 energy crisis drastically reduced travel, and the accompanying recession curtailed business trips, conferences, and conventions.

Operators of marginal properties quickly fell behind in their mortgage payments, and lenders were forced to foreclose. As lenders became hotelry owners, they either organized workout departments headed by experienced hoteliers or engaged professional hotel management companies to assume

operational responsibilities. Sales data indicate that lenders who were looking for quick sales to remove non-performing hotel assets from their books had to lower their sales prices substantially to attract all-cash buyers. Lenders who were willing to hold on to foreclosed hotels and employ professional management to reposition and improve the properties' operation were generally able to recoup their original investments in three to five years as the hotel industry started to recover. However, even lenders who repositioned their properties had to take back favorable purchase-money financing to sell the properties because money from other sources was not available.

History has shown that, during economic downturns, hotel values generally do not fall in the same proportion as their declining incomes. Sellers, particularly lenders who take back hotels through foreclosure, are not always willing to sell at substantially lower prices. They are more likely to wait out the downward cycle and dispose of their assets when the market starts to rebound. Therefore, appraisers can best reflect market behavior by projecting out a facility's net income to a point of recovery and applying the proper discounted cash flow procedure over this time period.

The end of the 1970s was a period of relative calm for the lodging industry. Because most lenders were recovering from the financial wounds inflicted by the 1975 recession, they had little interest in making hotel/motel mortgages. New construction was restrained, consisting primarily of additions to existing properties and the development of some large, downtown, convention-commercial hotels. The rebirth of center city hostelrys was a direct result of fuel shortages and the availability of government financing for inner-city redevelopment projects. Highway-oriented properties, on the other hand, were adversely affected by escalating gasoline prices and decreased automobile travel. These lodging facilities lost some of their appeal among investors and hotel companies.

Decreased building activity combined with the normal retirement of older hostelrys from the lodging market and an improving economy created a favorable supply and demand relationship and record-high occupancy levels in 1978 and 1979. Average room rates increased rapidly as hotel operators took

advantage of the excess demand to recoup earlier losses and keep up with inflation.

The 1980s - A Decade of Change

During the 1980s the U.S. lodging industry experienced significant change. Another massive building boom took place, several new types of hotels were introduced, and hotel chains began to increase their product lines through segmentation. The industry started to focus on the global hotel market after foreign investors acquired several U.S. hotel chains and many individual properties. Use of the hotel management contract became the dominant means of operation for most publicly traded hotel companies.

After the decline in new hotel development during the late 1970s, the environment appeared suitable for a period of renewed hotel expansion. However, the Federal Reserve tightened the money supply in the 1980s, sending the

prime interest rate up to record levels. Most of the projects that were in the preliminary planning stages but lacked sensible financing were put on hold.

Eventually monetary and fiscal policies, along with declining energy prices, were successful at reducing the national rate of inflation. This produced a downtrend in hotel interest rates beginning in 1983 and suddenly massive amounts of capital were available for real estate investments. Hotel developers, effectively out of the market since the mid-1970s, rushed to create new projects. They were aided by several major real estate development incentives: favorable industry trends, readily available debt and equity financing, and unique income tax benefits designed to stimulate real estate growth.

Lodging industry trends during the early 1980s were favorable for new hotel development. Many markets showed relatively high occupancy levels, hotel room rates were generally able to keep up with inflationary price increases, and the travel industry was expected to boom as a result of a healthy economy. National demographics characterized by affluent baby boomers, two-income families, and more leisure time further fueled developers' optimism.

As in the past, sellers of franchises were aggressively signing up new prospects using product segmentation to justify the saturation of a market with a common brand.

This time financing was readily available from the savings and loan industry. After recent deregulation, these banks were permitted to lend on commercial real estate such as hotels. Although savings and loans had experience in making real estate loans on single-family homes, most had little expertise with commercial properties, particularly hotels and motels. The result was almost identical to the real estate investment trust fiasco the decade before. Loan underwriting and administration was inept and sometimes nonexistent; the quantity of loans made seemed more important than the quality of the real estate and the integrity of the borrower; and short-term monies were often being used to finance long-term mortgages.

On the equity side, the money raised for hotel developments and acquisitions generally came from syndicated limited partnerships. Most of these ownership structures were devised to take full advantage of the generous tax bene-

fits allowed for hotel real estate. Initially, the majority of hotel syndications were relatively small and the equity raised was less than \$10 million dollars. Later, however, Wall Street investors saw the opportunity to make huge fees from selling these equities, and pools of hotels were packaged together and sold to investors in \$100,000 units. Some of the larger packages attracted more than \$100 million in equity. Everyone wanted to invest in hotels, particularly when the property was a prominent, trophy-type hotel or the sponsor organizing the partnership was a major hotel company. A number of the syndications sold out in minutes and some were even oversubscribed.

Another factor contributing to hotel development during the 1980s was the very favorable treatment provided by US. income tax regulations. By carefully structuring hotel syndications to take advantage of available tax benefits, investors could virtually recoup their total cash outlay in the first year and reap additional benefits in the future regardless of the economic success of the underlying asset. Because there was little incentive to justify a transaction's economics (i.e., cash flow and reversionary benefits), a number of syn-

dicators overpaid for premier trophy properties, took out excessive fees, and overloaded their hotels with debt.

Hotel franchisers also played an important role in this overbuilding through a new concept called segmentation. In order to show continuous growth, the hotel companies, which at the time catered to only one pricing segment, started to realize that they could create new products for other pricing segments and thereby offer two or more affiliations in the same market without directly competing against themselves. For example, Holiday Inns, a mid-price lodging chain, went upscale and established Crowne Plaza and then ventured downscale with Hampton Inns. Marriott, which was known as a first-class operator, went downscale with Courtyard and downscale further with Fairfield Inn. In addition to adding new pricing segments, hotel companies created entirely new products (e.g., the all-suite hotel, the extended-stay facility, and the microtel). Hotel developers soon went wild building new properties financed with plentiful amounts of available money and flagged with an assortment of franchises and new products.

A change in the tax law in 1986 eliminated many of the real estate tax benefits of hotels, but the overbuilding in most markets was either in progress or had already taken place. By the end of the 1980s, the abuses of the savings and loans became apparent, but it was too late to reverse the overbuilding.

Up until 1990, the lodging industry in most areas of the country was facing massive overbuilding which created a supply problem. Lodging demand was still strong and, although a recession seemed likely, most industry experts were hopeful that the economy would hold up. Given this favorable economic scenario and the fact that very little new development was anticipated for the first several years of the decade, some experts expected hotel occupancies to improve quickly and the lodging industry to fare better than it had during the 1970s. Unfortunately, the economy did go into a recession, which curtailed business, convention, and leisure travel and produced a downtrend in lodging demand.

The 1990s – Recession, Recovery, and Expansion

The national economy entered another recession in 1990 and this factor (coupled with overbuilding and the Persian Gulf War in 1991) caused the national hotel occupancy rate to bottom out in the low 60% range. In some markets, occupancy rates dropped as low as 35%. The supply and demand imbalance was almost identical to the situation in the 1970s that led to numerous failures. Trailing closely behind this downward occupancy spiral were hotel room rates. Full-scale rate wars broke out in many markets as managers, seeing their patronage erode, attempted to test the elasticity of hotel demand. Since lower room rates rarely create additional new hotel demand but rather redistributes the existing business among the area's facilities, this strategy produced only short-term revenue gains for some properties and eventually led to long-term profit declines for almost everyone.

Many hotels quickly fell behind with their highly leveraged debt service payments, and this immediately led to a rash of foreclosures and bankruptcies. During this same time, the savings and loan industry began to flounder under the burden of non-performing loans and the Resolution Trust Corpora-

tion (RTC) was created to handle the crisis. Since savings and loans were prominent hotel lenders at the time, the RTC soon started to take over hundreds of defaulted hotel loans and actual properties as they acquired insolvent banks. Instead of holding on to these assets and waiting for values to recover, the RTC held massive auctions and disposed of hundreds of hotel properties at bargain prices. Those investors that had the foresight to see a market turnaround made huge profits by buying low and selling high.

A number of lenders opted to restructure their non-performing hotel loans rather than force their borrowers into bankruptcy. Many combinations of principal reduction, interest rate adjustment and other types of forgiveness were structured to assist hotel owners in coping with excessive levels of debt service. Those borrowers who were able to survive and get through these crisis years generally preserved some of their equity and tax benefits.

By 1993, new hotel construction had declined significantly. Lenders, trying to get out from under problematic hotel portfolios, curtailed all real estate lending and would not even consider hotel financing opportunities. The tax ben-

efits associated with hotels had been reduced significantly, and passive investors left the hospitality market entirely. The slowdown in supply growth, coupled with an improving national economy emerging from recession, had a beneficial impact on occupancy levels, which began to recover in 1992. As increases in lodging demand outpaced the growth in supply, improved occupancy levels continued to move upward through 1994 and 1995. The occupancy improvement motivated the resumption of supply growth at this point, but only for smaller limited-service hotels, generally financed by local banks. However, higher-rated economy and mid-scale properties soon started to become economically feasible (i.e., economic value exceeded development cost), and these projects were more commonly financed with funds supplied by regional banks and Wall Street conduits who structured mortgage-backed securities to sell off pieces of the debt that were risk rated by the rating agencies. During this period, the replacement cost for first-class and luxury hotels still exceeded the value of similar existing properties, so little development took place in these two segments.

The re-emergence of Real Estate Investment Trusts (REITs) also influenced pricing trends and sales volume during the mid- to late 1990s. Given their structure, organizational purpose, and low cost of capital, REITs were driven by the need to grow by acquiring assets. According to information provided by the Lodging Research Network, the number of hotels owned by REITs increased from 39 in 1993 to 970 in 1998, while the number of hotel rooms controlled by REITs increased from 6,643 in 1993 to 183,784 in the first quarter of 1998. As the REITs and other public companies, including C-Corps, actively pursued high-quality hotels, the competition for these properties accelerated, placing upward pressure on hotel values. This rapid growth came to an abrupt end in mid-1998, when the stock market lurched downward from fears of a global recession, particularly in Asia. As the fears proved to be unfounded, stability returned to the capital markets, although the relationship between the stock prices of the larger hotel companies and the perceived health of the lodging industry continued to create a sense of uncertainty. As the decade ended, the budget and economy segments of the lodging industry were most at risk, whereas the luxury segment was the safest category for investment. New construction in the luxury sector continued to be difficult to cost-justify, so additions to supply have been minimal. Furthermore, the

barriers to entry and long development time required for hotels of this type is likely to delay overbuilding for a number of years.

Throughout the past decade, hotel values in the U.S. have fluctuated fairly dramatically. During the late 1980s and early 1990s, values declined in most parts of the country. The downturn, which began in most markets in 1988, was largely attributable to lower operating incomes caused by an oversupply of new hotel rooms that were constructed during the mid-1980s. Overbuilding resulted in flat or declining average rates and occupancies, which caused revenues to fall. A number of other factors exacerbated the situation. The national recession caused a drop in demand in many markets during the early 1990s, and the Persian Gulf War created a virtual freeze on travel in the beginning of 1991, further limiting hotel demand. Operating costs continued to rise despite poor market conditions, resulting in a decline in the net operating income of many hotels throughout the nation. Because operating costs have a large fixed component, some lodging facilities experienced precipitous drops in net income.

As bottom-line profits eroded, many hotels were unable to meet debt service, and hundreds of properties entered foreclosure or bankruptcy. Lenders and government agencies soon became hotel owners. Because most financial institutions were

preoccupied with their distressed real estate, very little mortgage capital was available and the nation suffered from a well-publicized credit crunch. The property owners, who, in most cases, were lenders, financed a majority of the hotel transactions that occurred during the early 1990s.

In the early 1990s, the primary market participants were owner-operators with the expertise to turn around under-performing properties. Hotels were out of favor with passive investors as a result of the industry's poor operating performance and the uncertainty of future appreciation. The wide disparity in buyer and seller expectations also limited the number of transactions. Many sellers were unwilling to accept the fact that the market value of their hotel investments had declined below the cost of the project or the original investment. Moreover, many owners were faced with a significant tax burden upon sale, further reducing their willingness to settle for a price that was below the original acquisition cost.

As a result of these market forces, there was very little sales activity involving large, high-quality hotels in the early 1990s. The primary difficulty was the lack of properties available for sale. Owners who were not forced to sell opted to wait for prices to recover. The few hotels that did enter the market during this period generally attracted 15 to 20 interested bidders, mostly consisting of owner-operators. As a result of the competition for these few assets, the prices of better-quality hotels began to escalate rapidly. In response, more sellers were encouraged

to place their products on the market, and the number of hotels available for sale (and the number actually sold) began to rise in 1994. This trend continued to accelerate through the first half of 1998.

An indicator of this market trend is the number of hotel sales that have occurred during the past few years. HVS International tracks major hotel transactions of more than \$10,000,000 on an annual basis. In 1992, the number of major transactions was 70; a slightly lower level of 53 was registered in 1993. This total increased significantly, to 108 in 1994 and 147 in 1995. In 1996, the total number of major transactions soared to an estimated 227, then increasing again to 280 in 1997. The wider availability of mortgage capital was a material factor influencing the increase in both market activity and prices. Initially, the number of lenders returning to the market was extremely limited, and the underwriting criteria were fairly stringent: loan-to-value ratios were in the 60% to 70% range, and amortization periods were shortened to 20 or 25 years. The qualification of the borrower was also a crucial consideration for most lenders.

In the mid-1990s, an increasing number of lenders entered the hotel mortgage market. Although these institutions continued to adopt a cautious posture, the greater availability of funds fostered competition, particularly for high-quality assets and well-qualified buyers. As a result, loan-to-value ratios returned to historical levels of 70% to 75%, and interest rates decreased to the 8.0% to 9.5% range for

most deals. Amortization periods remained in the 20- to 25-year range. The lingering influence of the downturn in the early 1990s is evident in the widespread practice of underwriting based on net income after the deduction of management fees and a reserve for replacement; these line items typically total 7% to 8% of gross revenues.

The market for hotel investments slowed in the third quarter of 1998 due to a reduction in both equity and debt capital available for real estate acquisitions. At that time, many hotel buyers and conduit lenders withdrew from the market due to a downturn in lodging REIT and C-Corp stock prices and the uncertainty of capital markets. The number of major hotel transactions slowed to 241 in 1998 and declined further in 1999 to 118. The market improved somewhat in the first quarter of 1999 as the international capital market stabilized. Transaction activity in the first half of 1999 was significantly below that of the first half of 1998 due to the virtual withdrawal of REITs from the market. By the third quarter of 1999, hotel transaction activity increased once again as buyers and sellers adjusted to new pricing levels and took advantage of the relatively low cost of capital. Private equity capital and traditional debt from commercial banks and credit companies are expected to continue to fuel hotel transactions over the near term. Activity by conduit lenders and public lodging companies also resumed, albeit at a more moderate pace than that witnessed in 1997 and early 1998.

In 1998, moderate to high supply growth in the economy and mid-priced segments caused the U.S. hotel occupancy level to decline. The decline of occupancy in several major U.S. markets, coupled with the instability of the global economy, has caused several major lenders to halt hotel financing in fear of another economic slowdown. Furthermore, as the number of high-quality, available assets and the amount of available financing diminishes, sales activity is expected to slow. This will, in turn, likely result in the stabilization and decline of sale prices.

New Products and Concepts

In recent decades, several new lodging products were introduced including the all-suite hotel, the extended-stay hotel, and the hard budget hotel. These facilities have gained wide acceptance among the traveling public. While the all-suite hotel and the hard budget hotel essentially absorbed existing demand from traditional hotel products, extended-stay properties actually cre-

ated new transient lodging demand by attracting long-term travelers who had previously used apartments and residential hotels.

The all-suite hotel concept is based on the theory that certain types of commercial and leisure travelers do not use the meeting, banquet, restaurant and lounge facilities found in most full-service hotels. Taking the space allotted to these facilities and relocating it into guestrooms could create individual suites with separate living and sleeping areas. The key to the all-suite concept is to reallocate space in a manner that keeps the room rates charged for a suite similar to the room rates of comparable, full-facility hotels. This creates a favorable price-value relationship for the guest who does not need all the facilities found in a full-service property. Most all-suite hotels also offer a free breakfast and an evening cocktail hour to attract patrons.

The all-suite hotel has been well received by individual commercial travelers and by some leisure travelers. In many markets such hotels are currently the occupancy leader with room rates on par with similar, full-facility hotels.

Since they generally have limited food and beverage facilities, all-suite hotels are usually easier to operate and their profit margins are higher.

The extended-stay hotel is designed for the traveler who must stay in an area for five or more consecutive days. It differs from a standard hotel in that the rooms and amenities are oriented toward someone who wants a more residential atmosphere. The guestrooms in an extended-stay hotel have large living areas and full, eat-in kitchens; some have two separate sleeping areas, individual dining rooms, and separate baths. The exterior of such a hotel generally has a residential feel similar to a garden apartment complex, complete with recreational facilities and even barbecue grills.

The high occupancy levels realized by the initial wave of extended-stay hotel development dramatically heightened interest in this segment, and the number of extended-stay hotel products continues to expand, fragmenting into sub-segments ranging from economy to first-class. The true depth of the extended-stay demand segment remains difficult to gauge, although managers of the lower-rated extended-stay products often find themselves competing

with operators of conventional limited-service hotels, while higher-rated extended-stay products often compete as the equivalent of a first-class, all-suite hotels. Generally, the hotels succeed, as the strong investment in the guestroom offerings presents a strong price-value perception for guests of all stripes. Nevertheless, the operating efficiencies inherent in the design and operating concept are diminished as the length of guests' stays shrinks.

The hard budget is the 1990s version of the budget hotel. Over the years the budget hotel concept has gone through what has been termed "amenity creep." In an effort to increase room revenue and thus franchise fees, hotel franchise companies encourage franchisees to upgrade their properties by adding more amenities. This process generally starts with simple additions such as a free morning newspaper and continental breakfast; later it may spread to such extras as coffeemakers in guestrooms, free shampoo and other beauty supplies, fitness centers, turndown service, and so forth. Each of these amenities creates an expense that must be offset by an increase in revenue. In the end amenity creep can turn a budget hotel into a mid-rate property or a mid-rate hotel into a first-class property.

Hard budget has taken the budget concept back to basics. Its guestrooms have been downsized to only 192 square feet. It offers none of the normal hotel amenities such as a restaurant, lounge, meeting space, or swimming pool. A hard budget is 10% to 20% less expensive to construct, requires less land, is easier to operate and maintain, and can undercut the room rates of comparable budget hotels by as much as 25%. The hard budget concept, which had its genesis with Statler's "room and a bath for a dollar and a half," illustrates the recurring cycles in the lodging industry.

Market Segmentation

Market segmentation, as a hotel industry phenomenon, originated in the 1980s and continued through the 1990s. Market segmentation essentially represents an expansion strategy for hotel companies. When hotel chains such as Holiday Inn, Marriott, Hilton, and Sheraton were founded, they developed a standardized form of operation that was oriented toward a single

class of traveler. For example, Holiday Inns were designed, operated, and priced to appeal to the mid-rate commercial and leisure traveler. Marriott went after more affluent, first-class guests by offering higher-quality facilities and services. Over the years these chains developed strong brand loyalty among these specific classes and types of travelers. As it became apparent that markets for the “core” brand of these hotel chains were essentially satisfied (e.g., most of the available hotel markets within the United States had a sufficient number of Holiday Inns to satisfy their mid-priced travelers), the hotel chains had to find a vehicle for expansion that would allow them to develop or franchise additional properties within their established market areas. The answer to this dilemma was to develop a new product and brand name to capture a different class of traveler.

Market segmentation allows hotel chains to expand without simply drawing a portion of the demand away from their core properties. For example, Holiday Inns implemented market segmentation by developing an upscale hotel product with higher-quality finishes and decor, a higher level of service, and more amenities to attract first-class travelers. This brand of hotel was called

the Holiday Inn Crowne Plaza (now known only as Crowne Plaza). Going in the opposite direction, Holiday Inns also developed a downscale, budget-type product known as the Hampton Inn, which was designed to capture the more price-sensitive traveler. The Hampton Inn brand (which is now controlled by Hilton Hotel Corporation) offers a lower level of service than the standard Holiday Inn. It has no restaurant, lounges, or function room and the size of its guestrooms and the quality of its decor and amenities are less than one would expect at the typical Holiday Inn. By offering three types of products, Holiday Inns significantly increased the size of its potential market. This allowed the chain to develop or franchise hundreds of additional hotels within its established market areas throughout the United States.

Marriott has demonstrated the benefits of market segmentation as well as any hotel chain, leveraging the substantial goodwill and marketing power it has established through decades of consistent quality into nearly every possible hotel demand segment. Marriott has expanded by both segmenting and acquiring the rights to a variety of brands, including Residence Inn in the 1980s,

and, in the 1990s, Ritz-Carlton and Renaissance. These strategic acquisitions have emerged as another common means for sustaining growth.

Strategic Acquisitions and Mergers

Earnings growth is critical to public companies and hotel ownership increasingly became the province of publicly held companies in the 1990s. Whereas market segmentation continued to represent a viable approach to achieving earnings growth (along with property-by-property acquisition), a far more efficient means to this end was commonly practiced in the mid- to late 1990s in the form of strategic acquisitions and mergers. Starwood Hotels and Resorts and Patriot American Hospitality (now known as Wyndham International) were the most conspicuous companies. Starwood acquired the assets of hotel companies such as Sheraton, Westin, and HEI Hotels, while Patriot American amassed the assets of the Wyndham Hotel Corporation, Carnival Hotels & Resorts, Interstate Hotels, and Grand Heritage Hotels, among others. At the decade's end, the Promus Hotel Corporation, which controlled the Hampton Inn, Doubletree, Homewood Suites, Embassy Suites, and Red Lion

brands merged with Hilton Hotel Corporation. A few key multi-brand hotel companies, marketed cooperatively for greater efficiency and economies of scale, now control most of the industry's most recognized brands in similar groups.

The outcome of this shift in the nature of hotel ownership is difficult to discern at this stage; however, hotel companies are now scrutinized and evaluated based on their ability to increase shareholder value, a shift away from the traditional primacy placed on day-to-day operations and basic property level performance. Through future years, the most successful hotel companies will likely maintain a property level perspective and prioritize on-site management while still increasing their earnings through brand leverage, greater economies of scale, and an increasingly global perspective.

Globalization of the hotel industry should intensify during the next decade. More U.S. hotel companies may actively expand throughout the world and more foreign hotel chains will probably seek opportunities in the United

States. From an appraisal point of view, a global knowledge of hotel trends and valuation techniques will be essential.

Management Contracts

A final factor that has had a major impact on the U.S. hotel industry is the use of hotel management contracts, which emerged during the 1980s. Under this type of agreement a hotel company takes over the day-to-day operation of a hotel and is paid a fee for this service. If the hotel company is a well-known chain, the management fee also includes the right to use the trade name. The hotel management company generally has little or no ownership interest in the hotel and is not responsible for funding any operating losses.

Management contracts are particularly attractive for public hotel companies, which find it undesirable to keep real estate assets such as hotels on their balance sheets for accounting purposes. Progressive chains such as Marriott have created a strategy in which they develop or acquire a hotel, implement

their management, and then sell the property to either an individual investor or a partnership but retain operational control through a long-term management contract. Due to the widespread use of the hotel management contracts and franchises, very few hotels operating as part of a national chain are actually owned by that chain.

Learning from History

Many of the changes and trends that developed during the 1990s will continue to affect the U.S. lodging industry in the next decade. In the short- and long-term future, the lodging industry will have to adapt continuously to meet inevitable changes. Some of the factors that will impact the hotels and motels of the future are discussed below.

Faster Transportation

The jet airplane revolutionized long-distance travel by allowing people to cover more miles in shorter trips. As the speed of transportation increases,

supersonic or orbital aircraft will make it possible to fly round trip between New York to Tokyo and attend a business meeting all in one day. This would eliminate the need for any hotel accommodations.

Better Communications

Before long every home and office will be linked by a computer and video communication system. The need for face-to-face meetings will be greatly reduced when this technology becomes commonplace. Many business meetings, small conferences, training seminars, and conventions could be accomplished without incurring travel and hotel expenses.

Globalization

Faster transportation and communications could have negative effects on the lodging industry, but the inevitable globalization of businesses will create a need for business travel when face-to-face interaction is essential. The major business centers throughout the world will benefit from this trend.

Increased Pleasure Travel

As the number of affluent, two-income families increases and transportation becomes quicker, easier, and less expensive, the travel industry has seen an increase in pleasure travel. This trend is likely to continue with resort areas receiving the greatest benefit.

In addition, the preceding description of the hotel-motel industry in the United States identifies several important points that could affect the market value of lodging facilities.

1. The typical hostelry experiences a relatively high degree of functional and economic obsolescence. These factors tend to reduce a property's economic life; thereby decreasing the period during which an owner can fully recapture invested capital.
2. The growth of the lodging industry is influenced by developments in transportation. The first hostelries were located on coach trails; when the railroad came, hotels moved closer to passenger

terminals. Later the automobile led to the creation of the motel, and the airplane generated demand for rooms at airport locations. A decline in a particular form of transportation can lead to the failure of associated lodging facilities.

3. The budget motel is the result of a cyclical phenomenon. The rooming house was America's first economical lodging facility. After its popularity declined, Statler introduced the first full-facility hotel at an affordable price. In the 1950s the highway motel brought rates down for the mass travel market, and 20 years later the "revolutionary" budget motel was introduced. In the 1990s amenity creep made it possible to recreate the budget motel, this time called the hard budget.
4. Enormous amounts of financing were available in the late 1920s, the early 1970s, and the mid-1980s. Ready capital coupled with factors such as income tax advantages, other government incentives, and an overheated economy led to excessive overbuilding and many properties were forced into bankruptcy or foreclosed soon after they opened. In these boom periods, hotel own-

ers soon discovered what usually happens when a property is poorly conceived, undercapitalized, and mismanaged.

5. Distressed hotels have traditionally been valued by looking ahead to a time when recovery is expected and then projecting income and expense out until a stabilized level of occupancy is achieved. Discounted cash flow analysis is then applied to convert the projected income before debt service into an estimate of value. Using the actual net income of a distressed property would probably understate its market value because most sellers would wait for a recovery to occur unless they were forced to make an immediate sale.
6. The lodging industry has been characterized by change. Appraisers must stay abreast of current industry trends and developments to understand and correctly reflect investors' motivations and behavior in this dynamic market.

2. Performing a Hotel Market Study and Valuation

What is a Hotel Market Study and Valuation?

Each time a hotel is bought, sold, developed, financed, refinanced, syndicated, or assessed, parties to the transaction may require some type of market study and valuation to indicate its future financial performance. Over the years the lodging industry has used a variety of terms to describe the process of forecasting the revenue and expenses of a property and estimating its market value. These studies may be called *feasibility studies, market studies, market studies with financial projections, market demand studies, economic studies, economic feasibility studies, appraisals, valuations, economic valuations, economic market studies and appraisals, or market studies and valuations.*

Although the studies identified by these names will generally produce similar findings, in this text the term market study and valuation will be used to describe a six-step process.

1. Evaluate the hotel's site and locational characteristics
2. Quantify lodging demand
3. Evaluate competitive lodging supply
4. Measure property-specific characteristics (for an existing hotel)
5. Forecast revenue and expenses
6. Estimate market value

Most appraisers are already experts at estimating market value, so this book will concentrate on the process leading up to and including the forecasting of revenue and expenses. The valuation section will focus on the income capitalization approach and show how the cost and sales comparison approaches provide support for the final value conclusion. By following the procedures

described in this book, appraisers will have the tools needed to perform various types of studies.

The Phases For Performing A Hotel Market Study and Valuation

When an appraiser is retained to perform a hotel market study and valuation, a four-phase process is followed to accomplish the goals of the assignment. The phases are outlined here in a logical order, but some of the work required in the individual phases can proceed concurrently. The phases employed in performing a hotel market study and valuation are identified as follows.

Phase 1. Define the assignment

Phase 2. Data collection

Phase 3. Data analysis

Phase 4. Formulate conclusions

This book will explain each phase in order.

Phase 1. Define the Assignment

Before beginning any type of study, the appraiser must define the assignment. Some questions that should be considered when defining a hotel market study and valuation assignment are

Where is the property located?

Is the hotel existing or proposed?

What facilities constitute the property (if it is existing)? What is the date of value?

What is the purpose of the study?

What property rights are to be appraised? Is there any excess land?

Who will operate the hotel?

What is the financial structure - debt and equity?

The answers to these questions are generally provided by the property owner or client and form the basis for defining the assignment.

Phase 2. Data Collection

Once the assignment has been defined, the appraiser begins to collect data. The process of collection starts by determining exactly what type of data is required to complete the assignment. A data collection checklist is often employed to ensure that no essential information is overlooked. The appraiser must then determine where to look for each type of data. Typical data sources include

Information provided by the property owner or client

Primary market research conducted in the field by the appraiser

Secondary research of in-house data and other secondary sources

The data collection process should be thorough, accurate, and all-inclusive. The results of the market study and valuation are only as accurate as the data collected.

Phase 3. Data Analysis

The collected data are evaluated and analyzed by the appraiser to form a basis for conclusions. Sophisticated analytical procedures are used to manipulate data so the appraiser can simulate, or model, actual market conditions. Three procedures employed in hotel data analysis are presented in this text: Room Night Analysis, the Fixed and Variable Income and Expense Forecasting, and the Mortgage Equity Valuation Model.

Room Night Analysis

This procedure measures the current hotel demand in the area and forecasts future demand. The market share for the subject property is then calculated

based on its competitive strength relative to other hotels in the area. With information on the subject's market share over the projection period and the forecast room night demand, the program can calculate the subject's probable percentage of occupancy.

Fixed and Variable Income and Expense Forecasting

The income and expenses for a lodging facility tend to fluctuate with changes in the sales volume and usage of the property. By identifying the portion of a revenue or expense item that is fixed and the portion that varies directly with volume or usage, the fixed and variable income and expense forecasting model provides a basis for forecasting a hotel's net income before debt service.

Mortgage Equity Valuation Model

Hotel investors typically make purchase decisions using a mortgage-equity technique in which the forecast net income before debt service and residual value are discounted to present value at a discount rate that reflects the cost of debt and equity capital.

In addition to these analytical procedures, the appraiser evaluates data used in the cost and sales comparison approaches.

Phase 4. Formulate Conclusions

Based on Phase 3 analysis, the appraiser can formulate conclusions. In a typical market study and valuation, there are a series of intermediate conclusions that lead to the ultimate opinion of value. Some of these intermediate conclusions are listed below.

Intermediate conclusions

-
1. Suitability of the site for hotel use
 2. Suitability of improvements and amenities (if the hotel is existing)
 3. Surrounding neighborhood characteristics
 4. Local economic and demographic conditions
 5. Current level of room night demand subdivided by market segment
 6. Expected future trends in lodging demand
 7. Existing and projected competition
 8. Subject's relative competitiveness and projected capture of room night demand
 9. Subject's projected annual occupancy up to a stabilized level
 10. Subject's projected room rates
 11. Projected use of and revenues from food, beverage, and banquet facilities as well as other services and amenities
 12. Projected operating and fixed expenses

13. Estimated net income before debt service for each year of the projection period
14. Income capitalization parameters such as mortgage interest and amortization rates, loan-to-value ratio, term, equity yield, terminal capitalization rate, and inflation rate
15. Opinion of value by the income capitalization approach
16. Opinion of value by the cost approach (if appropriate)
17. Opinion of value by the sales comparison approach (if appropriate)
18. Reconciliation of each approach and final estimate of market value

Note. These conclusions are referred to by number in the data collection checklist.

ASSUMPTIONS

This four-phase approach to performing a hotel market study and valuation will be thoroughly described in the chapters that follow. Readers should keep in mind that these procedures will speed the process of data analysis, but they do not take the place of accurate and complete data collection and experienced judgment in formulating conclusions.

Before proceeding, some of the assumptions made by the author must be set forth.

1. The term hotel is used throughout this text. However, the procedures described for a hotel market study and valuation are equally applicable to motels, motor inns, motor hotels, inns, conference centers, and resorts.
2. This book does not contain a complete discussion of the history of the lodging industry, macro supply and demand trends, and the theory

behind various valuation techniques. It is assumed that the reader has some familiarity with these topics.

3. To illustrate the procedures and techniques described in this text, case study examples are utilized. These examples are concerned with an existing hotel with an operating history and a proposed hotel expected to open in three years.

DEFINE THE ASSIGNMENT

The first phase in all hotel market studies and valuations is the creation of a complete and clear definition of the assignment. A clear definition is needed because you cannot determine how to get somewhere until you know where you are going. An appraiser must understand the client's exact needs before embarking on data collection and analysis. A thorough

definition is also needed to determine the amount of time and staff required, which must be known to prepare an accurate fee quote.

TYPES OF DATA

To define the assignment, the appraiser assembles data that can be classified as either property-specific or assignment-specific. This information generally comes from the client or the property owner, if they are two different parties. Often much of this data is accumulated over the telephone, but a sophisticated client may put together a formal request for proposals (RFPs), which sets forth detailed instructions and assignment requirements.

Property-Specific Data

Property-specific data relate to the vacant land, if the hotel is proposed, and the land and improvements if the hotel exists. Some property-specific data are essential in defining the assignment.

Does the hotel exist or is it proposed?

A market study and valuation for a proposed hotel require considerably more market research and data collection because the appraiser cannot examine the property's financial track record to date.

Property location

The exact location of the property is needed. A survey is often helpful, but a street address will generally suffice.

Description of the property

If the hotel exists, the appraiser should have a complete understanding of what facilities are included in the study. A minimum facilities description

would include room count, number of restaurants and lounges, square foot area of meeting and banquet space, amount of retail space, and a list of other facilities and amenities.

If the hotel is proposed or there is the possibility that the site contains excess land, the appraiser should obtain a description of the parcel. Size, frontage, access, visibility, and topography are important factors to consider in defining an assignment.

Excess land is surplus land that is not needed to accommodate a site's highest and best use. It refers to a part or section of the site that is not needed or used by the current hotel facilities or, alternately, land that could be used for an addition to the existing hotel or for another compatible use. The availability of proper zoning, access, visibility, and utilities must be considered when determining whether land can be deemed excess land.

Assignment-Specific Data

Assignment-specific data include any general information and assumptions provided by the client such as the purpose of the study, the property rights appraised, the date of value, and the property's financial structure and operator.

Purpose of the Study

To meet the needs of the client, the appraiser must understand the function of the study. This book is concerned with market study and valuation. This type of study can serve a wide variety of purposes.

- To develop an opinion of market value or investment value for potential hotel purchasers

- To estimate market value or investment value for potential hotel sellers
- To interest lenders in providing project financing
- To attract investors for equity syndications
- To resolve property tax disputes
- To establish value for bankruptcy and/or foreclosure
- To value property for condemnation proceedings
- To determine if a proposed hotel will be economically feasible
- To determine if present management is maximizing the value of the property
- To quantify the value of property expansion or renovation

Property Rights Appraised

The property rights appraised are the interests that will be transferred as of the date of value. Some of the interests appraisers typically value in ho-

tel appraisals include fee simple, leasehold, leased fee, management contract, limited partnership, corporate stock, and minority ownership. Each type of interest includes specific property rights and risks, which must be evaluated and reflected in the value opinion.

Date of Value

Every valuation is made as of a specific point in time. A retrospective value, current value, or prospective value may be estimated. Because the data collected must reflect market conditions as of the effective date of value, the appraiser must know the client's assumed valuation date before beginning the assignment.

Financial Structure of the Property

Depending on the specific purpose of the assignment, it may be necessary to examine the hotel's existing or contemplated financial structure, which

usually encompasses both debt and equity components. This information is essential in developing an investment value estimate for a particular hotel investor because specific return requirements must be considered in the income capitalization approach.

Operator's Performance Abilities

When a hotel market study and valuation is performed and a hotel management company is assumed to be the property's long-term operator, the forecast of income and expense should reflect the anticipated performance abilities of that specific operator. Performance abilities typically refer to the company's capacity to operate the property in a manner that maximizes long-term revenues while minimizing long-term expenses. The performance abilities of hotel management companies vary widely and can have a significant impact on future operating results. Therefore, the appraiser must determine at the outset whether the market study and valuation is to assume a generic, competent hotel management company or a specific operator. If a specific operator is assumed, the appraiser

should request information pertaining to the operator's performance abilities. Helpful data would include financial statements, occupancy and average room rates for comparable properties, and information concerning the operator's experience in managing hotels of specific types, classes, and franchise affiliations in particular locations. In later chapters of this book, procedures for evaluating this type of comparable operating data and using it to forecast future operating performance for the subject property will be covered in detail.

Both property- and assignment-specific data are useful in defining an assignment accurately. Hotels are very complex investments, so appraisers should keep in mind that each assignment is unique; additional information not specifically set forth here may be needed to fulfill the needs and expectations of the client.

DATA COLLECTION

Phase 2 of the hotel valuation process is data collection. The findings and recommendations contained in a hotel market study and valuation depend on the quality of the data gathered and used in the assignment. Appraisers are in the business of data collection and retrieval.

This chapter will describe a process for collecting all the data needed to develop a hotel market study and valuation. First, primary sources of data will be explored; then specific types of required data will be illustrated with directions for their collection. Because the material is arranged in a step-by-step manner, it may not be immediately clear how certain types of data will be utilized in the analysis. As the process unfolds, however, the use and organization of data should become apparent.

PRIMARY SOURCES OF DATA

Data for a hotel market study and valuation can be obtained from a wide variety of sources. The three primary data sources described below reflect the general direction in which the appraiser should start looking for information. The three categories of hotel market study and valuation data are: client-supplied data, in-house data, and field data.

Client-Supplied Data

The client usually supplies property- or assignment-specific information. Client-supplied data include the information needed to define the assignment, as well as additional materials such as plot plans, legal descriptions, architectural plans, financial statements, management contracts, franchise agreements, and budgets. The appraiser should request this data in the proposal contract. In fact, some appraisers begin their contractual work schedule when all the client-supplied data requested are actually received. The quality of data provided by the client is generally good; these data tend to be factual rather than subjective in nature.

In-House Data

Information that is accumulated and maintained by a hotel appraiser in the normal course of business (i.e., not for a specific assignment) is categorized as in-house data. In-house data include comparable sales of hotels, hotel directories, travel surveys, occupancy and average rate databases, financial operating statements, trade and professional journals, and economic and demographic databases. The quality of this type of data is generally good. The ability of an appraisal firm to accumulate a significant amount of meaningful in-house data tends to be directly related to the quantity of hotel assignments it performs.

Field Data

Information that is not supplied by the client or found in the appraiser's in-house database must be collected from the field specifically for the assign-

ment. Field data include site and location-related descriptions, information on market area characteristics and the nature of local lodging demand, competitive property data, and economic and demographic trends. Field data are usually generated through primary research. Therefore, the quality of these data depends on the data collecting techniques utilized and the skill of the appraiser performing the fieldwork. Collecting field data for a hotel assignment can be a time-consuming process. It may take from one to ten days of work depending on the firm's familiarity with a specific market area and the nature of the assignment.

DATA COLLECTION CHECKLIST

The following checklist illustrates the specific types of data that might be accumulated in performing a hotel market study and valuation. The list is not all-encompassing, but it does indicate most of the major data used by hotel appraisers. Some of the data listed may not be appropriate for all studies; the appraiser should, of course, select only the information that is applicable to the specific assignment.

The checklist is followed by detailed explanations of individual entries. In this explanatory material, each data type is followed by a number in parenthesis. These numbers refer to the intermediate conclusions listed in the description of Phase 4 of the valuation process in the Introduction to this text. These references are provided to show how a particular type of data is used in formulating the many conclusions that must be reached in a hotel market study and valuation.

Figure 2.1 Data Collection Checklist

- 1) Client-supplied data
- 2) In-house data
- 3) Field data
 - a) Key contacts
 - b) Property-specific information

i) Land

(1) Access

(2) Visibility

(3) Utilities

ii) Improvements

(1) General description

(2) Building layout

(3) Guest rooms

(4) Corridors and elevator lobbies

(5) Food, beverage, and room service facilities

(6) Kitchen

(7) Meeting and banquet facilities

(8) Amenities

(9) Back-of-the-house

(10) Building systems

-
- (11) Vertical transportation
 - (12) HVAC
 - (13) Energy management
 - (14) Housekeeping
 - (15) Telephone
 - (16) Fire
 - (17) Security
 - (18) Lighting
 - (19) Miscellaneous

c) Area-specific data

i) Neighborhood

- (1) Assessed value and taxes
- (2) Zoning/building department
- (3) Planning department
- (4) Highway/transportation department

ii) Economic and demographic data - trends

(1) Chamber of commerce

(2) Newspapers

iii) Source of visitation demand

(1) Airport authority

(2) Convention center and visitor bureau

(3) Car rental agencies

iv) Competitive environment

(1) Competitive hotels

(a) Room/bed/occupancy tax

(b) Hotel association

(2) Competitive restaurants and lounges

(a) Liquor license laws

(b) Other restrictions

v) Sales of competitive hotels

- d) Other sources of data and information
 - i) Commercial real estate firm/board/etc.
 - ii) Local appraisers/counselors/bankers
- e) Photographs

Client-Supplied Data

The client should supply the following types of data.

- Date of market study and valuation (and opening date if hotel is proposed) (Conclusions 9-18)
- Interest appraised-i.e., fee simple, leasehold, leased fee, other value (12-18)
- Purpose of study (1-18)
- Balance sheets and profit and loss statements for past three years with supporting schedules (9-13)

Financial statements should be prepared in accordance with the Uniform System of Accounts for Hotels.

- Development costs including land, improvements, and furniture, fixtures, and equipment (16)

Cost estimates are particularly important for proposed hotels.

- Monthly occupancy and average rate over two years (8-10)

These data are most important for hotels with seasonal demand patterns.

- Copies or summaries of all leases, management contracts, franchise agreements, title reports, stock or partnership agreements, etc. (13-18)

Leases include ground, property, furniture, and equipment leases.

- Architectural plans, floor layouts as built, plot plans, survey and legal description (1,2,16)

If hotel is proposed, a detailed estimate of the project's cost is essential.

- Operating budgets and projections (9-13)

The owner or operator will usually prepare these items.

- Marketing plans (5-1 1)

The subject's competitive position and proposed marketing orientation should be evaluated.

- Engineering reports (1,2,16)

Reports should show current condition and any need for capital improvements.

- Capital expenditures over the past three years and capital budget (cost) projections (1,2,8,16)

Past expenditures will indicate need for future capital expenditures.

- Real and personal property tax bills, assessments of other hotels in the market area, name of legal owner (12)

Assessments of comparable hotels in the market area can be used to verify the fairness of the subject's assessed value or develop an assessed value if the subject is proposed.

- Past appraisals and market studies (1-18)

Studying the work of others can sometimes save time, but all findings should be verified.

- Purchase price, date, terms, contract, and closing statement for subject property if sold within the past five years (16-18)

A previous sale price of the subject property may be a good indicator of value.

- Agreement of sale, option, or listing for subject property (16-18)

Although such data are not strong indicators of value, they can sometimes provide useful information.

- Financing documents and mortgage and equity data (14,15,18)

Such information forms a basis for developing a capitalization rate if the data are recent.

- Union contracts (12)

Contracts provide insight into labor rates and work rules. The appraiser should follow up to determine how effectively the unions control productivity.

- Franchise reports concerning occupancy, inspection, and reservations (2,7,8,9, 10)

Hotel franchise companies often provide owners with a wide variety of reports and surveys, including occupancy reports, inspection reports, and reservation reports. An occupancy report compares the occupancy and average rate of the subject with other hotels in the same franchise system. An inspection report records the results of periodic physical inspections made by the franchisor. A reservation report documents the reservation activity generated by the franchisor's central reservation system. It sometimes includes a denial report, which indicates the number of guests turned away because the hotel is full. All franchise reports should be requested when the subject property is an existing, franchised hotel.

- Meeting planner's brochure and marketing packages (2,8-11)

All property-specific descriptive information should be reviewed before starting fieldwork. Data can also be collected during inspection of the property.

In-House Data

In-house data are gathered before fieldwork begins. Sources of such data are described below.

- Reports on past appraisals performed in the market area (1-18)

Prior work in the market area can form a base of information that will be updated and refined during fieldwork.

- Personal contacts (1-18)

Review personal contacts you have made in the market area to identify any that could be helpful in performing the assignment.

- American Hotel and Motel Association construction report (7)

This monthly report describes proposed hotel projects throughout the United States.

- Publications-*Official Hotel and Resort Guide, Hotel Travel Index, Red Book, AAA Travel Guide, Mobil Travel Guide, Appraisal Institute Directory of Members, and Lodging DataBank* (1 - 18) Various publications on hotel properties and hotel sales data as well as directories of real estate professionals can be helpful in performing a hotel market study and valuation.
- *National Real Estate Investor* city data (3,4)

This is a good source of general data on real estate activity in major markets.

Sales and Marketing Management database and Survey of Buying Power (4)

These publications are sources of economic and demographic data.

Restaurant Business Restaurant Activity Index (RAI) and Restaurant Growth Index (RGI) (1 1)

Consult these sources for restaurant supply and demand information.

FAA terminal forecasts (4,6)

These forecasts provide estimates of airline enplanements for most commercial airports in the United States.

Field Data

Field data are typically gathered at the subject property and in the surrounding market area.

Key Contacts

The individuals listed below are primary sources of data and information pertaining to an existing subject property.

General manager

Assistant/resident manager

Director of marketing

Director of sales

Director of engineering

Front desk manager

Controller/accountant

Market Area Information

The market area information listed below can usually be obtained from key contacts.

Introductions to other general managers and representatives of the local chamber of commerce, convention and visitors bureau, hotel association, etc. (3-1 1)

Ask the subject's personnel to provide introductions to other data sources in the market area.

Definition of primary market area in geographic terms (3-7)

As a rule of thumb, a hotel market area is the area within 20 driving minutes of the subject property. Defining the market area tells the appraiser where to investigate both supply and demand.

Demand generator analysis: industry type, location, map (4-6)

Identify which attractions create local transient hotel demand and plot them on a map. Investigate major generators within the market area.

Major businesses and industries in the market area (4-6)

List businesses to quantify commercial and meeting demand and forecast future growth trends.

Major users of subject property (2,4-11)

List the primary users of the hotel and determine whether any users receive special, discounted rates. This information is useful for conducting demand interviews.

Major contract business: term, rate, number of room nights (2,4-11) Contract

business users such as airline crews typically rent rooms for a specific pe-

riod of time at a set rate. Appraisers should understand the terms of any significant contract business.

Competition analysis: competitive hotels, occupancy, average rate, and market segmentation (7-10)

A marketing plan should contain detailed information on all the hotels that are competitive with the subject. This information is used to quantify area demand and determine the subject's relative competitiveness.

Mode of arrival and transportation provided (1,5-11): What modes of transportation do guests generally use to travel to the subject property? This information shows the importance of access and visibility and indicates the relative competitiveness of the subject.

Market segmentation (5-11): Determine the types of travelers (e.g., commercial, meeting, leisure) as a percentage of the total usage. Note any changes in the percentages that occur over the year. This information can be used to determine the suitability of the improvements and amenities and project future hotel usage.

Average length of stay (2,9-11): How long does the average guest stay at the subject? Identify by market segment.

Points of origin - feeder markets (5,6): Where do the guests come from? Identify by market segment for both the subject and the market area.

Seasonality - weekly, monthly, by segment (5-11): How does usage change over the year? Identify by market segment for both the subject and the market area.

Unaccommodated demand by segment (5,8,9): Quantify the amount of demand that cannot be accommodated because facilities are filled. Identify for both the subject property and the market area. These data are important if new supply enters the hotel market.

Double occupancy percentage (10, 11): Determine the average number of guests per room for each market segment. This information affects the subject's room rates and usage.

Indications of rate resistance, by segment (5,8-10): What market segments display rate resistance and at what rate level does this begin? This information influences future rate increases.

Rack rate strategy - usage of yield management (5,8-10): What type of yield management, or hotel pricing policy, does the subject use? How does it function?

Percent of reservations from franchise (8-11): How effective is the franchise identification in generating room reservations? If the subject is proposed, the franchiser can sometimes provide estimates.

Amount of travel agent commissions (8-11): How much business is generated from travel agents?

Unions (12): Which hotels in the market area are union-operated? This affects the labor component of operating expenses.

Property-specific information

Land

Description of the size, topography, and shape of the land (1,16): Data obtained from the plot plan or survey is important for evaluating access and visibility and the site's suitability for new improvements.

Municipalities (3,4,12): Determine the municipality in which the subject is located and identify other municipalities in the market area. This information is needed to research sources of local economic, demographic, and municipal information.

Area or acreage (1,2,16): The site area found on the plot plan or survey determines the number of units for a proposed hotel and the amount of excess land for an existing hotel. Land value, which is calculated in the cost approach, is usually based on area.

Excess land - salability, highest and best use (16,18): If the subject site contains surplus land that could be used for expansion or another use, additional value may be present.

Plot plan, survey (12): These documents are sources of land information

Frontages (1,8-11): Frontage determines access and visibility.

Adjoining uses (3,8-11): Inventory the land uses surrounding the subject property. Surrounding land uses can enhance or detract from the value of the subject property.

Grade compared to surrounding roads, uses (1,2,16): Grade level can impact access, visibility, and development costs.

Contours, slope, drainage (1,2,16): Topography affects development costs.

Flood hazard insurance (12): If extra insurance is required, a hotel's fixed expenses increase.

Soil tests: water table, percolation tests, flood zones, other engineering studies (1,2,16): These considerations can affect a proposed hotel's development costs.

Air rights, subsurface rights, water rights (16,18): Additional rights generally enhance a property's value.

Landscaping (1,2,8-12,16): Landscaping can significantly influence the competitiveness of a hotel.

Easements, other restrictions (16,18): Restrictions can have a positive or negative impact on property value.

Access

-
- North-south roads and east-west roads (1,8-11): List immediate and nearby roads and highways. Investigate both the immediate and secondary access for all modes of transportation.
 - Modes of transportation (1,8-11): How do guests reach the subject property? Remember, access may be accomplished by more than one mode of transportation.
 - Direct access patterns (1,8-11): Describe the access to the subject property by the primary modes of transportation. Describe adjacent and nearby highways, including the number of lanes, medians, turn restrictions, traffic signals, one-way streets, curb cuts, and limited-access roads.
 - Future access (8-11): How is access likely to change in the future?
 - Distance to major facilities: Calculate the distance in miles and time to highways and interchanges, airports, mass transportation, convention centers, major demand generators, and competitive lodging facilities.

- Competition (8-11): Compare the subject's access to that of the competition.

Visibility

- Evaluate visibility from nearby roadways (1,8-11): Consider how long the subject is visible to drivers and their ability to exit the highway after the subject becomes visible.
- Visibility from nearby demand generators (1,8-11): Is the subject visible from any demand generator?
- Visibility from nearby competitive hotels: Is the subject visible from any competitive hotels?
- Building height and depth (1,2,8-11): How does the subject's building height and depth affect visibility?
- Slope of land (1,8-11): How does the topography of the subject parcel affect visibility?
- Obstructions (1,8-11): Evaluate all obstructions to visibility-both existing and proposed.

- Signage: location, visibility, condition (1,8-11): Describe the subject's signage and evaluate its visibility. Can it be improved?
- Views from the subject's guest rooms, food and beverage outlets, etc. (1,8-11): Evaluate visibility during the day and the night and consider how visibility is likely to change in the future

Utilities (2,12)

- Location, capacity, and provider

Investigate the availability and cost of these utilities:

- Electricity: local rates, normal demand charges, quantity discounts, seasonal adjustments
- Natural gas: local rates, quantity discounts, seasonal adjustments
- Oil: tank size, local prices, quantity discounts
- Water: potable, hot and chilled
- Steam

- Telephone
- Sewage
- Liquified petroleum gas (LPG), propane
- Trash removal
- Storm drainage
- Alternative sources

If a utility is not available, consider any alternative sources. What will it cost to make it available?

Improvements (2,8-12,16,18)

The following portion of the checklist is concerned with the subject improvements. During the property inspection, the appraiser focuses on the physical and functional characteristics of the hotel, giving special attention to:

- Age and condition of land and improvements as well as furniture, fixtures, and equipment
- Immediate and future need for upgrading and renovation
- Physical attributes of the property compared to the competition
Evaluate the facilities offered and their condition, class, and desirability.
- Functionality of the property's layout and design

What impact does design have on service, maintenance, labor expenses, and security?
- Improvements' effect on future revenues, expenses, and profits

General description and building layout

- Plans and physical description. Obtain all necessary information from the property owner.
- Year opened
- Description and date of expansions and renovations

-
- Number of structures
 - Location of buildings on site
 - Number of stories
 - Building configuration-H, L, U, straight
 - Total square footage
 - Landscaping and sidewalks
 - Exterior facade-architectural style, materials, balconies
 - Future development plans, including project description and costs
 - Current engineering reports
 - ADA compliant and adequate number of ADA-equipped rooms

Lobby and entrance

- Porte cochere
- Valet parking stand
- Shuttle bus pickup and parking area

- Doors - automatic, airlock vestibule, bell stand
- Luggage storage
- Concierge desk
- Restrooms
- Phones-house and public
- Front desk
 - Visibility to incoming guests
 - Elevator visibility
 - Reservation and registration systems
- Location of executive offices
- Lobby-decor, size, ceiling height
- Lobby layout and circulation
- Layout and circulation on other floors

Guest rooms

- Total rooms, broken down by type of room so all are accounted for
- Number of connecting rooms
- Walking distance from facilities
- Size, ceiling height, terraces
- Furnishings-when last replaced, typical furniture inventory
- Refurbishment schedule
- Amenities-extra phones, multi-line phones, voice mail, computers, shoeshine, cable TV, VCR, etc.
- Doors-construction material, peephole, type of lock
- Closets-size, type of doors
- Wall material-plaster, drywall, concrete
- Windows-material, operation, glazing
- Sprinklers, smoke detectors, other life safety equipment
- Rooms for the handicapped

- No smoking rooms
- Bathroom-lighting, amenities
- ADA-equipped facilities

Corridors and elevator lobbies

- Double, single loaded
- Interior, exterior
- Direction and width
- Lighting type(s), sufficiency of light level
- Ceiling height
- Wall covering, wainscoting
- Floor covering
- Elevator lobby furnishings
- Ice machine
- Soda and snack machines

- Maid, linen closets
- Life Safety Systems (smoke, fire, evacuation plan, location cards on all room doors)

Food, beverage, and room service facilities

- Seating capacities, meals served, and hours of operation
- Copies of menus
- Decor, theme, style, and quality of furnishings
- Bar
- Back-of-the-house access from kitchens
- Description of room service facilities
- Separate outside access, visibility of separate entrance
- Access to restrooms
- Entertainment policy
- Point-of-sale accounting system

- Number of meals served (covers) per meal period per outlet
- Average turnover per meal period per outlet
- Average check per meal period per outlet
- Estimate of in-house capture and outside capture per meal period
- Banquet space-square foot area and rental rates

Kitchen(s)

- Locations
- Access and distance to receiving and storage areas, food and beverage outlets, meeting rooms
- Description, quality, quantity, configuration, and condition of equipment
- Adequacy of size and layout

Meeting and banquet facilities

- Size, name, and capacities of each meeting room, including floor plan and locations
- Mix and number of breakout rooms
- Decor
- Entrance, porte cochere
- Service and public corridors to and from meeting rooms
- Proximity to kitchen
- Adequacy of audiovisual equipment, furniture, and meeting support amenities
- Furniture storage area
- HVAC zone control

Amenities

- Swimming pool-shape, indoor or outdoor, type of enclosure, type of heating system
- Tennis courts-lighting

-
- Golf-number of holes and yards, annual rounds played, fees
 - Jogging trails
 - Type and inventory of health/exercise equipment-sauna, steam bath, whirlpool, massage, aerobics
 - Description of spa
 - Game rooms
 - Facilities for horseback riding, ice skating, bowling, boating, sailing, fishing, water skiing, snorkeling, wind surfing, skiing, racquetball, squash, other sports
 - Business services-computer, fax, typing, express mail, etc.

Back-of-the-house layout

- Employee entrance, lockers, rest areas, cafeteria, access pattern
- Security-timekeeping, personnel, purchasing offices
- Receiving/loading dock-guest view, lift
- Storerooms

- Engineering-shops, paint, TV, locks, carpenter

Building systems

- Structural support
- Foundation type
- Framing-steel, pre-cast concrete, reinforced concrete
- Walls-load-bearing, non-load-bearing
- Roof-age, condition, sloped or flat
- Roof material-asphalt shingle, built-up felt and tar, tar and gravel, slate, metal, clay tile
- Parking
 - Number of spaces
 - Indoor or outdoor
 - Valet service
 - Cost to guests

- Percentage of use by others

Vertical transportation systems

- Passenger elevators
 - Number
 - Floors served
 - Manufacturer
 - Cable or hydraulic
 - Capacity
 - Feet per minute
 - Automatic or manned
 - Control system-mechanical or electrical relays, computerized load system
- Service elevators
 - Number

-
- Floors served
 - Manufacturer
 - Cable or hydraulic
 - Capacity
 - Feet per minute
 - Control system-mechanical or electrical relays, computerized load system
 - Escalators-number and floors served
 - Dumbwaiters/freight lifts-number and floors served
 - Stairs

Heating, ventilation, and air-conditioning

- Type of heating system
 - Hot water, steam, electric
 - Fuel type

- Two-, three-, or four-pipe, forced-air delivery
 - Simultaneous heating and cooling
- Boilers
 - Manufacturer
 - Model number
 - Age and condition
- Burners
 - Manufacturer
 - Model number
 - Age and condition
- Water heater
 - Manufacturer
 - Model number
 - Size of holding tank
 - Age and condition

- Resistance
 - Manufacturer
 - Model or capacity
 - Age and condition
- Heat exchanger
 - Manufacturer
 - Model or capacity
 - Age and condition
- Heat pump
 - Manufacturer
 - Model number
 - Capacity
 - Age and condition
- Type of cooling system
 - Central/chilled water, heat pumps

- Chiller
 - Manufacturer
 - Model number
 - Age and condition
- Cooling tower
 - Manufacturer
 - Model number
 - Age and condition
- Zones
 - Guest rooms, meeting rooms, public space control

Energy management system

- Type of system
 - Manufacturer
 - Model number
- Individual thermostats

- Guest rooms

- Meeting and public space

Housekeeping

- Offices, storage, sorting areas

- Trash chute

- Linen chute

- Exhaust fan

- Washers
 - Manufacturer

 - Model number

 - Quantity

- Dryer
 - Manufacturer

 - Model number

- Quantity
- Fuel
- Guest laundry, contract
- Self-serve guest laundries

Telephone

- Type of system
 - Manufacturer
 - Model number
- Type of call accounting
 - Least cost routing
- Other special functions-e.g., two lines, call waiting, call forwarding, voice mail

Life Safety Systems

-
- Smoke detectors-local or wired
 - Heat detectors-local or wired
 - Sprinkler system
 - Fire extinguisher
 - Pull stations
 - Control, communication system
 - Manufacturer and model
 - Annunciator panel-location
 - Emergency lighting-battery backup
 - Exit signage-battery backup
 - Fire hoses
 - Fire pump manufacturer
 - Fire pump model
 - Standpipes
 - Kitchen range hood-CO₂ system/dry system

- Public address system
- Emergency generators and power
 - Manufacturer
 - Model number

Security

- Electronic surveillance equipment

Exterior lighting

- Sodium, fluorescent, incandescent, spot, mercury, halogen bulbs
- Building signage

Miscellaneous

- Presence of asbestos
- Presence of urea-formaldehyde foam insulation
- Building inspection reports

- Health inspection reports
- Underground tanks
- Estimated deferred maintenance
- Estimated functional obsolescence

Area-specific data (3-12)

Neighborhood (3,4,6)

- Neighborhood boundaries and uses

A neighborhood is a group of complementary land uses that are similarly affected by the operation of the forces that affect property value. The geographic boundaries of the subject's neighborhood are indicated by:

- Land use changes
- Transportation arteries/bodies of water
- Changes in elevation and topography

- Neighborhood characteristics-residential, commercial, retail, or industrial use; rural, suburban, city, or CBD; age, condition, and economic trends

Define the characteristics of the neighborhood and describe how these characteristics could impact the subject's ability to generate revenues.

- Neighborhood buildings

Make an inventory of the improvements surrounding the subject property and consider what impact they might have on the subject's revenue-generating ability. Investigate the following factors:

- Types of building improvements
- Style, size, density, vacancy levels, rental rates, and trends
- Effective ages and maintenance or condition
- New development and construction
- Competitive facilities, particularly food and beverage
- Immediate generators of visitation

- Adverse conditions such as noise or other nuisances
- Future trends and potential changes in neighborhood characteristics. What impact will these changes have on the subject property?

Assessed valuation and real estate and personal property taxes (12)

- Estimate of future property taxes for the subject

Evaluate local assessing practices and determine which jurisdictions levy real estate and personal property taxes.

- Current assessment of subject

Obtain the name, address, and phone number of the assessor and a tax map showing the subject acreage in square feet and length of boundaries. Research lot and block number, tax identification number, current assessed value of land and building and assessment date.

- Basis for assessment -- income, cost, sales comparison, change upon sale? Consider how the assessed value is calculated for land, improvements, and personal property.

- Date and frequency of assessment, fiscal year
- Five-year and current tax history
- Future trends in equalization rates, assessed values, and mill rates for the subject's taxing jurisdictions
- Comparable hotel parcel numbers and assessments of land and buildings

Obtain information on how comparable hotels in the area are assessed. What are the assessed values of comparable hotels for land, improvements, and personal property on a per-room basis?

- Tax abatement

Does the subject property qualify for or receive any form of tax abatement? If so, how is it calculated and what impact does it have on property tax liability?

- Special and future assessments

Investigate probable future changes in assessments including any special assessments and tax liabilities. The assessing department

can sometimes provide information related to local hotel trends, including:

- Proposed hotels or hotels under construction
- Land sales of hotel sites
- Sales of hotels
- Rates and occupancies of local hotels
- Names of hotel owners

Zoning/building department (2-12)

- Jurisdiction covering the subject property and, when appropriate, adjacent jurisdictions
- Name, address, and phone number of all contacts
- Proposed hotel development in market
 - Names of developers, hotel companies, etc.
 - Estimated completion dates

-
- Hotels under construction
 - Status of each proposed hotel
 - Description of approval process
 - Zoning of subject-historical and current. Obtain zoning map and a copy of zoning regulations. Investigate the following:
 - Conforming or nonconforming use of subject property
 - Height restrictions
 - Lot coverage, number of units, size restrictions, floor-area ratio
 - Setback restrictions
 - Parking requirements
 - Sign restrictions
 - Other restrictions
 - Moratoriums on building, utilities
 - Environmental impact study required for new development

-
- Zoning of surrounding land uses
 - Future of neighborhood
 - Floodplain areas
 - Zoning trends for area
 - Potential/probability of zoning changes
 - Building permits-five-year history, number, and dollar value
 - Ability to expand subject property

Planning department

- Jurisdictions encompassing the subject property and adjacent jurisdictions
- Occupancy and rates of existing hotels
- Proposed hotels, additions, expansions, or renovations
- Master (renewal) plan for development

-
- Pertinent documents
 - Land use map
 - Economic/demographic studies
 - Transportation studies
 - Directions of growth-industrial, commercial, redevelopment
 - Availability of public development or redevelopment funds/tax incentives for hotels
 - Proposed hotels or hotels under construction

Highway/transportation department (3- 11)

- Name, address, and phone number of all contacts
- Origination and destination studies
- Traffic flow/count maps
- Future changes in transportation-road improvements and traffic rerouting roadway changes such as left-turn lanes, lights, curb cuts, medians, turn restrictions, and additional lanes

- Historic and current traffic counts, toll receipts
- Proposed hotels or hotels under construction

Economic and demographic data - trends. During fieldwork the appraiser collects economic and demographic data describing the local economy and population. Data from the past five to 10 years provides a useful benchmark, but projected data are more useful for predicting future trends. Economic and demographic information is used to forecast changes in lodging demand and food and beverage usage over the projection period.

- NAIC employment within the local market area
- Population-migration vs. births, peak vs. annual
- Population age distribution
- Income levels and effective buying income
- Retail sales
- Sales at eating and drinking establishments

-
- Office space occupancy levels, absorption trends
 - Major businesses by employment sector, number of employees, ability to generate hotel demand
 - Industrial space occupancy levels, absorption trends
 - Unemployment trends
 - Housing starts
 - Building permits-number, dollar value
 - Area maps
 - Major generators of visitation Room/bed tax data
 - Visitor statistics, area attractions

Chamber of commerce/economic development agencies (3-12). The local chamber of commerce and economic development agencies can often supply much of the economic and demographic data previously described. The following information should be sought.

- Name, address, and phone number of all contacts

-
- Area description-growth, economic and population trends, industries, demand generators
 - Businesses entering and leaving area
 - Area attractions -- historical and projected visitation
 - Introductions to area officials, hotel association, etc.
 - Occupancy and average rates at existing hotels, area-wide average
 - Proposed hotels and hotels under construction
 - Miscellaneous economic and demographic data

Newspapers (1-18)

- Advertising/research department
 - Economic and demographic data
- Real estate department
 - Articles on recently announced commercial/hotel projects
 - Stories on recent hotel or land sales

Demand generators of visitation (3- 11). The appraiser should develop a list of market area demand generators.

- Typical hotel demand generators
 - Major companies
 - Office and industrial parks
 - Scenic sites
 - Hospitals-local, regional, or national specialty
 - Military installations
 - Colleges
 - Amusement parks
 - Resort facilities
 - Government offices
 - Residential developments
 - Racetracks

- Sports stadiums
- Historic attractions
- Retail shopping
- Theaters
- Museums
- World's and state fairs
- Sporting events
- Festivals
- Shows
- Historic events
- National and state parks
- Courts
- County seats and state capitals
- Information collected about each generator
 - Description

- Proximity to subject
- Type of visitors
- Visitor counts, admission charges, recent changes
- Origin of visitors
- Accommodations required
- Season of visitation
- New generators entering the market

Airport authority (4- 12). If the market benefits from a nearby airport, data related to its usage should be obtained.

- Passenger and cargo traffic-past five years, projected, monthly fluctuations
- FAA terminal forecast of projected enplanements
- Airlines and number of flights

-
- Physical description of airport
 - Airport expansion plans
 - Cities served (origination)
 - Restrictions on aircraft size, times of usage, number of days closed annually

Convention center and visitors bureau (4-11). A convention center can be a major generator of hotel demand. Convention centers and area attractions are often promoted by a visitors' bureau.

- Name, address, and phone number of all contacts
- Physical description of convention center-size, capacities, age, facilities
- Historic and projected number of conventions and delegates, seasonality
- Average expenditure per conventioner
- Average length of stay, average convention size

- Future calendar, number of future events
- Marketing plan
- Promotion budget-past five years and projected, deficit funding
- Nature and type of events-local, state, regional, national
- Visitor statistics
- Hotel association
- Proposed hotels and hotels under construction

Car rental agency (4-11)

- List of major companies renting cars
- Number of cars rented monthly, annually
- Average length of rentals
- Renter's points of origin

Competitive hotels (5-11). Much fieldwork is directed toward investigating competitive hotels. The data collected are used to quantify existing lodging demand and evaluate the relative competitiveness of area hotels.

- Name and address of competition
- Name of owner, management company, franchise
- Location and distance from subject and demand generators
- Access and visibility
- Year opened
- Number of rooms
- Various room types (e.g., king, double-double, ADA-equipped, etc.)
- Square foot area
- Rates-high, medium, or low
- Type of construction
- Income-producing facilities

- Name of restaurants, number of seats, type of service, hours of operation
 - Other food and beverage service
 - Banquet and meeting rooms
 - Amenities
-
- Interior or exterior corridors
 - Condition and renovation plans
 - Expansion plans
 - Layout and functional utility
 - Brochure description
 - Published rates and special rates
 - Occupancy and average rates, existing and historic trends
 - Percentage of reservations from central reservation system
 - Market segmentation (commercial, meeting, leisure)
 - Usage of food and beverage facilities

-
- Seasonality of demand and usage
 - Major customers
 - Frequent travel programs
 - Special services provided
 - Unionization of workers
 - Proposed hotels and hotels under construction
 - Additions and renovations of existing hotels
 - Hotels for sale or recently sold in market area
 - Photographs of properties

Rooms, bed, or occupancy tax (4- 10). Many jurisdictions impose a rooms tax, which is typically based on a percentage of rooms revenue. Tax data are often available and show revenue trends for the market area as well as individual properties.

- Definition of taxable properties, change in number of taxable rooms

-
- Method of tax computation
 - Historical taxes per month-past five years, future projections
 - Identification of tax by property-occupancy and rate if available
 - Historical tax rates and changes in rates

Hotel association (5-11). Some market areas have organized hotel associations, which can provide useful information.

- Name, address, and phone number of all contacts
- List of existing hotels, market segmentation, rates, occupancies
- Total room count-current and historical
- Taxes per room or bed
- Hotels recently withdrawn or added to supply
- Sales transactions involving hotels
- Proposed hotels or hotels under construction

Competitive restaurants and lounges (7-11). The following information is sometimes helpful in analyzing the competitiveness of the subject's food and beverage facilities.

- Name and address of competing facility
- Number of seats
- Year opened
- Meals served, days open
- Affiliation
- Name of owner
- Renovation, expansion plans
- Seasonality-weekly, monthly
- Type of menu, service
- Type of patrons-age, income
- Decor/theme

- Entertainment policy
- Average check
- Covers, turnover
- Annual sales
- Reputation
- Location relative to subject property
- Condition

Liquor license laws (2-11). The availability of a liquor license for a proposed hotel and the ability to transfer the liquor license of an existing hotel can be important considerations.

- Acquisition, time, cost, limitations
- Restrictions
 - Ratio of liquor to food
 - Open to public

- Required unit of sale
 - Minimum age
- Types of licenses

Sales of competitive hotels

- Local data bases that accumulate information on property transfers
- Hospitality Market Data Exchange - a national clearinghouse of sales transactions involving hotels and motels.

Commercial real estate firm/board/brokers/developers/relocation services (1-18)

- Apartments that accommodate extended-stay demand (less than six months)
- Inventory of commercial, office, industrial, and retail space Historic absorption, anticipated growth

- New projects, expansions, renovations

Useful data may include developer, location, size (in square feet), opening date, description of major committed tenants, projected occupancy, and tenant mix. Tenant mix by NAIC code and national vs. local company can indicate a hotel's ability to generate room nights.

- Geographic patterns of growth in office, industrial, retail, and residential space
- Source of tenants
- Sales transactions involving hotels
- Proposed hotels or hotels under construction

Local appraisers, counselors, bankers (I- 18)

- Land and hotel sales
- Occupancy and average rate
- Market segmentation

-
- Proposed hotels, additions, and expansions
 - Economic and demographic data
 - Land use, value, and property tax rate trends

Photographs. For a permanent record of site and neighborhood characteristics, the appraiser may want to take the following photographs:

- Access to and visibility of subject property
- Entrance and sign
- View of subject - four sides
- View from subject - four sides
- Traffic photos - all directions
- Interior photos – lobby, registration, rooms, food and beverage outlets, meeting space, recreational facilities, back-of-the-house
- Surrounding land uses
- Competitive hotels

- Significant demand generators

The preceding description of a data collection checklist is quite detailed. Appraisers should utilize a checklist such as this in a hotel market study and valuation to ensure that all data sources are contacted and all relevant information is collected. When performing fieldwork, it is wise to collect as much information as possible, even if it does not appear to be important. Returning to a market to collect overlooked information can be costly and time consuming.

DATA COLLECTION TECHNIQUES

Once the type and source of data have been defined, various techniques can be applied to collect data. Appraisers know that some types of data are readily available, while others must be carefully researched. Some data sources may willingly assist the collection efforts, while others may try to withhold

accurate information in an attempt to influence the ultimate results. Using proven data collecting techniques, however, appraisers can obtain the best information available and usually screen out any bias or self-interest.

Data collection can be accomplished with a combination of techniques:

- 1) Personal observation
- 2) Review of published data
- 3) Face-to-face and telephone interviews
- 4) Written surveys

The order of this list reflects the perceived reliability of the data collected by each technique. For example, information derived from personal observation is highly reliable and an experienced appraiser will not be influenced by self-interest or bias. Published data and interviews are somewhat less reliable. Written responses are the most suspect because each respondent is an isolat-

ed, unknown party. By understanding the shortcomings of each technique, an appraiser can employ the techniques in a manner that will produce reliable results. Using the data collection checklist as a framework for the types of information needed for a hotel market study and valuation, all four data collecting techniques are illustrated.

Personal Observation

Personal observation is generally employed during fieldwork. The appraiser visits the site, the neighborhood, and the market area; inspects the subject property (if existing), competitive properties, and demand generators; and makes any other observations necessary to formulate the required conclusions.

- 1) Suitability of the site for hotel use
 - a) Size
 - b) Frontage
 - c) Topography

- d) Excess land
 - e) Landscaping
 - f) Access
 - g) Visibility
 - h) Utilities
 - i) Parking area
- 2) Suitability of improvements and amenities
- a) Building layout and design
 - b) Age and condition
 - c) Functionality
- 3) Desirability of the surrounding neighborhood
- a) Types of area land usage-i.e., retail, commercial, industrial
 - b) Age and condition of nearby improvements
 - c) New development underway
 - d) Highway patterns

-
- e) Demand generators
- 4) Existing and projected competitive environment
 - a) Competitive lodging facilities (existing and proposed)
 - i) Location, access, and visibility
 - ii) Facilities and amenities
 - iii) Age and condition
 - iv) Chain affiliation
 - v) Competitiveness
 - b) Competitive food, beverage, and banquet facilities
 - c) Competitive amenities
- 5) Market sales of competitive hotels

Personal observation makes use of the appraiser's experience and hotel expertise. Intermediate conclusions are formulated by comparing the observations and the outcome of previous assignments with the observations made during the current assignment. Personal observation is the most reliable data

collection technique because it is not influenced by external bias, which can slant the results derived from other techniques.

Published Data Sources

Published data includes all information gathered by businesses and organizations that can be considered within the public domain -i.e., readily available to anyone either free or for a price. This type of data is generally reliable and forms the basis for many important conclusions derived in hotel market studies and valuations. Some conclusions that can be supported by published data sources are outlined in Table 2.1 and explored in the discussion that follows.

Table 2.1 Conclusions and Sources

Conclusions

Neighborhood characteristics

Published Data Sources

Zoning manuals, master plans

Local economic and demographic conditions	Economic and demographic data
Current room night demand by market segment	Directories of lodging facilities
Existing and projected competitive environment	Occupancy and average rate data
Expected future trends in lodging demand	Economic and demographic data
Projected usage and revenues from food, beverage, and banquet facilities, as well as other services and amenities	Hotel operating statistics
Projected operating and fixed expenses	Hotel operating statistics
Income capitalization parameters such as mortgage interest and amortization rates,	Mortgage rate data

loan-to-value ratio, term, equity yield,

terminal capitalization rate, and inflation rate

Opinion of value via cost approach

Construction cost data

Opinion of value via sales comparison approach

Hotel market sales data

Zoning manuals

Published by local municipalities, zoning manuals describe the uses permitted under a jurisdiction's zoning regulations. Zoning manuals establish what can be constructed and set forth development restrictions such as site density, building height, setbacks, and site utilization. Hotel market studies and valuations generally include a preliminary investigation of zoning to ensure that the subject property is in conformance and that the surrounding zoning per-

mits uses that will enhance the neighborhood and the subject's long-term economic viability. The property owner has the ultimate responsibility to see that the project is developed in accordance with local regulations.

Master plans

Most municipalities have master plans which describe current and future land utilization policies. These plans are generally prepared periodically by the local planning department and indicate how a municipality views development and real estate trends.

Economic and demographic data

The term *economic and demographic data* refers to a wide range of statistics relating to historic and future trends in the economy as well as changes in population. This type of data may be produced by numerous sources, including econometric firms, government agencies, and professional journals.

Economic and demographic data are studied to estimate future changes in hotel demand. A hotel market study starts by estimating the current or base level of hotel demand employing a unit of demand known as a room night. The current level of demand is of interest, but more important is the future level of hotel demand in each projected year. This calculation establishes the estimated area-wide occupancy. Obviously, future hotel demand will either increase, decrease, or remain level. Economic and demographic data provide a basis for measuring future changes by imputing movement in hotel room night demand based on similar trends indicated by the data.

When selecting economic and demographic data for use in a hotel market study and valuation, the appraiser looks for statistics that are likely to reflect future variances in lodging demand. The key to this concept is the future. Because feasibility and value are tied to the present worth of future benefits, historic data trends are not important unless they suggest future events. Economic and demographic forecasts are far more meaningful because they represent a view of the future and can be extrapolated to model probable changes in lodging demand.

Unfortunately, most published economic and demographic data merely provide a view of history; appraisers rarely have access to a large amount of data representing future economic expectations. During fieldwork, all relevant economic and demographic data should be accumulated and researched.

Sources of economic and demographic data. Table 2.2 shows the type of economic and demographic information that is typically available and its likely source.

Table 2.2 Economic and Demographic Data Available by Subscription

Woods & Poole provide:

- Annual historical population data by county, state, and nation
- Future population projections by county, state, and nation

-
- Annual historical population age distribution by county, state, and nation
 - Annual historical retail sales data by county, state, and nation
 - Future retail sales projections by county, state, and nation
 - Annual historical effective buying income (EBI) by county, state, and nation
 - Future effective buying income (EBI) projections by county, state, and nation
 - Annual historical eating and drinking place sales by county, state, and nation
 - Historical population data by MSA, state, and nation
 - Future population projections by MSA, state, and nation
 - Future personal income data projections by wages and salaries, other labor income, proprietors' income, dividends-interest and rent, transfers to persons, income per capita, number of households, persons per household, mean household income by MSA, state, and nation (The same data are available on a historical basis.)

-
- Historical population data by age group arranged by MSA, state, and nation
 - Future projections of population data by age group arranged by MSA, state, and nation
 - Future projections of employment by major categories such as agricultural; mining; construction; manufacturing; transportation, communications, and public utilities (TCPU); wholesale trade; retail trade; finance, insurance, and real estate (FIRE); services; federal civilian; government; military; state and local government - arranged by MSA, state, and nation (The same data are available on a historical basis.)
 - Future population projections by MSA, state, and nation

The Federal Aviation Administration (FAA) can provide:

Future air carrier enplanements and operations projections made by specific airports (The same data are available annually on a historical basis.)

Restaurant Business magazine publishes:

Restaurant Activity Index (RAI) and Restaurant Growth Index (RGI), available annually on a historical basis

The data listed in Table 2.2 can be obtained for a reasonable cost and provide an excellent starting point for forecasting hotel demand trends. Most of these data focus on future projections, which are most useful to appraisers performing hotel market studies and valuations. Other economic and demographic data are gathered during fieldwork, from discussions and interviews with local officials and other knowledgeable individuals. Table 2.3 lists information that is normally used in the economic market study and appraisal of hotels and indicates likely data sources. The appraiser should keep in mind that the following data represents secondary research and, in some cases, the qualitative information associated with it may be subject to the bias of the organization providing the data.

Table 2.3 Other Data Sources

<u>Type of Data</u>	<u>Sources</u>
Office space absorption	Real estate brokers Chamber of commerce
Office vacancies	Real estate brokers Chamber of commerce
Office space under development	Real estate brokers Chamber of commerce Building department
Inventory of office space	Real estate brokers Chamber of commerce
Inventory of retail space	Real estate brokers Chamber of commerce
Inventory of industrial space	Real estate brokers Chamber of commerce
Highway traffic counts	Highway department

Origination and destination studies	Highway department
Major business by employment sector & number of employees	Chamber of commerce Economic development authority Department of Labor
Unemployment percentages	Department of Labor
Building permits-number and value	Building department
Housing starts	Building department
Hotel rooms tax	Tax collector
Number of visitors to area attractions	Visitors' and convention bureau
New businesses entering area	Chamber of commerce Economic development authority
Businesses leaving area	Chamber of commerce Economic development agency
Convention center usage,	Visitors' and convention bureau

Number of groups, Number of Attendees,
 Types of events, Expenditure per attendee,
 Average length of stay, Headquarters hotels,
 Advertising budget

Assessed values

Assessor

Air cargo data

Federal Aviation Authority

Airport authority

Tourist visitation

Tourism authority

Visitors' and convention bureau

Analyzing economic and demographic data. Once the data are collected, they must be organized into a workable format. Economic and demographic data are generally used to forecast trends in lodging demand, so the appraiser is interested in both the direction of change and the rate of this change. The following table of highway traffic counts provides an illustration of a typical statistical analysis for a given demographic.

Table 2.4 Annual Average Daily Traffic (AADT) Counts

<u>Year</u>	<u>Long Island Expressway</u>	<u>Percent Change From Previous Year</u>
1994	28,950	----
1995	29,983	3.6 %
1996	29,082	(3.0)
1997	31,568	8.5
1998	33,910	<u>7.4</u>

Annual compounded percent

change from 1994: 4.03 %

When evaluating trends in economic and demographic data, the appraiser is most interested in the direction and rate of change. If the data come from two consecutive years, the annual percent of change may be used; if the data span more than two years, the annual compounded percent of change should be calculated instead.

Constant dollar calculations using CPI. The annual compounded percent change calculations are used to project future changes in lodging demand. Because the unit of lodging demand, the room night, is a real number unaffected by factors such as inflation, all growth rates must be calculated in real terms, using constant dollars rather than inflated dollars. The following table illustrates this process.

Table 2.5 Retail Sales
(in millions)

<u>Year</u>	<u>Retail Sales</u>		<u>Percent Change</u>
	<u>(Current Dollars)</u>	<u>(1998 Dollars)</u>	<u>Retail Sales from Previous Year</u>
1995	\$1,143,539	\$1,223,076	----
1996	1,240,106	1,288,319	+ 5.3%
1997	1,326,962	1,347,631	+ 4.6
1998	1,410,385	1,410,385	+ 4.7
1999	1,492,920	1,460,660	+3.6

Annual compounded

percent change from 1995: 4.5%

Between 1995 and 1999, retail sales increased a total of 31% in current (inflated) dollars. Performing the same calculation with 1998 constant dollars shows a 19% increase. The real growth in retail sales over this period would be 19%. The difference between the 31 % inflated dollar calculation and the 19% constant dollar calculation is 12%, which can be attributed to inflation, not to real growth in retail demand. The annual compounded percent of change in real terms over this period is 4.5%.

Whenever economic and demographic data reflect dollar amounts at different points in time, the data should either be inflated or deflated to a standard, or constant dollar, year. The calculation requires a Consumer Price Index (CPI) adjustment. The following table shows the annual CPI between 1978 and 1999.

Table 2.6 Consumer Price Index

<u>Year</u>	<u>CPI</u>
1978	65.2

1979	72.6
1980	82.4
1981	90.9
1982	96.5
1983	99.6
1984	103.9
1985	107.6
1986	109.6
1987	113.6
1988	118.3
1989	124.0
1990	130.7
1991	136.2
1992	140.3
1993	144.5
1994	148.2
1995	152.4
1996	156.9
1997	160.5
1998	163.0
1999	166.6

The CPI adjustment required to make all dollar amounts reflect 1998 dollars is shown below.

<u>Year</u>	<u>Retail Sales</u> <u>(Current Dollars)</u>
1997	\$1,326,962
1998	1,410,385
1999	1,492,920

Adjust 1997 current dollars to 1998 constant dollars as follows:

$$\frac{1998 \text{ CPI}}{1997 \text{ CPI}} = \frac{163.0}{160.5} \times \frac{\$1,326,962}{1} = \$1,347,631$$

Adjust 1999 current dollars to 1998 constant dollars as follows:

$$\frac{1998 \text{ CPI}}{1999 \text{ CPI}} = \frac{163.0}{166.6} \times \frac{\$1,492,920}{1} = \$1,460,660$$

Directories of lodging facilities

The level of supply represented by the number of competitive hotel rooms in the area is a factor in estimating the area's lodging demand when using the buildup approach based on an analysis of lodging activity. The size and types of lodging facilities operating in the market also influence the competitive environment. Before beginning fieldwork, an appraiser can identify most hotels in the area using various directories of lodging facilities. These directories typically provide the name of the hotel, address, telephone number, room count, facilities and amenities, and published room rates. Directories such as the Mobil Travel Guide and the AAA Travel Guide include a quality rating for each property, which can be helpful in evaluating competitiveness.

The key to selecting directories of lodging facilities is to be sure they are up to date, complete in their coverage of the area, and contain the room count for each hotel. Specialized directories may provide additional information such as descriptions of meeting and banquet rooms, the date the hotel opened, and the names of important contacts. The directories of lodging facilities listed below provide good information on current lodging supply.

Hotel & Travel Index

500 Plaza Drive

Secaucus, NJ 07096

(201) 902-2000

www.htihotelink.com

Official Meeting Facilities Guide

500 Plaza Drive

Secaucus, NJ 07096

(201) 902-2000

www.omfg.com

Mobil Travel Guide

Prentice-Hall

108 Wilmot Road, Suite 450

Deerfield, IL 60015

www.mobil.com/online_store/

AAA Tour Books

Complimentary to AAA members at local offices

www.aaa.com

(407) 444-7000

Smith Travel Research

105 Music Village Boulevard

Hendersonville, Tennessee 37075

www.str-online.com

(615) 824-8664

Occupancy and average rate data

Information on the current occupancy and average room rate of each competitive hotel in the market area is extremely important in developing a hotel market study and valuation. These facts serve as a basis for estimating existing lodging demand and the relative competitiveness of all the properties in the market. Since this type of property data is generally considered confidential, very few sources compile and publish this information. Two publications, *Lodging 400* and *Texas Rooms Tax*, provide data from which appraisers can calculate occupancy and average room rates for individual hotels.

Each August *Lodging Hospitality* magazine publishes *Lodging 400*, the results of a survey ranking the top 400 hotels in the country on the basis of revenue performance. The issue contains a number of tables identifying each hotel and pertinent information such as room count, occupancy, total sales, total sales per available room, total guest room sales (rooms revenue), total food and beverage sales, total other revenue, and number of employees. With this information the appraiser can calculate the average room rate by dividing the

guest room sales by the room count times the occupancy percentage times 365. Data from *Lodging 400* are generally accurate and provide a good benchmark for the many areas of the country covered in the survey.

Texas Rooms Tax is another valuable data source. A number of taxing jurisdictions in the United States collect a hotel rooms tax based on a percentage of gross rooms revenue. In most jurisdictions this information is considered confidential and available only in aggregate form, but the state of Texas actually publishes hotel rooms tax information each month. Knowing the rooms tax paid and the rooms tax percentage, a property's total revenue can be calculated. If the average room rate can be estimated, the actual occupancy is then determined by division.

Occupancy and average rate data compiled on an aggregate, area-wide basis are often readily available. This information is sometimes recorded by local hotel associations, visitors' and convention bureaus, accounting firms, assessing departments, and other government agencies. Although area-wide occupancy and rate data are compiled for most major cities, obtaining this

information depends on the cooperation of individual hotels. Sometimes the data supplied in response to these surveys are skewed upward or downward, depending on the bias of the participants.

Area-wide occupancy and average rate data should serve as a check to substantiate the information on individual hotels collected in the field. The room night analysis calculation presented later in this text will demonstrate how area-wide occupancy is derived from the occupancy levels of the competitive hotels comprising the market. It is this calculated occupancy that should be compared with published area-wide data. Any major variance indicates a potential error in one of the data sources that should be investigated. One source of occupancy and average rate data on an area-wide, aggregate basis is Smith Travel Research, and their telephone number is (615) 824-8664.

Hotel operating statistics

One of the primary objectives of a hotel market study and valuation is to derive a forecast of revenues and expenses for the subject property. The basis for such a forecast is a supply and demand analysis, which includes an estimate of the subject's occupancy and average room rate (rooms revenue) and a host of hotel operating statistics that support the forecast of other revenue sources and expenses. For existing hotels, the best source of operating statistics is, of course, the hotel's actual operating history. These data provide a benchmark that can be easily adjusted to project changes in occupancy levels and to evaluate the competence of management. The expected financial performance of proposed hotels can be based on the operating statistics of comparable properties. Comparability encompasses factors such as average room rate, room count, occupancy, ratio of food and beverage revenue to rooms revenue, type of facilities (convention, resort, all-suite, extended-stay), franchise affiliation, management, and geographic proximity. The degree of comparability between the hotels providing operating statistics and the subject property is an important consideration in evaluating the reliability of the projections developed.

When an appraiser cannot find actual operating statistics from comparable properties, there is no other alternative but to use the "data of last resort"-the national averages compiled by hotel accounting firms. Each year several accounting firms survey the financial statements of hundreds of hotels across the country. Using a computerized database program, the financial statements are sorted according to various characteristics (e.g., geographic location, size, occupancy) and averaged. The results are published in tabular form and provide several types of ratios such as percentage of total revenue, percentage of rooms revenue, amount per available room, and amount per occupied room.

Hotel operating statistics derived from an existing subject property's actual financial results, from comparable hotels, or from a national average must be arranged in a format that facilitates the comparison of these data with the forecast assumptions for the subject property. This process will be described more fully in subsequent chapters.

Mortgage rate data

Investors typically purchase hotels based on a valuation approach that employs a mortgage-equity technique. The mortgage component of this technique represents the rates and terms lenders currently require on hotel mortgages. This information is plugged into a formula to derive capitalization and discount rates.

Data for the mortgage component of the formula can be derived by surveying hotel lenders who actively make hotel loans. This method will work if the appraiser has a close relationship with lenders who will divulge confidential information in an accurate manner. However, a better source of data is the American Council of Life Insurance (www.acli.com). This organization, which represents 20 large life insurance companies, collects and disseminates the rates and terms of mortgages actually originated by their members. Use of these data will be described later.

Construction cost data

The basis for the cost approach to value and an estimate of economic feasibility is a reliable estimate of the cost to produce a substitute property with equal utility. The cost of replacing a hotel is generally estimated on either a cost-per-square-foot or a cost-per-room basis using data from a construction cost manual published by a recognized cost reporting service. When any type of hotel construction cost data is used, the appraiser must verify that all components -- e.g., improvements, furniture, fixtures, equipment, soft costs, pre-opening and working capital--are included in the final estimate. Complete hotel construction cost data can be obtained from Marshall & Swift (www.marshallswift.com), whose phone number is (213) 683-9000.

Hotel market sales data

In the sales comparison approach the appraiser compares recently sold, comparable properties with the subject property, adjusting their sale prices for differences such as market condition, time, age, location, construction, physi-

cal condition, layout, equipment, size, and external economic factors. Although hotel investors seldom rely on sales comparison as the sole indication of value, the approach can provide support for the value derived in the income capitalization approach.

Hotel sales data for the local market area should be accumulated during the fieldwork phase of the assignment. Other appraisers, the local assessor, and the hotel association are generally familiar with recent transfers and can provide valuable information

Face-to-Face and Telephone Interviews

Much of the data and information collected during fieldwork is accumulated through interviews. Interviews may be conducted to gather non-confidential factual data such as the assessed value of the subject property, the names and number of employees of local businesses, zoning regulations, and the path of a new highway. Non-confidential factual interviews are easily conducted

once the individual with the necessary knowledge or data has been identified. Factual data are often embodied in written documents or publications which can be easily acquired. Non-confidential factual data are usually accurate, particularly if they come from a recognized source such as a governmental agency, a chamber of commerce, or a university.

Subjective non-confidential data may also be obtained through interviews. This information is often more opinion than fact. The interviewer may ask: How will economic conditions change over the next five years? Will the proposed hotel ever be built? What property will the subject compete with? Why does this particular hotel have the highest occupancy rate in the market? If subjective data are to be meaningful, the source must have knowledge and expertise on which the appraiser can rely. Subjective data are more prone to error than factual data; therefore, credible sources are essential.

The most difficult type of data to elicit in an interview is data perceived to be confidential. Information of this type may relate to the occupancy, average rate, and market segmentation of competitive hotels or the financial operat-

ing statistics and development plans for proposed hotels. The nature of the assignment may affect the availability of data perceived to be confidential. For example, a competitive hotel is more likely to provide occupancy and average rate statistics to support a property tax appeal that could reduce real estate taxes than to assist a market study aimed at adding additional rooms to the market.

When confidential information is provided to the appraiser, it may be slanted in an attempt to influence the outcome of the study. Hotel managers are seldom enthusiastic about the prospect of additional competition; their responses to questions about future lodging trends and the success of their properties may not be entirely reliable.

Interview techniques

Certain procedures and checks can be useful in gathering confidential data. To illustrate, assume that an appraiser is researching the occupancy of competitive hotels for an assignment involving a proposed property.

To obtain relevant information, interviews are set up with the general manager or high-ranking personnel of a competitive hotel -- i.e., the assistant manager, front office manager, or director of sales. Because those interviewed might tend to underestimate occupancies, the appraiser must be well prepared before the interview. The key to this preparation is to have already collected accurate occupancy data from at least one hotel. This information can serve as a benchmark to evaluate the responses offered by the management of other lodging facilities.

For example, in performing the market study and valuation of the proposed hotel, the appraiser consults *Lodging 400*, published by *Lodging Hospitality* magazine, and discovers that the actual occupancy of a nearby Holiday Inn was 73% the previous year. This piece of data establishes a credible benchmark that can be useful in interviewing the hotel managers. After a series of

introductory questions on the characteristics of the local market and the competitive environment, the appraiser asks the important question: "Would you mind telling me what your occupancy was last year?" The general manager being questioned may act somewhat surprised at such a question and may respond vaguely, but he might answer like this: "You know, we have had several hotels open in the market and this has affected our operation negatively. My occupancy has dropped. I think we ended last year at about 65%." To check the accuracy of this figure, the appraiser immediately follows up with, "That low? What do you think the occupancy of the Holiday Inn is?" Hotel managers regularly trade occupancy data with their nearby competitors, so it is not unusual for them to have this information readily available. In this case, if the general manager was truthful about the 65% occupancy, he will probably say that the Holiday Inn was operating at 73%. If, however, the occupancy estimate was biased downward -- i.e., it was really 72%, but he told you 65%-the manager would probably make the same adjustment to the Holiday Inn estimate and respond "66%" instead of "73%." Thus, the benchmark shows a downward bias of about seven percentage points, which could probably be applied to the 65% estimate, bringing it up to 72%. The appraiser applies this same procedure to check the occupancies of all the other competi-

tive hotels in the market. The procedure can also be utilized for other, competitive interviews as well as interviews with the chamber of commerce, visitors and convention bureau, assessor, building department, and so forth. Note that responses may be biased in either direction, depending on how the individual interviewed perceives the study and its likely effects.

When the results of the appraiser's interviews are organized on a spreadsheet, natural biases become apparent. By exercising good judgment the appraiser will generally be able to come up with a reasonably reliable estimate of each property's occupancy.

Although it may be difficult to obtain unbiased occupancy data from general managers, most will provide their average room rates and market segmentations. However, it is advisable to test their responses in these areas also if supporting data are available from other properties.

Written Surveys

Another data collection technique is the use of written surveys. A mass mailing of questionnaires is considerably less time consuming than face-to-face or telephone interviews. The success of a written survey depends on several factors.

- The survey's subject matter must be compatible with this form of data collection.
- The survey should be simple so it can be completed in a short period of time.
- The survey must be mailed directly to individuals who fully understand the survey's subject matter.
- Sufficient time must be available to develop, mail, and collect the responses to the survey.

Not all of the data needed to perform a hotel market study and appraisal can be collected using written surveys. Most confidential information, for exam-

ple, must be obtained through face-to-face interviews. Economic and demographic data and statistics are generally available from published data sources. Written surveys work well when there are a large number of data sources and the information to be collected is not perceived as confidential. One type of data that fits these criteria is information obtained from demand generators.

A demand generator is anything that attracts overnight visitors into a market area who are likely to use the facilities of a hotel. Demand generators include airports, amusement parks, association headquarters, casinos, colleges and universities, companies and businesses, convenient highway stopping points, convention centers, county seats and state capitals, courts, festivals, government centers, historic attractions and events, hospitals, military installations, museums, offices and industrial parks, parks and scenic areas, racetracks, regional shopping centers, residential developments, resort areas, special events, sports attractions and events, theaters, and tourist attractions.

One procedure for quantifying hotel room night demand is to survey a market's demand generators and estimate the number of visitors they attract over a period of time who will use the facilities of a hotel. This type of information is usually considered non-confidential and can easily be obtained with written surveys.

The design of a written survey is a crucial element in obtaining an accurate response. Most people are bombarded with surveys and have little incentive or time to fill them out, so a short, easy form is essential. The format shown in Figure 2.2 can be used to design a written survey to compare demand generator information.

In addition to designing a form that is simple to complete, the appraiser should include a self-addressed, stamped envelope with the survey so it can be returned quickly.

A good way to increase the survey's response rate is to use a cover letter signed by someone known to the survey's recipients. Depending on the nature of the assignment, this individual could be the local mayor, another government official, the president of the chamber of commerce, a prominent business leader, or a local celebrity interested in the project. The cover letter should also be brief and to the point and explain how the recipient will benefit by responding.

Figure 2.2 Hotel Survey Boilerplate

A new hotel is planned in your competitive market area. Responses to the following questions will assist us in assessing what type of lodging facility will best serve the needs of your firm and other businesses in your area. While we realize that you may not have precise information regarding many of the following questions, we would appreciate your best estimates.

1. Your Name/Title _____
2. Company Name/ Department _____
3. Street Address _____
4. City, State, Zip _____
5. Telephone _____
6. What is the current number of employees?
7. What are the primary business activities at:

this location_____.

In your firm _____.

in your department _____....

8. Within the next year, is the number of employees in your FIRM/DEPARTMENT projected to (please circle)

Increase?

Decrease?

Remain the same?

By how much?

By how much?

9. What are the seasonal percentages of visitors to your FIRM/DEPARTMENT requiring accommodations?

Winter _____% Spring _____% Summer _____% Fall
_____%

10. What percentage of the visitors described above currently ...

Book their own accommodations _____%

Have someone within the firm book their accommodations _____%

Please indicate the name, department and telephone number of the person within your firm responsible for booking accommodations.

11. Reasons for Overnight Stay

(Please complete the following chart)

(a) What percentage of the people visiting your FIRM/DEPARTMENT requiring overnight accommodations do so for the reasons indicated?

(b) What is the average number of nights per visit?

(c) On the average, how many people stay in one hotel room per visit?

.....

Reason for Overnight Stay	(a) Percent of Total Visi-	(b) Average Length of	(c) No. of People per
---------------------------	-------------------------------	--------------------------	--------------------------

	tors	Stay	Room
	Relocation		
	Training		
	Temporary Assign- ment		
	Consulting		
	Meeting/Conference		
	Other _____		
	Total	100%	

12. Current Lodging Facilities Used ...

(Please complete the following chart)

Which lodging facilities does your firm currently use? (Please list in the order that you would select them.)

Name of Lodging Facility Room Rate Charged

1.

2.

3.

4.

13. Choosing a lodging Facility ...

(a) Please rank the following six factors in order of importance in choosing a lodging facility.

(1 = Most Important and 6 = Least Important)

Factor	Rating	Factor	Rating
Price		Convenience of Location	
Quality of Amenities		Chain Affiliation	
Facilities Offered		Other _____	

(b) Would the availability of a health club/fitness center be an important consideration in choosing a lodging facility? _____

14. Meeting and Banquet Facilities ...

Do you currently use meeting and/or banquet facilities at area hotels?

(Please circle whichever applies)

Meeting Facilities

Banquet Facilities

Neither

(If Meeting and/or Banquet Facilities are used, please complete the following chart)

	For Meetings	For Banquet
How frequently do you use these facilities?		
What is the average size of the group?		
What is the smallest size?		
What is the largest size?		
What percentage of attendees require overnight accommoda-		

tions?		
What percentage occurs on weekends?		

15. Location...

(a) Are you familiar with the location of our project? _____

(b) How would you rank the location of this hotel compared to the locations of the hotels you currently use? (Please circle)

Better

About the same

Inferior

16. Given a choice between a full-service hotel (i.e., Marriott, Holiday Inn, Hilton) and a limited-service hotel (i.e., Days, Red Roof Inn, Comfort Inn), which would you be more likely to choose in booking accommodations for overnight visitors? Why?

The key to a successful written survey is pinpointing the person who is best equipped to answer the required questions. All correspondence should be directed to that specific individual. "To whom it may concern" salutations seldom elicit a satisfactory response. Mailing lists from the local chamber of commerce are usually a good starting point. Using this information as a base, a quick telephone survey can be conducted to obtain the names of the most appropriate respondents.

A relatively long lead time is needed to develop, mail, receive, and evaluate written surveys. Appraisers should allow 30 to 40 days to use this data collection technique properly.

The main disadvantages of written surveys are the normally low response rate, the inability to follow up on a specific question, and a lack of data verification.

The response rate for a written survey depends on many factors, including the form of the survey, the perceived benefits to the respondent, and the ability to direct the survey to the proper individuals. A 10% response is considered good; occasionally a survey will yield a 30% to 35% return. When developing a survey, appraisers should take this low rate of response into account so that enough forms are mailed to ensure a sufficient data sample.

Written surveys do not give the questioner an opportunity to follow up an answer with another question that could elicit an important response. Therefore, it may be advisable to review the responses to the survey and conduct telephone interviews of respondents who appear to have additional data that may be helpful.

Written surveys are often difficult to verify. During face-to-face interviews, the interviewer can evaluate the character of the respondent and judge the accuracy of the data being provided. A person's intonation, body language, and general attitude convey a sense of whether the information being supplied is reliable. Users of written surveys cannot use this form of verification.

3. Demand for Transient Accommodations

In performing hotel-motel valuations and feasibility studies, appraisers are primarily interested in the micro, rather than the macro, aspects of demand. Micro demand for transient accommodations refers to the demand within a limited geographic area such as a town, city, or county. By quantifying the micro demand into measurable units such as room nights, half of the supply and demand equation is known. Macro demand is much broader in scope and takes into account national and international travel patterns. Although macro demand receives only limited attention in most appraisal reports, it is an important consideration; it often foreshadows changes in travel trends for micro areas.

Macro Demand

Four Categories of Data

Much of the macro data relating to travel in general and hotel demand in particular is compiled by government and industry organizations. This type of data can be divided into four categories based on how well it reflects trends in hotel-motel demand.

Category I consists of information pertaining to the actual use of commercial accommodations. These data relate to the number of travelers actually using hotels and motels throughout the United States—a direct measure of lodging demand. They provide the clearest indications of the current status of the hotel industry because the data require little extrapolation or interpretation. Examples of Category I data would include a survey of the number of travelers using hotel accommodations during their trips and quantification of the occupied hotel rooms within a specific macro market over a certain period of time.

Category 2 information pertains to travel that may entail the use of commercial accommodations. This type of data does not directly reflect demand for transient accommodations; rather, it provides a basis for drawing inferences

that could lead to supportable estimates. Examples of Category 2 data include information on amount of airline travel, attendance at recreational attractions, and the number of people traveling in general.

Category 3 data indicate the general condition of the national economy and describe the broad demographic trends that can have an indirect impact on the use of commercial accommodations. Like Category 2 data, this type of data does not directly reflect the demand for commercial accommodations; only indirect inferences can be drawn. Examples of Category 3 data include statistics on population growth and disposable income and various types of economic trend indicators.

Category 4 information details specific characteristics of transient travel demand (i.e., reasons for travel, types of accommodation selected, length of stay, and size of party). These data are used to evaluate the relative competitiveness of various types of hotels within a specific market.

The best type of data for quantifying hotel demand, evaluating historic trends, and formulating projections is Category I data. This type of data is generally available on a national basis from government-administered sources charged with the task of tracking travel data of all sorts. On a regional or micro level, most appraisers develop their own information on the specific market areas surrounding their subject properties and then augment their findings with competitive data provided by Smith Travel Research. The procedures for quantifying hotel demand will be discussed later in this book. Category 2 data are also readily available on a national basis, but they are sometimes difficult to obtain on the micro level.

Category 3 data covering most micro markets within the United States are available from many sources. Appraisers often use this type of data as a basis for forecasting future trends in hotel demand once a base level has been quantified through primary research techniques, which will be described in subsequent sections of this book. Category 4 data are available on a macro basis, but micro market data can rarely be obtained from public sources.

Most of the Category I and 2 data relating to macro hotel demand are compiled by the U.S. Travel Data Center, a department within the Travel Industry Association of America (TIA). This national, nonprofit center for travel research was established in 1973. Its primary purpose is to advance the common interests of the travel industry and the public by encouraging, sponsoring, and conducting statistical, economic and scientific research concerning travel, the travel industry, and travel-related industries. To meet this objective, the data center gathers, analyzes, publishes, and disseminates the results of its research and cooperates with government agencies, private industry, and academic institutions with similar goals. As a result, the center has become the premier source for national travel research. Membership in the TIA is highly recommended for any appraiser who actively evaluates travel-related properties. For more information, TIA's web site is www.tia.org.

Total Trips and Person Trips

The primary unit of travel demand used by the U.S. Travel Data Center is the "trip," where each trip unit represents the number of times a member or

members of a household travel to a place at least 100 miles from home, one way, and then return. A “person-trip” is a unit of measure that accounts for the number of persons on a trip. If three persons from a household go together on one trip, their travel is counted as one trip and three person-trips. Therefore, the average party size can be calculated by dividing the number of trips by the number of person-trips. This type of Category 2 data, for the period 1987 to 1998, is set forth in Table 3.1.

Between 1987 and 1997, the number of trips increased at an average annual compounded percentage rate of 2.4%, with this rate of growth accelerating slightly to 2.8% between 1990 and 1997. The strongest rate of expansion was recorded in 1992, when trips increased by 9.8%, while 1997 also saw an above-average rate of expansion equal to 4.8%. As for person-trips, this indicator increased at an average annual compounded percentage rate of 3.5% between 1987 and 1997, with acceleration in the rate of growth again noted between 1990 and 1997, when travel volume increased at an average compounded rate of 4.0% per year. Since mid 1992, the national economy has been expanding, driving stronger rates of growth for the decade than have

generally been recognized over the long-term. Most industry experts tend to consider an annual growth rate of 2% a reasonable benchmark for evaluating projected demand growth for a given market. Whenever an appraiser uses a higher demand growth rate, it must be recognized that such an estimate exceeds long-term national averages; thus, the applied growth rate should be justified by favorable local economic and demographic data.

Table 3.1 also illustrates the increasing trends in party size, where the average number of household members per trip has grown from 1.58 in 1987 to 1.75 in 1997. This dynamic resulted in a faster pace of growth among person-trips relative to trips. Whereas the rate of travel has increased since 1987, the size of the traveling parties has also expanded over this period.

Purpose of Trip

The U.S. Travel Data Center also reports the total travel demand broken down by the purpose of each trip. Table 3.2 shows trends in trip volume for

four separate categories of travel, including business, pleasure, vacation, and weekend trips. Total trip volume is also presented again for context. As a given trip may have more than one purpose, the total of the four categories of travel exceeds the actual number of total trips.

Between 1982 and 1997, the number of business trips increased at an average annual compounded percentage rate of 3.7%. Between 1990 and 1997, the rate of growth decelerated to 1.8% per year, while the year-to-year changes demonstrated some significant volatility. In the current decade, business travel volume receded in 1990, 1991, 1993, and 1994, and 1996. These declines were more than offset by strong gains in 1992, 1995, and 1997.

In contrast to the trends noted in business travel, pleasure travel volume accelerated in the current decade. Whereas the rate of growth between 1982 and 1997 equated to 2.8%, the growth rate between 1990 and 1997 equated to 3.0%. As with the number of business trips, the number of pleasure trips also surged in 1992. The number of pleasure trips declined in 1995, but was otherwise relatively consistent in its growth over the historical period.

Data for vacation trips was only available between 1987 and 1997. Over this period, the number of vacation trips increased at an average annual compounded percentage rate of 3.1%; the rate of growth decelerated slightly to 2.4% between 1990 and 1997. Weekend trips, where such data were only available only between 1990 and 1997, increased at an average annual compounded percentage rate of 4.3% over this period. The stronger rate of growth in weekend trips in recent years is tied to a national trend toward more frequent, but abbreviated, vacations. As opposed to extended vacations, Americans increasingly take advantage of the three-day weekends created by moving national holidays to Mondays. Destination resorts proximate to metropolitan centers have benefited from this dynamic, and commonly offer mini-vacations and weekend packages as a means of exploiting this characteristic of the market.

Overall, the historical trends indicate that gains in pleasure-related trips (including vacations and weekend trips) outpaced gains in business trips, although trends for each variety of travel have been positive.

Hotel Trips

Table 3.3 sets forth historical trip volume statistics for travelers using hotels and motels. It is important to note that this statistic pertains only to trips involving hotel and motel usage. Because the statistic does not account for the duration of the trip, the data does not necessarily correlate with hotel room nights occupied.

Between 1982 and 1997, the numbers of trips involving a hotel/motel stay increased at an average annual compounded percentage rate of 3.6%, with this rate of growth decelerating to 2.0% between 1990 and 1997. Offsetting declines in 1994, 1995, and 1997, hotel/motel trips surged in 1992 and 1996.

Again, the number of hotel/motel trips does not necessarily correlate with hotel room nights occupied. In 1997, the number of hotel/motel trips declined slightly, by 0.1%, although the number of occupied room nights actual-

ly increased in that year due to an increase in the duration of the average stay. Both the U.S. Travel Data Center, and Smith Travel Research (STR), the leading independent research firm serving the hotel industry, estimated the gain in 1997 occupied room nights at approximately 3.0%. More extensive data provided by STR will be detailed later in this text.

Additional characteristics associated with hotel/motel trips identified by the U.S. Travel Data Center, are as follows:

- 79% of travelers had one overnight destination; the remaining 21% had multiple destinations.
- 66% of trips involved travelers arriving by automobile, truck, or recreational vehicle (RV); 31% arrived by air.
- 54% of the trips involved only one household member; 28% of the trips involved two household members.
- Pleasure was identified as the main purpose of 54% of the trips; business was identified as the main purpose of 42% of the trips.
- 53% of the trips were described as a vacation.

- The average length of the hotel/motel stay was 3.4 nights.
- 51% of the trips involved overnight weekend travel.
- For 24% of the trips, a travel agent was consulted; 20% of the trips were booked with a travel agent.
- A car was rented for 22% of the trips.
- 19% of the trips included a child.
- The average round-trip distance was 1,159 miles.

Characteristics of Trips

The U.S. Travel Data Center also compiles Category 4 data on characteristics of trips. Table 3.4 shows the typical characteristics of different types of trips based on the purpose of the trip and the age of the traveler. Note that each of the categories is analyzed based on person-trips, as opposed to trips, with the exception of the hotel category.

In terms of the distance traveled, weekend and pleasure travelers tend to cover the shortest distances in the course of their trips. Business and vacation travelers generally cover longer distances, and such trips are more likely than other types of trips to require use of a hotel. In addition, older travelers are more likely to travel longer distances than younger travelers. The average round-trip distances ranged from a low of 802 miles among weekend travelers to a high of 1,159 miles among travelers using a hotel.

In terms of the mode of transportation, each category of traveler is most likely to arrive via an automobile, truck, recreational vehicle (RV), or rental car; however, weekend travelers, pleasure travelers, and travelers under the age of 18 are more likely than other travelers to use this mode of transport. Airplane travel is most common for business travelers, travelers requiring a hotel, and travelers between the age of 35 and 54.

Travelers over the age of 55 posted the longest average length of trip, with an average duration (excluding trips that require no overnight stay) of 5.1 nights. Vacationers posted similarly high average trip duration of 4.7 nights.

The lowest indication was posted by weekend travelers, who reported an average trip duration of 2.6 nights. Travelers using hotels and motels reported an average trip duration of 4.1 nights, equal to the average for all trips. As for the number of destinations per trip, travelers using hotels, vacationers, and travelers over the age of 55 were most likely to have multiple destinations.

Business travelers are the most likely of all types of travelers to require a hotel or motel in the course of their trips. Whereas 45% of all trips required hotels or motels in 1997, 64% of business trips required hotels or motels. Vacationers, weekend travelers, and travelers between the age of 35 and 54 also used hotels and motels more often than average in 1997. The average length of the hotel stay equated to 3.4 nights in 1997, with the duration of the stays exceeding this average for pleasure travelers, vacationers, and travelers over the age of 55.

As for the purpose of travel, 71% of all travelers reported that their trip was for pleasure, whereas 23% of all travelers reported a business purpose. In

contrast, of all those travelers who used hotel facilities on their trip, 54% had a pleasure-related purpose, while 42% had a business-related purpose. Otherwise, travelers aged 35 to 54 were more likely than other age groups to have a business-related purpose behind their trips.

Of all trips surveyed, 60% included a vacation component; categories for which this average was exceeded included pleasure travelers, vacationers, weekend travelers, and travelers under the age of 18, as well as travelers aged between 18 and 34. Overnight weekend travel was identified as a component of 52% of all trips, where an above average indication was noted in the following categories: pleasure, vacation, weekend, travelers under the age of 18, and travelers between the age of 18 and 34.

Every category surveyed identified the South Atlantic as the most common region of destination, with vacationers, travelers using hotels, and travelers aged 35 to 54 noting particularly high visitation to the South Atlantic. Business travelers reported the highest ratio of total travel to the Pacific region.

In terms of the number of household members on the trip, 53% of all trips involved a single member of the household, whereas the ratio for business travel was 71%. The average number of household members for all trips was 1.8, with business-related trips reporting an average of 1.5 household members per trip. In terms of age distribution, trips involving a traveler under the age of 18 reported an average of 3.5 household members, whereas trips involving a traveler aged 55 or higher reported an average of 1.7 household members. For 21% of all trips, a child was included in the travel plans, while 19% of trips involving hotel facilities included a child.

Travel Trends by Gender

The U.S. Travel Data Center also analyzed travel characteristics as differentiated by gender. Table 3.5 identifies the results of this survey.

Differences in travel trends among the genders have narrowed significantly in recent years. As of 1997, the categories in which the greatest disparity was realized were the share of person-trips with a business purpose and the share of person-trips with a vacation purpose. Less than 10 percentage points differentiated all other categories.

Month of Travel

Table 3.6 identifies month of travel statistics for 1996 and 1997. As indicated, travel is generally more concentrated in summer months, with July and August representing peak national travel times. Travel volume declines significantly in January and February, but is generally consistent throughout the remainder of the year.

Payroll Employment

Another way to gauge hotel-motel demand is to look at the number of people employed in the hotel-motel industry. Table 3.7 identifies the total number of people employed in the nation's hotels and other lodging facilities, between 1972 and 1998.

Between 1972 and 1998, employment levels in hotels and other lodging facilities increased at an average annual compounded percentage rate of 3.1%. The strongest rate of growth over this historical period was realized in the 1980s; during that decade, hotel employment increased at an average annual compounded percentage rate of 7.2%. Hotel supply increased dramatically through the 1980s, and recession in the early 1990s contributed to the significantly slower rate of hotel employment growth noted between 1990 and 1998. As indicated, hotel employment levels declined in 1991 and 1992. Since 1992, hotel employment growth has been relatively consistent at between 1.2% and 2.8% per year.

Modes of Transportation

Other useful Category 2 data come in the form of statistics relating to the usage of different modes of transportation. When evaluating trends in lodging industry demand, data on air and automobile travel are most relevant. Table 3.8 sets forth volume of U.S. air and automobile travel between 1982 and 1997.

Between 1982 and 1997, travel volume by air increased at an average annual compounded percentage rate of 3.8%, with this growth rate decelerating to 2.0% per year between 1990 and 1997. Growth trends for air travel have been highly volatile, particularly in the 1990s. Air travel volume surged by approximately 28% in 1992, then decelerated dramatically in 1994. Automobile travel volume has increased more consistently. Between 1982 and 1997, automobile travel increased at an average annual compounded percentage rate of 2.5%, accelerating to a 3.1% growth rate between 1990 and 1997.

The data in Table 3.8 were gathered by the U.S. Travel Data Center and based on travel surveys. Additional information on airline passenger traffic is published by the Air Transport Association and based on actual airline usage. Table 3.9 shows airline travel statistics, including revenue passengers enplaned (i.e., boarding an airplane) and the number of miles flown, between 1980 and 1998.

Between 1980 and 1998, the total number of passengers enplaned increased at an average annual compounded percentage rate of 4.1%, with this rate of growth decelerating slightly to 3.5% between 1990 and 1998. Over the historical period, the only years in which passenger volume decreased were 1981, 1989, and 1991.

Between 1980 and 1998, passenger miles increased at an average annual compounded percentage rate of 5.1%, with the rate of growth decelerating to 3.8% between 1990 and 1998. The rates of growth for passenger miles have historically exceeded the rates of growth for passenger volume, indicating that the average distance traveled has also increased. This dynamic repre-

sents a positive trend for the hotel industry, as longer trips are more likely to require a hotel stay.

An analysis of statistics on various modes of travel shows the relative importance of each. The automobile is by far the predominant means of transportation within the United States. It is also the primary means by which guests access lodging facilities. Air travel is second in importance, followed by bus and rail.

Table 3.10 summarizes the historical growth rates indicated in the preceding text, where such growth rates were indicated by the U.S. Travel Data Center findings. The rates of growth generally indicate stronger rates of expansion over the longer historical period, with decelerating growth indicated in the 1990s. These trends are chiefly a function of the early 1990s economic recession.

International Travel

Because travel is increasingly taking on a global perspective, pertinent statistics pertain to visitors to the United States from foreign countries. Table 3.11 identifies historical trends in visitation from Mexico, Canada, and other countries between 1980 and 1997.

Between 1980 and 1997, travel to the United States from Mexico increased at an average annual compounded percentage rate of 5.8%, decelerating to 3.2% between 1990 and 1997. Travel to the United States from Canada increased at an average annual compounded percentage rate of 1.7% between 1980 and 1997, but receded at an average annual rate of 1.9% between 1990 and 1997. Particularly significant declines were noted between 1993 and 1995, when the value of the Canadian dollar weakened relative to the American dollar. Among other countries, growth has remained strong and consistent historically, with an average annual percentage growth rate of 7.1%. Overall, arrivals to the United States from foreign countries increased at an average annual compounded percentage rate of 4.6% between 1990 and 1997, with the rate of growth decelerating to 2.8% between 1990 and 1997.

An alternate measure of travel to the United States from foreign countries is provided by the Department of Commerce, including both total visitors and total expenditures, between 1989 and 1998. The data are presented in Table 3.12.

Between 1989 and projected year-end 1998, international visitation to United States increased at an average annual compounded percentage rate of 2.7%, while total expenditures increased at a rate of 7.7% per year over the same period.

Foreign travel to the United States represents an extremely important source of national lodging demand because such travel usually requires the use of a hotel or motel. Historically, foreign travel to the United States has primarily benefited key gateway and resort cities such as Boston, Washington, D.C., Orlando, Miami, Houston, Los Angeles, San Francisco, and Honolulu. Note that trends in foreign travel are commonly tied to trends in the strength of the

American dollar. Periods in which the American dollar is weak tend to attract higher-than-usual levels of foreign travel, and often motivate domestic travelers to remain within the country rather than travel abroad. A strong American dollar has the inverse effect.

Statistics illustrating travel from the United States may also be pertinent in certain analyses. Table 3.13 sets forth historical trends in this variety of travel between 1985 and 1997.

American travel to Mexico increased at an average annual percentage rate of 4.4% between 1985 and 1997, decelerating to 1.1% between 1990 and 1997. A substantial decline was noted in 1996 as a result of political and financial instability in Mexico, although travel levels recovered in 1997, exceeding 1995 levels. Rates of growth in travel to Canada have remained relatively consistent historically, remaining in the range of 1.0% per year, while travel to other foreign countries has increased more significantly. Between 1985 and 1997, overseas travel increased at an average annual compounded percentage rate of 4.5%, slowing only slightly to 4.4% per year between 1990 and 1997.

Overall, travel to foreign countries increased at an average annual compounded percentage rate of 3.4% between 1985 and 1997, slowing to 2.4% between 1990 and 1997.

Macro Demand by Market Segment

The preceding discussion of the macro demand for lodging facilities focused on the overall market without regard to specific types of travelers. Since most hotels are oriented toward one or more market segments, however, the major components of the travel market must be identified. Most macro data are divided into three primary market segments: business travelers, meeting and group travelers, and pleasure or leisure travelers. Each segment has its own historic growth trends and demographic characteristics.

Business Travel

Often identified as “commercial” demand, business travel is the lifeblood of most lodging markets in the United States. Not only does the business travel segment represent the largest volume of room night demand, but on the whole it is the least price sensitive. A business-oriented hotel will generally achieve higher average room rates than a comparable facility catering to meeting and group travelers.

The demographics of the business traveler are of particular interest in evaluating the relative competitiveness of the various lodging facilities that attempt to attract this market segment. Earlier in this text, statistics provided by the U.S. Travel Data Center indicated that the number of business trips increased at an average annual compounded percentage rate of 3.7% between 1982 and 1997, slowing to 1.8% between 1990 and 1997. Note that business trips, as defined by the U.S. Travel Data Center, include trips for conventions and other business meetings. Otherwise, specific travel characteristics associated with business travel in 1997 were also set forth earlier in this text, although some of the pertinent statistics are summarized as follows.

- In 1997, the main purpose of 60% of the business trips was “general business,” while the main purpose of 9% of the business trips was a convention, seminar, or meeting.
- In 1997, 71% of the business trips involved only one household member.
- In 1997, 64% of business trips required use of a hotel or motel.
- The average length of a business trip in 1997 was 3.3 nights.
- In 1997, 36% of business trips included an overnight weekend stay. Overall, 30% of business trips were combined with a pleasure-related purpose.

Certain types of businesses tend to generate more hotel room night demand than others. Whereas non-profit organizations tend to have a limited impact on lodging demand, firms involved in wholesale trade tend to generate the largest amount of hotel demand. The finance, insurance, and real estate (FIRE) sector also tends to generate a strong share of business travel.

Meeting and Group Travel

Meeting and group demand is an important market segment for full-service hotels with meeting and banquet space. This segment is normally subdivided into three categories of meetings: corporate, convention, and association. Each has somewhat different characteristics and hotel requirements. Corporate meetings are generally organized by businesses and serve specific commercial needs. Conventions are normally large gatherings that can serve both business and social interests. Association meetings tend to be smaller than conventions and are commonly structured as business or educational functions.

The primary source of meeting and group travel data is the 1998 Meetings Market Report, conducted by *Meetings & Conventions* magazine, a Cahners Travel Group publication. The magazine has conducted the biennial survey of the meetings, conventions, and incentive industries since 1974. Plog Research, a marketing research company based in Reseda, California, provided research for the 1998 report. Table 3.14 sets forth the historical trends in meeting and group attendance, on a biennial basis, using data provided in the 1998 Meetings Market Report.

Between 1974 and 1997, total meeting and group attendance increased at an average annual compounded percentage rate of 3.0%, although attendance of this

sort decreased at a rate of 0.3% between 1991 and 1997. Between 1974 and 1997, association attendance increased at the strongest rate, growing at an average annual compounded percentage rate of 6.6%, although this variety of visitation also declined by a significant amount between 1991 and 1997, pacing the overall decline through the current decade. In contrast, convention visitation was essentially flat between 1974 and 1997, but increased at an average annual compounded percentage rate of 5.3% between 1991 and 1997. Of the three sources of meeting and group attendance, the corporate segment accounts for the largest total share. This segment posted an average annual compounded percentage growth rate of 3.2% between 1974 and 1997, but was basically flat between 1991 and 1997.

The 1998 Meetings Market Report also addresses the number of total meetings held by each segment of meeting and group demand. Table 3.15 identifies these statistics, on a biennial basis, between 1987 and 1997.

Between 1987 and 1997, the total number of meetings and conventions decreased at an average annual compounded percentage rate of 0.2%, with a moderate gain in association meetings offset by a decline in the number of corporate meetings and conventions. Between 1995 and 1997, gains in the number of conventions and association meetings were realized, with growth rates equal to 1.8% and 3.9%, respectively, while the number of corporate meetings decreased by 0.8%. The number of corporate meetings declined consistently since 1989, owing to corporate

downsizing and cuts in corporate travel budgets. Although the decline through 1991 was significant, the decreases in corporate meetings since that time have been comparatively minor.

Another important measure of meeting and group activity pertains to total expenditures on meetings. Table 3.16 sets forth these statistics on a biennial basis between 1987 and 1997.

Between 1987 and 1997, total meeting and group expenditures increased at an average annual compounded percentage rate of 3.8%, with strong gains noted in each of the three segments. Corporate meeting expenditures increased at the strongest rate, with a 4.3% growth rate, with growth in convention and association spending equal to 3.5% and 3.6%, respectively. Whereas the preceding trends in attendance and the number of meetings indicate a mix of positive and negative trends, the comparatively steady increase in spending across the three segments is a positive indicator.

Table 3.17 identifies the frequency with which the various types of facilities and meeting venues are used by the three varieties of meeting and group business.

For all three varieties of meeting and group demand, downtown hotels represented the most common venue. Sixty-one percent of those surveyed indicated that they had attended a corporate meeting in a downtown hotel, with 56% indicating that

they had attended a convention in a downtown hotel and 60% indicating that they had attended an association meeting in a downtown hotel. Suburban hotels were most commonly the sites of corporate and association meetings, and less popular venues for conventions. Resort hotels reflect a relatively balanced level of popularity among the three varieties of meeting and group demand.

Again, corporate meetings represent the largest of the three meeting and group segments. Table 3.18 describes this segment in greater detail.

Respondents to the survey indicated that training seminars represent the most common variety of corporate meeting (aside from "other"), followed by sales meetings and management meetings. New product introductions generally feature the largest attendance, with an average of 129, with group incentive trips featuring the second-largest average attendance at 102. Individual incentive trips reported the longest duration, with stays of 4.7 days, followed by group incentive trips at 4.4 days. The 1998 Meetings Market Report also indicated that the average length of lead time necessary to plan corporate meetings is six months.

Among the remaining meeting and group segments, association meetings tend to have attendance comparable to corporate meetings, in the range of 100 people, whereas conventions generally involve an average of 1,000 people. Lead planning

time for associations is generally comparable to that of corporate meetings, albeit slightly longer, whereas conventions are often planned years in advance.

The average size of meetings or conventions and the planning time required can be important considerations for a hotel appraiser. In valuing a hotel oriented toward the convention market, the appraiser should look at the amount and size of the meeting space in the facility to determine whether it is suited to meeting demand in the local area. For example, if the market is comprised mostly of corporate meetings, the meeting rooms should be relatively small and contain appropriate audiovisual and computer equipment. A convention market, on the other hand, requires facilities that can accommodate large groups and exhibit space.

The lead time for different types of meetings is particularly important for hotels under development. If major conventions are planned and hotels and meeting accommodations are selected three years in advance, any new hotel scheduled to open within this period should be pre-marketed so that convention planners will consider it. As the meeting capacity of a hotel increases, so must its marketing efforts prior to opening. A well-planned convention hotel will typically start its marketing program before construction begins.

Leisure Travel

Most of the sources for data on leisure travel were introduced earlier in this chapter. An additional reference is visitation counts compiled by the National Park Service. Table 3.19 shows these data for the period from 1980 to 1998, for all parks, as well as several of the most popular destinations.

Between 1980 and 1998, national park visitation increased at an average annual compounded percentage rate of 1.5%, with a comparable growth rate of 1.4% noted between 1990 and 1998. With the exception of Sequoia National Park, each of the separate parks identified in the table posted stronger rates of growth than that realized for all parks between 1980 and 1998. Between 1990 and 1998, visitation to Yellowstone National Park grew slightly below the national average, while visitation to Sequoia National Park receded.

Because each of the primary market segments displays specific characteristics that can affect the selection and use of a particular lodging facility, it is helpful to make a side-by-side comparison of the typical traveler characteristics for the commercial, meeting and group, and leisure segments of the market. Table 3.20 provides such a comparison.

Peak travel periods for commercial and leisure travelers are usually negatively correlated. Therefore, a hotel that is able to attract both of these segments is likely to have a smoother year-round occupancy pattern than a property that is largely

dependent on only one. The same analogy applies to weekly travel peaks for these two market segments.

The average length of stay affects many operational aspects of a hotel property. A hotel with a shorter average stay requires more front desk, luggage carriers, and accounting staff because more people will be checking in and out over the course of a week.

More cleaning staff may also be needed because maids can generally clean the room of a stay-over guest in less time than it takes to prepare a room for a new occupant. Operating costs increase with the number of checkouts.

An extended-stay property that attracts guests who stay longer than seven days solves the problem of the weekend occupancy drop-off, which occurs when commercial travelers go home for the weekend. In this situation, longer stays actually increase the potential stabilized occupancy. From a layout point of view, however, a hotel with a longer average length of stay such as a resort generally requires larger closets and more clothing storage areas to accommodate a greater amount of luggage.

Double occupancy refers to the average number of guests per room. Leisure demand, which includes many traveling families, has a double occupancy rate ranging from 1.7 to 2.5 people per room. Commercial demand, which is typically

composed of individual travelers, produces a double occupancy rate of 1.0 to 1.3 people per room. Many hotels are able to charge higher room rates for additional guests in a room, which tends to increase a property's overall average rate. In terms of design, a hotel with a high double occupancy rate requires more beds per room. A family-oriented resort should have at least two double beds in each room to accommodate its high double occupancy. On the other hand, a commercial-oriented property can offer a large number of rooms furnished with a single, king-sized bed. Properties with high double occupancies generally require larger closets, a second vanity sink, and larger rooms.

The use of food and beverage facilities is higher for meeting and group travelers than other market segments since many groups incorporate banquets and other forms of food service within their function schedule.

Macro Travel Price Data

Macro travel data pertaining to the price of hotel accommodations are also important to hotel appraisers. Since a hotel's rooms revenue is calculated by multiplying the number of occupied rooms (demand) by the price of each occupied room, trends in macro hotel room rates can be relevant in forecasting future changes.

Each year the Travel Industry of America compiles data pertaining to the Travel Price Index (TPI) for various components of the travel industry, such as transportation costs, airfares, lodging costs, and food and beverage costs. These indices are similar to the Consumer Price Index (CPI) in that they show the annual increases in prices caused by inflation and other factors. Table 3.21 shows the travel price indices for various travel components as well as the overall TPI.

Between 1988 and 1998, the total TPI increased at an average annual compounded percentage rate of 4.0%, with a significant share of this growth recorded between 1988 and 1991. In more recent years, the TPI has generally increased at levels below 4.0% per year. The most rapid rate of growth among the various TPI categories was lodging, which grew at an average annual compounded percentage rate of 5.2% between 1988 and 1998. Unlike the overall TPI, lodging has experienced strong increases in pricing in recent years, as the general health of the national lodging industry allowed for strong gains in hotel pricing relative to the overall TPI, and, as noted in the subsequent table (Table 3.22), the CPI. Airline fares are the only other TPI category where the pricing increases exceeded those realized for the overall TPI. Table 3.22 illustrates historical trends in the lodging TPI and the overall TPI in relation to the CPI for all urban consumers (CPI-U), between 1979 and 1998.

Gains in the lodging TPI have generally outpaced gains in both the overall TPI and the CPI-U historically. A comparable premium in the rate of gain in lodging prices

versus the overall TPI and the CPI-U is apparent for both periods of analysis, 1979 to 1998, and 1990 to 1998. Thus, whereas the average annual compounded percentage rate of lodging TPI gain decelerated to 5.5% between 1990 and 1998 (down from 6.9% between 1979 and 1998), the real gain relative to general inflation remained significant through the current decade.

The preceding trends indicate that gains in hotel room rates are not totally tied to changes in the CPI; they can also be market driven. For example, when hotel demand is strong and the market is under-supplied, occupancy levels will increase and room rates should show impressive gains. When hotel supply exceeds demand, occupancy levels will fall and hotel room rates will either level or start to decline. The trends indicated in Table 3.22 support these observations. National lodging markets became substantially overbuilt by the early 1990s, and as hotel operators sacrificed average rates in order to retain viable occupancy levels, the rate of gain in the lodging TPI slowed. Between 1993 and 1995, the rate of gain ranged from 2.8% to 3.9%. As the lodging industry's recovery progressed in more recent years, the environment for average rate recovery also improved.

Future Changes in Hotel-Motel Macro Demand

If the past in any way reflects the future, continuous changes in the transportation industry could have a significant effect on the characteristics of the average trip. The

supersonic transport may prove to be as revolutionary as the jet plane, allowing travelers to make international trips in a single day. Higher-priced gasoline could reduce the mobility of the average vacation traveler, while greater use of mass transportation and the possible rebirth of rail service might prompt travelers to bypass highway facilities altogether. More sophisticated telecommunication systems may someday make in-person business meetings and conferences obsolete.

Future macro travel projections should also reflect potentially positive factors. In the past decade companies have given their employees more fringe benefits, including longer vacations. Some firms have even implemented a four-day workweek. Although these trends do not necessarily mean increased travel, they do add to the time that families can be away from home.

A growing number of senior citizens with better retirement incomes and more desire to travel could also generate additional lodging demand. Increased foreign travel to the United States and a more travel-oriented society in general could mean more business for the lodging industry.

Micro Demand

In preparing a hotel market study and appraisal, accurate quantification of micro demand is essential. The unit of measurement commonly employed is the room night.

A room night is defined as one transient room occupied by one or more persons for one night. For example, a business traveler who stays at a motel for three nights accounts for three room nights. A family that uses one room for three nights also generates three room nights. If this family had occupied two guest rooms during their stay, the demand generated would have been six room nights.

The total number of room nights within a defined market area represents the total potential demand, which can be measured on a daily, weekly, monthly, or yearly basis, depending on local travel patterns.

The total demand for transient accommodations within a micro market is generally quantified using the build-up approach based on an analysis of lodging activity; secondary support is provided by the build-up approach based on an analysis of demand generators.

To apply the build-up approach based on an analysis of lodging activity, an area's transient room night demand is estimated by totaling the rooms actually occupied in local hotels and motels. Through interviews with hostelry operators, owners, and other knowledgeable individuals, occupancy levels for individual lodging operations and area occupancy trends can be established. The percentage of occupancy for each property times the available number of rooms is multiplied by 365 days to produce the total number of room nights actually occupied each year. The area's

total room night lodging demand can be quantified by combining the estimated number of occupied hotel rooms for each property and adding a factor for latent demand.

The build-up approach based on an analysis of demand generators involves interviews and statistical sampling market research. Lodging demand is estimated by totaling the room nights generated from sources of transient visitation. Drawing from a sample of major transient generators located within a defined market area, interviews and surveys are conducted to determine the amount of demand each source attracts during a specified period of time, such as a week or a month. When these data are combined with other survey information such as facility preferences, price sensitivity, the nature of the demand and travel patterns, the analysis of demand generators provides both support and amplification for the findings derived from the analysis of lodging activity.

Appraisers use a combination of the two procedures to save time and unnecessary research effort. In practice, an overall area demand is first established by analyzing lodging activity. Then selective interviews are conducted at one or more major generators of visitation to verify the transient demand and establish traveler characteristics. By defining not only the quantity of transient demand but also its lodging characteristics, the analyst has enough data to develop a micro demand

projection. Because each market area is unique, the analytic approach often must be adjusted to account for particular demand characteristics.

Build-Up Approach Based on an Analysis of Lodging Activity

The build-up approach based on an analysis of lodging activity is generally performed in seven steps.

1. Define the primary market area.
2. Define the area's primary market segments.
3. Identify all primary and secondary competitive lodging facilities in the market area and determine their individual room counts and competitive weighting factors.
4. Estimate the percentage of occupancy for each competitive hotel or motel on an annual basis and determine the percentage relationship between each market segment and the whole market.
5. Quantify the accommodated room night demand by multiplying each property's room count by its annual occupancy and then by the 365 days in a year. Each property's total accommo-

dated room night demand is then allocated among the primary market segments (i.e., commercial, meeting and group, and leisure) within the market area.

6. Estimate latent demand, which includes both unaccommodated and induced demand.
7. Quantify the area's total room night demand.

After each of these steps is discussed, it will be demonstrated using a single case study example. The case study introduced in this chapter is developed and referenced throughout the book.

Define Primary Market Area

The first step in analyzing lodging activity is to define the subject's market area. The market area for a lodging facility is the geographical region where the sources of transient visitation (demand) and the competitive supply are

located, To delineate the boundaries of a market area, four factors must be considered:

1. Travel time between the source of visitation and the subject property
2. Methods of travel commonly used
3. Sources of transient visitation
4. Location of competitive lodging facilities

Travel time is generally a better measure of distance than miles because highways, road conditions, and travel patterns differ. Most people are willing to travel up to 20 minutes to get from a source of visitation to their lodging accommodations. If most of visitors' travel time is spent on high-speed, interstate highways, the market area will be larger than if the route to the subject facility is along busy downtown streets.

The 20-minute market area radius is a rule of thumb that is generally appropriate for suburban areas. In rural regions the travel time radius can be signif-

icantly increased- sometimes to as much as one to four hours. Central business districts usually have a much shorter travel time radius of five to 10 minutes.

The means of transportation used also affects travel time. For example, a convenient rapid transit system can increase the market area by shortening the length of time needed to reach the subject property. Airport properties that depend on shuttle bus service should consider visitors' waiting time. These hostelries should be located no more than 10 minutes from the airport to allow for a 20-minute round trip.

The analyst should locate the subject property on a detailed road map and indicate points that could be reached within 20 minutes travel time. Connecting these points creates an irregular circle, which represents the boundaries of the initial market area. To determine the actual shape of the final market area, certain adjustments must be made to show the influence of competition and other demand characteristics.

Before any modifications are made, however, all potential sources of transient visitation within the initial market area should be identified and located on the map. Any attraction that draws out-of-town travelers who require commercial lodging facilities is a source of transient visitation. A representative list of visitation sources and the methods used to quantify their micro demand are presented later in this section.

After the initial market area has been determined, all competitive hostelries should be located on the map and their positions with respect to the subject property and sources of visitation should be noted. Travelers tend to stay at the lodging facility closest to their destination, assuming the property meets certain requirements. If a comparable hotel is located between a source of demand and the property being appraised, the competitive facility may attract patrons first, and the subject hostelry will receive the overflow. Care must be taken to evaluate the drawing power of the competition because travelers will generally bypass one facility for another if it better suits their needs and budget. The location of competitive properties between the prop-

erty being appraised and the attraction generating business can decrease the size of the initial market area and may even eliminate some sources of visitation from consideration.

In evaluating competition, local travel patterns and popular routes are important factors. Travelers usually prefer to travel along familiar routes and are not inclined to venture into unfamiliar areas. If the customary route to a source of demand happens to bypass the subject property, its potential for capturing that market is greatly reduced. The location of one or more comparable lodging facilities along the route also decreases the drawing power of the subject property. Traffic counts and origination and destination studies prepared by state and local agencies can help pinpoint popular routes and identify area travel patterns. By plotting this information on the map showing the initial market area, appropriate adjustments can be made to the boundaries indicated. The resulting enclosure is the final market area and contains the sources of transient visitation available to the subject property.

This first step in the build-up approach for quantifying demand based on an analysis of lodging activity is demonstrated on the following pages.

CASE STUDY

The case study that follows is presented to illustrate the market analysis and valuation procedures described in this text. The example will be developed further in later chapters demonstrating the collection and development of data that lead to a final opinion of value. The case study will involve two scenarios, one involving an existing 200-room Embassy Suites, and a second involving a proposed 250-room Sheraton Hotel. The proposed hotel is assumed to enter the same lodging market in which the existing Embassy Suites operates. The location is real, and although the data is realistic, it has been fabricated. In addition, the techniques employed to quantify demand and project income and expenses for this property are applicable to all types of lodging facilities.

Because every appraisal assignment is unique, the techniques used to collect and process data into an estimate of value must be tailored to meet the par-

ticular situation. Few assignments require the type of detailed analysis set forth in this case study. Many factors influence the applicability of the various approaches, including the availability of data, the nature of the market, the characteristics of the subject property, and time and economic considerations. An experienced hotel consultant can generally arrive at a credible estimate of value using a more abbreviated set of procedures.

Background

The subject lodging market consists of various hotels and motels located throughout suburban Long Island. The existing Embassy Suites and the site of the proposed Sheraton are both located in the same general area formed by the intersection of Interstate 495 and Route 110. The numerous benefits associated with this location have allowed the Embassy Suites to generate strong occupancy levels historically. Because of the high level of traffic, it affords especially good exposure. Interstate 495 is a heavily traveled, east-west artery connecting various suburban communities with a nearby urban center, and Route 110 is a four-lane, north-south feeder road that provides access to several large industrial and office parks.

The surrounding neighborhood has experienced strong growth over the past ten years as the nearby urban center has extended its area of influence. What was once farmland now supports residential developments, regional shopping malls, office complexes, and industrial districts. Several large aerospace and communications manufacturers have established plants in the area; these manufacturers provide work for many smaller subcontracting production firms. These high technology businesses support an affluent population with large disposable incomes, attractive homes, and a leisure-oriented lifestyle.

Although the aerospace industry tends to be highly cyclical, most of the larger plants have long-term government contracts. County planners expect moderate growth to continue. More than 40% of the land remains undeveloped and the area has been attracting many firms from the nearby urban center.

The Embassy Suites site measures approximately five acres and is located in the northwest quadrant of the intersection formed by Interstate 495 and

Route 110. The hotel was developed consistent with the chain's construction standards, and features 200 suites oriented around a central high-rise atrium. Each guest suite features distinct living room and bedroom areas, separated by a wet bar and bathroom. The hotel also features a 100-seat restaurant and lounge, and approximately 5,000 square feet of meeting space. It is operated by Hotel Equity Investors under a franchise agreement.

As a result of the recent wave of economic growth, new first-class, full-service hotel development has potentially become cost-justified. A developer is considering developing a 250-room Sheraton Hotel on a seven-acre site located in the southeast quadrant of the intersection formed by Interstate 495 and Route 110. In addition to its 250 guest rooms, the hotel will have a 180-seat restaurant, a 50-seat lounge, a 40-seat lobby bar, and approximately 15,000 square feet of meeting space. The decor and construction specifications indicate a top-quality property capable of attracting first-class patrons. For purposes of this analysis, the Sheraton Hotel is assumed to open as of the first day of the third projection year.

Define Primary Market Area

On a detailed highway map, the sites of the existing Embassy Suites and the proposed Sheraton Hotel are identified. Based on the sites' suburban locations, a 20-minute drive time is considered appropriate. A route is traced along each major highway starting at this intersection and ending at a point 20 driving minutes away based on average highway speeds and road conditions. The accompanying map illustrates the two, long radiating routes on Interstate 495 and Route 110. Secondary roads intersecting these two highways are also measured for travel time. The end points of all possible routes on the map are then joined by a continuous line; the resulting market area resembles a circle that has been pushed in on four sides. (The numbers on the map indicate demand generators, discussed in greater detail later in this text.)

Most of the visitors to the market area arrive by automobile. Although limousine and taxi service from the nearby airport is available, rental cars are the preferred means of transportation.

Define Market Segments

Once the market area has been outlined, the appraiser should determine the primary segments of transient demand now using local hotels. The three market segments found in most areas are commercial, meeting and group, and leisure. Other market segments that are sometimes considered include extended-stay, government, airline crews, sports teams, military, truck drivers, and cruise ships.

Market segmentation is a useful procedure because individual market segments generally exhibit unique characteristics relating to future growth potential, seasonal aspects of demand, average length of stay, rates of double occupancy, facility requirements, price sensitivity, and other factors. Once the room night demand has been quantified by market segment and the individual characteristics of each segment have been defined, the future demand for transient accommodations can be more accurately forecast by making separate projections for each market segment.

Some unique characteristics of the major market segments are described below.

Commercial Segment

The commercial market segment is composed of individual business people visiting the various firms within a market area. Commercial demand is strongest Monday through Thursday nights, declining significantly on Friday and Saturday and increasing somewhat on Sunday. The typical length of stay ranges from one to three days and the rate of double occupancy is low at 1.2 to 1.3 persons per room. Commercial demand is relatively constant throughout the year, with some drop-off in late December and during other holiday periods. Individual business travelers are not overly price-sensitive and generally use a hotel's food, beverage, and recreational facilities. Commercial travelers usually represent a highly desirable and lucrative market segment

for hotels because they provide a consistent demand at room rates approaching the upper limit for the area.

Meeting and Group Segment

The meeting and group market includes individuals attending meetings, seminars, trade association shows, and similar gatherings for ten or more people. Peak convention demand typically occurs in the spring and fall. Because of vacations, the summer months are the slowest period for this market segment; winter demand can be variable. The average length of stay for typical meeting and group travelers ranges from three to five days. Most commercial groups hold their meetings Monday through Thursday, but associations and social groups sometimes use the weekends. Commercial groups tend to have a low double occupancy of 1.3 to 1.5 persons per room, while social groups are likely to have somewhat higher double occupancy rates ranging from 1.5 to 1.9. Meeting and group patronage is generally quite profitable for hotels and motels. Although room rates are sometimes discounted

for large groups, the hotel benefits from the use of meeting space and the inclusion of in-house banquets and cocktail receptions.

Leisure Segment

The leisure segment consists of individuals and families spending time in the area or passing through en route to other destinations. Their purposes for travel may include sightseeing, recreation, relaxation, visiting friends and relatives, or other non-business activities. Leisure demand is strongest Friday through Saturday nights and all week during holiday periods and summer months. These peak periods of demand are negatively correlated with commercial visitation patterns, demonstrating the stabilizing effect on occupancy produced by capturing weekend and summer tourist travel. The typical length of stay for the leisure traveler ranges from one to four days, depending on the destination and the purpose of travel. The rate of double occupancy is generally high-1.8 to 2.5 people per room. Leisure travelers tend to be the most price-sensitive segment in the lodging market. Many prefer low-rise accommodations with parking convenient to the rooms; vacationers typically

demand extensive recreational facilities and amenities. Ease of highway access and proximity to vacation-related attractions are important location-related considerations.

CASE STUDY

Define Market Segments

The primary market segments observed during fieldwork in the subject's market area were commercial, meeting and group, and leisure. In addition to these primary segments, a number of secondary segments such as airline crews, bus tours, and military personnel were noted. Because the impact of these secondary segments on total demand is considered minimal, they were merged into the appropriate primary segments in allocating room night demand.

Identify Primary and Secondary Competition, Room Counts, and Competitive Weighting Factors

The primary and secondary competitive lodging facilities located within a market area are part of the over-all lodging supply, which can be defined as all transient accommodations catering to overnight visitors. Transient accommodations include hotels, motels, conference centers, bed and breakfast inns, rooming houses, health spas, and other facilities. Although all transient lodging facilities operating in the same market area compete with one another to some extent, only those that are considered primary or secondary competition are generally included in the lodging analysis.

Primary competitive lodging facilities are hotels that are similar to the subject property with respect to the class and type of facilities offered and attempt to capture the same type of transient visitor. Secondary competition consists of lodging facilities that would not normally attract the same type of transient visitor, but become competitive because of special circumstances.

Determining which hotels represent primary or secondary competition and which provide no competition at all is largely subjective. Relative competitiveness can be evaluated by looking at area demand and identifying the different types of accommodations that transient visitors are actually selecting. Alternatively, competitive supply can be examined to identify accommodations that are similar to the subject in their market orientation (i.e., facilities, class, image, location, and other characteristics).

Demand generator interviews can provide information on the types of accommodations market area travelers are currently utilizing. The responses to interview questions should allow the appraiser to pinpoint which lodging facilities are competitive with each other and why.

To evaluate the similarities of facilities and the market orientation of the hotels that comprise the lodging supply, an appraiser may visit each property and judge its competitiveness using specific criteria. The following questions

could be used to judge whether a lodging facility represents primary or secondary competition or does not compete with the subject property at all.

- Does the hotel occupy a similar location? Is it within 20 travel minutes of the demand generators? Is it identified with a specialized location such as an airport, convention center, downtown area, or resort?
- Is the hotel similar in terms of the types of facilities offered? Specialized types of hotels include: convention, resort, suite, residence, conference center, casino, and health spa.
- Does the hotel offer similar amenities? Amenities may include restaurants, lounges, meeting rooms, a pool (indoor or outdoor), a health spa, tennis courts, and golf facilities.

- Is the hotel similar in class -- i.e., quality and price? Classes of lodging facilities include luxury, first-class, standard/mid-rate, economy/budget, and hard budget.
- Is the hotel similar in image? Image refers to the hotel's brand name, local reputation, management expertise, and unique characteristics.

Area hotels can be considered primary competition if they are similar to the subject property with respect to many of these criteria, particularly those related to types of facilities, class and image. Secondary competition would include hotels that are similar in location-related characteristics, but meet few of the other criteria, particularly class and image. Secondary properties are considered competitive because they sometimes attract the same market or travelers as the subject property and other primary competitors.

When all primarily competitive hotels are sold out, travelers desiring these accommodations must settle for one of the secondarily competitive properties. If, for example, a traveler wanted an upscale, first-class hotel, a budget property would be the secondary alternative. A budget traveler who found all the economy properties filled might have to patronize a first-class facility.

A secondary competitor is sometimes in demand because it has a particularly good location. A secondary property adjacent to a demand generator may do good business in inclement weather when people want to stay at the first hotel they encounter.

Generally a secondary hotel is not as competitive as primary properties. To reflect this lesser degree of competitiveness, an appraiser will generally assign a weighting factor to a secondary property, which effectively reduces the hotel's room count. For example, a 100-room, secondary hotel that is considered to be 25% competitive with the subject property is assumed to have an effective room count of only 25 rooms. This assumption not only reduces the existing supply of competitive hotel rooms, but it also lowers the area's cur-

rent room night demand. If the appraiser determines that more than one hotel can be considered secondarily competitive, then all of the secondary properties are typically combined into a single hotel using a weighted-average calculation in the market analysis. These combining calculations and the overall impact of secondary hotels will be illustrated in the case study example.

Usually a few hotels in the market area offer no competition to the subject property and are therefore not considered in the analysis of lodging activity. These properties are generally so dissimilar to the subject property that any crossover of demand would be highly unlikely. Most travelers would probably defer their trip if they were unable to obtain accommodations in either the primary or secondary competitive properties.

To quantify hotel room night demand using the build-up approach based on lodging activity, it is necessary to determine the room counts of all competitive hotels. This information is usually available directly from the properties or from various lodging directories. The room counts of any hotels that

opened during the 12-month base year must be adjusted based on estimates of occupancy and market segmentation. For example, the 124-room Courtyard by Marriott identified subsequently in the case study opened in early July of the base year period, which extended from January 1 to December 31. Since the Courtyard only operated for six months of the base year period, its historic average room count (HARC) is 62 rooms ($50\% \times 124 = 62$).

The historic average room count is the hotel's room count multiplied by the percentage of the base year that the property is actually open. In addition to weighting the impact of new hotels on the market, the HARC can also be used to adjust the room counts of seasonal properties that close for a portion of the year and existing hotels that add new rooms during the base year.

CASE STUDY

Identify Primary and Secondary Competition, Room Counts, and Competitive Weighting Factors

A survey of the subject market area revealed a total of 20 hotels containing 2,762 rooms. Of these 20 hotels, nine (including the Embassy Suites) were judged to represent primary competition (1,604 rooms) and six were considered secondarily competitive (743 rooms). Five hotels do not compete in the subject lodging market at all. The general criteria applied to identify primary and secondary competition are outlined below.

- Location. Competitive hotels are either within or close to the previously defined market area.
- Facilities. All hotels must offer individual guestrooms on a transient basis.
- Amenities. To be considered primary competition, a hotel must offer a full range of amenities including a restaurant, a lounge, meeting rooms, and a swimming pool. Secondarily competitive hotels must provide televisions, direct dial telephones, full baths, air-conditioning, 24-hour attended front desks, and daily maid service.
- Class, quality, and price. Primary competition includes first-class, full-service hotels. Secondary competition includes mid-rate, full-service hotels, a limited-service hotel, an extended-stay hotel; and a

Five-Star luxury hotel. All competitive hotels must offer clean, comfortable, and safe accommodations.

- Image. A hotel needs a national affiliation or a strong local reputation to be included as primary competition. Hotels with poor reputations are not included in the primary or secondary competition.

Primary Competition

The hotels considered primarily competitive with the subject property are shown in Table C.S.3.1. The room counts were obtained from lodging directories.

Secondary Competition

The hotels listed below are considered secondarily competitive within the subject competitive market. These hotels are identified as secondary competition rather than primary competition because of differences in location, product quality, and/or market orientation.

- Red Roof Inn
- Super 8
- Microtel
- Residence Inn
- Delta Inn
- Four Seasons

These six secondarily competitive hotels were evaluated to determine their degree of competitiveness within the competitive market. Based on the competitive criteria outlined above, competitive weighting factors were assigned to each secondary hotel (see Table C.S.3.2). When used in a supply and demand analysis, a competitive weighting factor effectively reduces a hotel's room count.

Five hotels in the market area are not considered either primary or secondary competition because they have poor local reputations, do not offer the required amenities, and have no national affiliation.

Estimate Occupancy and Determine Market Segmentation

The key ingredient in the build-up approach based on an analysis of lodging activity is the occupancy estimate for each of the primary and secondary competitive hotels in the market area. The estimate of competitive occupancies should cover a full, 12-month period. Ideally this period, which is called the base year, will closely precede the first year projected in the supply and demand analysis.

When collecting occupancy and average room rate data, the appraiser should be aware of several factors that could skew the data and produce errors in the analysis. For example, occupancy is calculated as the number of rooms occupied over a period of time divided by the number of rooms available. The appraiser should first understand how the hotel defines "rooms". Generally, a room is synonymous with the term hotel unit, which is the smallest accommodation that can be rented to a guest. Each unit must have a full bath and its own entrance to a public hallway or to the exterior. Some hotel units are composed of two rooms, but since such a unit may have only one entrance or

one bath, it would be impossible to rent it to two unrelated parties. If, on the other hand each room has its own bath and entrance and the connection between the two rooms can be locked, then each room could be considered a separate unit.

The second factor to be examined in gathering occupancy data is how the hotel handles complimentary rooms. Most hotels have a small percentage of rooms that are provided on a complimentary basis to hotel guests. Since these rooms do not generate rooms revenue, they are sometimes omitted from the hotel's occupancy calculation. However, these complimentary rooms do represent a form of hotel utilization and should be included in the calculations when the lodging activity approach is used to quantify hotel room night demand. The appraiser should therefore always ask for the percentage of occupancy that includes complimentary rooms. The inclusion of complimentary rooms also affects the calculation of average room rate, which will be discussed later.

The need to divide the market's overall room night demand into individual market segments has already been discussed. In applying the lodging activity approach, market segmentation is determined by interviewing competitive management about the percentage relationship of each market segment to the whole market. This information is usually not considered confidential and should be easily obtained from each of the hotels. The appraiser must define the market segments in detail before asking about percentage relationships so the interviewee will understand and employ the same basis in allocating the hotel's occupied rooms. The percentages should add up to 100% when all segments are considered.

CASE STUDY

Estimate Occupancy and Determine Market Segmentation

Occupancy, market segmentation, and historic average room counts have been calculated based on field interviews and in-house data. The current level of occupancy is estimated for each of the competitive hotels in the mar-

ket. Because the fieldwork for the appraisal was performed in the first quarter of the year following the base year, the estimates of occupancy and market segmentation apply to the calendar base year. In addition to estimated occupancy levels, market segmentation percentages have been established for all the competitive hotels based on the relationship of each market segment to the whole. As described previously, this appraisal recognizes three market segments: commercial, meeting and group, and leisure. To account for hotels that open during the base year, the historic average room count (HARC) is used instead of the actual room count.

To reduce the number of calculations required, the hotels comprising the *secondary competition* are combined into a single aggregate hotel by applying weighted averages. The aggregate hotel is called the “Secondary Competition.” Table C.S.3.3 sets forth the necessary calculations.

The weighted average is calculated by multiplying the effective room count of each hotel by the appropriate occupancy or market segmentation percentage. The sum of these products is then divided by the total effective room

count (420). Table C.S. 3.4 shows the weighted-average calculation for occupancy.

Table. C.S.3.5 shows the operating characteristics of each of the nine primary hotel competitors and the aggregate secondary competition. A similar weighted-average computation is made to determine the market-wide occupancy and market segmentation percentages.

Quantify Accommodated Room Night Demand

The current accommodated room night demand for each market segment is calculated separately for each competitive hotel using the following equation:

$$\text{Historic average room count} \times \text{occupancy} \times \text{market segmentation} \times 365$$
$$= \text{Total accommodated room night demand}$$

The number of occupied rooms per market segment for all the competitive hotels in the market area is then combined to yield the area's current accommodated room night demand. The accommodated room night demand represents the actual number of competitive rooms occupied during the base year.

CASE STUDY

Quantify Accommodated Room Night Demand

Table C.S.3.6 shows the estimated accommodated room night demand divided by market segment.

Fair Share, Market Share, and Penetration Factors

Each competitive hotel's historical performance may be judged by comparing the respective occupancy rates. A statistical measure of each hotel's performance is the penetration factor, which relates a specific hotel's performance (both overall and by segment) to that of the market at large. The penetration factor calculation is based on each hotel's fair share, which simply equates to a given property's room count divided by the market-wide room count. The fair share percentage functions as the denominator in all penetration factor calculations, whereas market share is the numerator. Market share represents that portion of demand actually accommodated by a particular property (either overall or by segment), divided by market-wide demand. Market share divided by fair share results in a penetration factor.

CASE STUDY

Fair Share, Market Share, and Penetration Factors

Table C.S.3.7 shows the basis for the calculation of each competitive property's fair share factor. The fair share factor is calculated by dividing the HARC of each particular property by the market-wide HARC.

Table C.S.3.8 identifies the basis for the calculation of each competitive property's penetration factor. The penetration factors are calculated for each segment, as well as "overall."

Demonstrating the methodology, consider the 148.0% penetration factor achieved by the Embassy Suites in the commercial segment. In the base year, the Embassy Suites accommodated 45,552 room nights of commercial segment demand. Dividing this figure by the market-wide commercial demand of 302,298 generates a market share factor of 15.1%. Dividing this market share factor (15.1%) by the Embassy Suites' fair share (10.2% -- calculated by dividing 200 by 1,962) results in the penetration factor (148.0%). In other words, the Embassy Suites accommodated 148% of its fair share of commercial demand in the base year, demonstrating its great success and appeal in this particular market segment. Overall, the Embassy Suites accommodated 108.1% of its fair share of market demand, matching the level of market pen-

etration recorded in the base year by the Quality Inn. These two hotels led the competitive market. The Days Hotel, the Holiday Inn, and the aggregate of secondary competitors also accommodated more than their fair share of market demand in the base year. The remaining competitors attracted less than their fair share of market demand. Also of note, the Embassy Suites led the market in commercial segment penetration, while the Hilton was particularly strong in the meeting and group segment, and the Quality Inn led the market in the leisure segment.

Estimate Latent Demand

The area's current accommodated room night demand is based on actual occupancies and accounts for only those hotel rooms that have been used by guests. It does not consider other types of demand that may have been present in the market but, for one reason or another, have not been accommodated by the current supply of lodging facilities. This additional demand is

called latent demand and is composed of both unaccommodated demand and induced demand.

Unaccommodated Demand

Unaccommodated demand represents transient travelers who seek accommodations within a market area but, because all the local lodging facilities happen to be filled, must defer their trips, settle for less desirable accommodations, or stay outside the market area.

Since this type of demand is not actually accommodated by the area's lodging facilities, it is not included in the room nights quantified in the previous steps of the lodging activity approach.

Unaccommodated demand is actually a form of excess demand that develops because of the cyclical nature of the hotel business. For example, in markets where commercial demand predominates, area occupancy levels Monday

through Thursday often approach 100%, which indicates that many travelers are not being accommodated locally. Many resort market areas also sell out during peak vacation periods, thereby generating unaccommodated room night demand. Because hotels cannot expand or contract in response to cyclical lodging demand, unaccommodated transient visitation is a normal occurrence in many market areas.

In quantifying the current hotel room night demand, unaccommodated demand only becomes a factor when the number of competitive rooms in the market is expanding. As the supply of hotel rooms increases, more of the previously unaccommodated demand will be accommodated during periods of peak visitation. Since these uncounted room nights will help cushion the dilution effect of adding more rooms to a market, it is important to quantify the number of unaccommodated travelers attempting to use lodging facilities in the area.

Quantifying the room nights that are not currently being accommodated in a market is a difficult task requiring both judgment and experience. The fol-

Following list outlines some factors that should be considered in deriving this type of estimate.

- The nature of the demand. Does the area demand tend to be cyclical and concentrated at certain points in time (e.g., Monday through Thursday, vacation periods, special local events)?
- Area occupancy. Considering the nature of the area's transient demand, are most of the local lodging facilities operating at appropriate stabilized levels of occupancy? For example, in a typical, commercially oriented market where lodging demand is high Monday through Thursday and drops considerably over the weekends, one might expect that a strong stabilized level of occupancy would be approximately 70%. Under these circumstances an area-wide occupancy of 78% could produce a significant amount of unaccommodated demand. If most of the area's hotels were operating at 60% occupancy, however, the amount of the unaccommodated demand would probably be negligible.

- **Fill nights.** How many fill nights are area hotels experiencing?
In conducting competitive interviews the appraiser should try to determine the number of nights area hotels are actually filled to capacity. Once this number has been established, the number of turn-away room nights can be quantified. Sometimes hotels with centralized reservation systems maintain monthly denial reports, which show the number of people who called to make reservations at a specific hotel, but were denied because the property was fully booked. Occasionally individual hotels also track the number of walk-ins (i.e., people who arrive without reservations) turned away on days the hotel is fully booked.
- **Alternative accommodations.** If it appears that a sizable amount of unaccommodated demand exists in an area, the appraiser might want to conduct interviews at alternative accommodations to identify the sources of their demand and to determine whether a portion of these customers would choose other facilities if they were available. Alternative accommoda-

tions might include lodging facilities outside the market area or hotels within the area that are considered less desirable.

In most instances data on fill nights and turn-away frequency are not available. Appraisers should try to obtain as much information as possible, but they must be prepared to estimate unaccommodated room night demand without a strong factual basis. The appraiser's experience plays an important role in quantifying unaccommodated demand. By observing numerous market areas that have over the years experienced cycles of building, declining occupancies, and recovery, appraisers can develop a feel for an appropriate estimate of unaccommodated demand.

Unaccommodated demand is generally estimated as a percentage of the accommodated demand for each individual market segment. The range for unaccommodated demand typically extends from 0% to 30% of accommodated demand. The upper end of this range would be appropriate for exceptionally strong markets where nearly every hotel is experiencing high levels of occupancy, many fill nights, and a large amount of turn-away demand. In good

hotel markets 5% to 10% is a reasonable level of unaccommodated demand. Since unaccommodated demand is difficult to quantify, a conservative estimate is usually warranted.

Unaccommodated demand is generally brought into the market analysis as accommodated demand at the point in time when there are sufficient new rooms available to absorb this form of latent demand. Care must be taken to ensure that the amount of unaccommodated demand converted into accommodated demand is justified by the number of new rooms opening in the market. The capacity (new rooms) available to convert unaccommodated demand into accommodated demand is called the *accommodatable latent demand*. This form of demand will be covered later.

Induced Demand

The second type of latent demand is called induced demand. Induced demand represents the additional room nights that will be attracted to the mar-

ket area for one or more specific reasons. Induced demand may be created by specific circumstances such as

- The opening of new hotels that offer new amenities such as extensive meeting and group space or specialized recreational amenities such as a golf course, ski slope, or health spa. These hotels are expected to attract a new market segment that does not currently seek accommodations in the subject's market area. For example, if a new hotel with a 60,000-sq. ft. exhibit hall opens in a market where no similar facility exists, this hotel will probably be able to attract into the area groups that had previously selected hotels elsewhere.
- The aggressive marketing efforts of individual properties. Some major hotel chains have been able to bring new room nights into the market by aggressively marketing the properties they operate. Convention-oriented lodging chains frequently are able to rotate convention groups around to various

hotels within their system, thereby creating induced demand for any new hotels they operate.

- The opening of a new major demand generator such as a convention center, commercial enterprise, retail complex, transportation facility, or recreational attraction. The development of Disney World is an example of an induced demand generator. Airport expansions commonly induce new demand, particularly if the facility develops as a major hub for many airlines.

Induced demand can generally be traced to one or more specific factors, so quantifying these additional room nights is somewhat easier than estimating unaccommodated demand. The procedure used is similar to the build-up approach based on an analysis of demand generators. The appraiser evaluates each generator of induced demand to determine the number of room nights that will be attracted to the market area. Induced demand may either enter the market all at once or gradually over one or more years.

Induced demand is occasionally factored into the market on a temporary basis. Examples of this scenario involve one-time or cyclical events hosted by a given lodging market, such as the Olympics and the Super Bowl. Movie crews in town for extended shoots are another common example of temporary induced demand. In such cases, appraisers must take care to factor the associated demand levels in and out of the projections at the appropriate time.

Unaccommodated demand and induced demand combined equal the total latent demand for the market area. The following case study demonstrates the procedures for estimating the unaccommodated and induced demand for the subject's market area.

CASE STUDY

Estimate Latent Demand

Analysis of the subject's market area indicates the presence of latent hotel demand composed of both unaccommodated and induced room night demand. To show the true depth of the market, latent demand must be quantified.

The composition of demand in the market, area-wide occupancy, the number of fill nights, and the amount of turned away demand all indicate that the local market has a certain amount of unaccommodated room night demand.

The composition of local hotel demand shows a definite commercial orientation (58% of total demand), which suggests a heavy influx of room nights on Monday, Tuesday, Wednesday, and Thursday with a significant drop off on Friday, Saturday, and Sunday. Moreover, the groups currently using the ar-

ea's lodging facilities are business-related and tend to meet Monday through Thursdays rather than on weekends. Given these findings, more than 80% of the local room night demand is likely to need accommodations during the week. This demand pattern could produce an overflow condition and create unaccommodated demand.

The area-wide occupancy calculated from accommodated demand was 72% in the base year. Considering the depth of the commercial market and the Monday through Thursday orientation of the demand, 72% occupancy reflects a healthy hotel market. This observation further supports the presence of unaccommodated demand.

To quantify the amount of unaccommodated demand, the number of commercial and meeting and group fill nights must be estimated. Assuming that 90% of the base year's commercial demand and 80% of the meeting and group demand are concentrated Monday through Thursday, a total of 364,338 room nights are demanded this time period:

Based on these calculations, it is reasonable to assume that the local market experiences at least 104 fill nights (Tuesday and Wednesday) per year as a result of the concentration of commercial and meeting and group demand. If this should occur as demonstrated above, Monday and Thursday nights would still achieve occupancies averaging just below 80%. This estimate of fill nights was confirmed by manager interviews conducted during fieldwork.

Most of the estimated unaccommodated demand comes from the commercial and meeting and group segments. Because the market has a relatively strong leisure orientation as well, a certain amount of unaccommodated leisure demand is also anticipated.

Based on the preceding analysis, the unaccommodated demand estimates shown in Table C.S.3.9 were made for the subject market area.

Unaccommodated demand for the commercial and meeting and group segments amounts to an average of 288 room nights per night for the 104 Tues-

day and Wednesday nights per year. This number seems reasonable considering the size of the market and was supported by data accumulated during fieldwork.

Unaccommodated demand for the leisure segment is concentrated during the summer months when vacationers travel through the area en route to nearby Manhattan attractions and nearby beach resorts.

The opening of the proposed Sheraton Hotel is expected to create induced demand in the meeting and group segment. Because of the extensive meeting facilities contained in this property and the strong image that the Sheraton brand brings to the meetings market, additional room nights of demand will be attracted to the area solely as a result of the new hotel's openings. In addition, the county's convention center has recently been renovated and expanded to accommodate larger groups. A new rooms tax dedicated to the local convention bureau should enable this agency to market its facility to a broader group of meeting and group users. Based on discussions with the Sheraton developer and representatives of the convention bureau, it is antic-

ipated that approximately 15,000 room nights of additional meeting and group demand will be attracted to this market each year.

The induced demand that will be attracted to the local market over the next several years is reflected in the phase-in schedule shown in Table C.S.3.10. Note that the induced demand is not expected to enter the market until the third projection year, the projected date of opening for the Sheraton Hotel.

Quantify Total Room Night Demand

The last step in the build-up approach based on an analysis of lodging activity is to total the area's existing and potential room night demand. This demand includes both accommodated and latent demand, which were identified in the preceding steps. The following case study will show how this demand is quantified.

CASE STUDY

Quantify Total Room Night Demand

Based on the data developed during the previous steps, the total potential room night demand for the subject market area in the base year can be calculated. This procedure is identified in Table C.S.3.11.

Build-up Approach Based on an Analysis of Demand Generators

In markets where there are relatively few demand generators, it is sometimes appropriate to quantify the existing hotel room night demand by interviewing demand generators. As markets become more complex and the numbers of generators increase, it becomes more difficult to identify all the demand

generators and conduct an accurate survey. Most markets are too complex to rely solely on this approach, so the analysis of lodging activity is usually emphasized and selective demand generator interviews are used to determine the characteristics of the transient demand.

The build-up approach based on an analysis of demand generators is typically performed in three steps:

1. Identify generators of transient visitation.
2. Interview or survey selected demand generators and identify the characteristics of the demand.
3. Quantify room night demand.

Each step in the analysis of demand generators will be discussed. Then all three steps will be illustrated as the process is applied to the case study property.

Identify Generators of Transient Visitation

The generators of transient visitation are identified when the final market area is defined. There may be many possible sources of transient visitation and every effort should be made to compile a complete list. The following methods can be used to identify generators of hotel demand.

1. Interview local hotel and motel managers to determine the sources of their occupancy. Ask for a percentage breakdown on the types of customers (i.e., commercial, convention, leisure) and try to learn the names of specific firms or groups that use the facility on a regular basis.
2. Obtain a directory of local businesses and identify those with regional or national operations that are likely to attract out-of-town customers, suppliers, vendors, or company representatives.

3. Obtain statistics pertaining to area visitation from the local convention and visitors bureau. Request a list of recent conventions and meetings that used local hostelries. Determine if the primary market area has any popular tourist or vacation attractions. Visitor counts and projections can be helpful if their reliability can be verified.
4. Visit car rental agencies, especially those at local airports, to determine which firms regularly rent cars. This information will indicate which area businesses attract out-of-town visitation. These agencies also can supply information about which motels are popular among their clients.
5. Drive around the area looking for concentrations of out-of-state cars in industrial parks, office complexes, government centers, regional hospitals, and other facilities. The parking lots of local hostelries also contain many market indicators. Do most of the cars belong to out-of-state or in-state residents? Do they belong to businessmen traveling

alone (clean and neat) or families on vacation (with luggage, games, and roadmaps)? A late-night parking lot count can indicate a highway motel's occupancy, assuming one vehicle per room. Even more important, a parking lot count can indicate the relative competitiveness of area hostels if all are surveyed on the same night. One night's count is not necessarily indicative of annual occupancy, so additional factors should also be considered.

6. Interview with chamber of commerce officials, visitor information center employees, taxi drivers, gas station operators, and restaurant managers. These individuals are often helpful in identifying potential sources of transient visitation. The local building department can also provide information on proposed projects and changes in highway patterns.

Identifying the prime generators of demand within a given market area is relatively simple. When the survey is completed, the list will probably con-

tain one or more of the following: businesses -- office buildings, industrial parks, research facilities, manufacturing plants; government centers; airports; convention centers and conference facilities; colleges and universities; tourist attractions; vacation and recreation areas; parks and scenic areas; hospitals; sports attractions; casinos; military bases; trade and professional associations; convenient highway stopping points; regional shopping centers; and special events such as state fairs and parades. For market areas with many demand generators, the list should rank the sources in order of their estimated potential to generate demand. Prime sources with the greatest ability to attract out-of-town visitors should be researched first so that the appraiser can conduct a thorough analysis.

Interview or Survey Selected Generators

The most important step in the survey process is quantifying the total demand into measurable units -- i.e., room nights. By estimating the number of room nights attributable to each generator of visitation in the subject market area, the total micro demand can be determined.

In addition to quantifying total demand, the appraiser's survey should outline the general characteristics of the travelers who make up the potential market. The following list indicates factors that can help define the demand and may be useful in designing a proposed hostelry.

Demand Factors

- Number of nights per stay
- Number of people per room
- Periods of use during the year

Definition of seasonality

Fluctuations in use during the year

Fluctuations in use during the month

Fluctuations in use during the week

- Price willing to pay

- Food, beverage, entertainment, and telephone usage

Design Factors

- Number of people per guest room

Space requirements

Bed requirements

Bathroom requirements

Closet and storage requirements

- Use of guest rooms for purposes other than sleeping (i.e., meetings, entertainment, interviewing, or displays)

Space requirements

Furniture and layout

Lighting and decor

- Restaurant and lounge facilities

Space requirements

Decor, menu, and price

Kitchen equipment

Staffing

- Meeting and banquet facilities

Space requirements

Types of configuration

Special equipment

- Methods of travel

Parking requirements

Entrance, loading, and baggage requirements

- Recreational facilities

The list of demand generators must be analyzed in order to select market-surveying techniques that will be most effective in quantifying potential demand and defining specific traveler characteristics. Research techniques may include personal and telephone interviews, letter questionnaires, and use of available data and surveys.

Regardless of the techniques chosen, it is most important to locate and question the individuals most knowledgeable on the subject. For a hotel demand study, these people are typically those who make hotel reservations -- e.g., secretaries, executive transfer departments, travel departments, personnel and recruitment departments, convention and visitor bureau placement departments, tour operators and travel agents, airline flight service and customer relations departments, and college alumni and athletic offices. The individuals who actually book reservations for out-of-town visitors are referred

to as bookers. Purchasing agents and buyers, executives, receptionists, college admissions officers, and park rangers who meet out-of-town visitors might also be questioned. Security departments, convention and visitor bureau registration and research departments, and hospital admissions departments who control visitation data are other good sources. People who see and come in contact with out-of-town visitors are called seers.

Personal interviews produce the most reliable data, but they are usually very time-consuming. In areas with many sources of visitation, personal interviews can be limited to those with the greatest potential for generating room nights. A checklist of essential items to cover should be devised and interview time should be limited to five or 10 minutes. Use appointments only if an initial drop-in visit produces no results.

Some of the key questions typically asked during an interview include

-
- How many out-of-town visitors do you average each week, month, or year?
 - What is the purpose of the visitation?
 - How long do the visitors stay?
 - Are the visitors visiting any other demand sources in the area?
 - Where are the visitors staying now?
 - What rates are they willing to pay?

Once these questions are answered, more detailed questions should be asked to identify some of the characteristics of the market. The demand and design factors listed previously can be used as a guide. The interviewer should always ask if there are any other people in the organization who have contact with visitors. The interviewer should specify the purpose of the interview because the more information the interviewer is willing to provide, the more information he or she will receive.

Telephone interviews are less time-consuming, but they rarely produce the same quality of data. Less important demand sources can be interviewed over the phone and later seen personally if greater potential is discovered.

Letter questionnaires are useful for mass surveys when hundreds of identifiable demand generators are involved. A short, simple form that can be completed in less than five minutes usually yields the best results. It is important to contact the person best suited to answer the questions when using this type of survey. A brief letter explaining the purpose of the survey should accompany each questionnaire. A greater response will be obtained if someone who is well known in the community signs the letter. A self-addressed, stamped envelope for returning replies must be enclosed.

Occasionally various groups and municipal agencies compile data pertaining to local transient demand. These data are normally part of larger studies conducted in connection with urban renewal or redevelopment projects, proposed convention centers, and master development plans. Some organizations that may perform such market surveys include chambers of commerce,

convention bureaus, municipal planning departments, redevelopment agencies, financial institutions, and utility companies. Data obtained from these sources should be verified. If the information is usable it can serve as a good starting point for defining the local transient market.

All major generators of transient visitation should be surveyed with a personal or telephone interview or a mailed questionnaire. In market areas with many secondary generators of visitation, however, these techniques may not be practical. Time restraints and the inability to identify smaller generators often necessitate some form of sampling.

Quantify Room Night Demand

Sampling is a market research procedure in which conclusions about a large population are drawn from a thorough analysis of a representative portion of the population. Properly applied, sampling generally yields more accurate

results than complete surveys because more time can be devoted to correct interviewing and data collection techniques.

The key to good sampling is selecting the unit of comparison that best reflects the total market. For example, a frequently used measure of potential commercial traveler demand is room nights per square foot of office space. Interviewing a representative sample of office space users and estimating how many out-of-town visitors are received over a given period of time can be used to develop a unit of comparison. The number of visitor room nights is divided by the total square footage of office space within the sample. Multiplying this factor by the amount of office space within the market area produces an indication of the potential commercial demand. If necessary, adjustments can be made to avoid double counting of travelers visiting more than one firm.

Other units of comparison that may reflect transient visitation are population, employment, university enrollment, hospital beds, traffic counts, retail sales, and convention attendance. Many books have been written on correct sam-

pling and market research procedures. Although every market area requires a somewhat specialized approach, three basic rules should be followed:

1. The sample must be representative of the total market.
2. Data and information from the sample must be factual and unbiased.
3. The units of comparison applied should reflect market behavior.

Analyzing demand generators provides an estimate of the total number of room nights available in the market area as well as specific information about the characteristics of the demand. The total potential demand must be divided among all the competitive lodging facilities before the market capture rate for the subject property can be estimated.

The build-up approach based on an analysis of demand generators is demonstrated in the following case study.

CASE STUDY

Identify Generators of Transient Visitation

Local chamber of commerce officials, county planners, and various hotel and real estate professionals were interviewed to identify the generators of transient visitation in the market area. Most of the major businesses and attractions in the area that attract overnight visitors are described in the following list. The generators can be located by number on the area map.

1. Office park. A 2,000,000-square-foot office park is located directly across Interstate 495 from the site of the proposed Sheraton Hotel. This fully developed and leased office park houses many regional sales and service departments as well as national firms.
2. Aerospace firm. This major aircraft component manufacturer has 3,500,000 square feet of building space and employs more than 15,000 people. It is situated one exit east of the subject, along Interstate 495.

3. Communications firm. The research division of a national communications firm is housed in a major office complex two miles north of the subject, off Route 110. It employs 10,000 people in a facility of more than 3,000,000 square feet.
4. Aircraft engine producer. This jet engine manufacturer currently employs 5,000 people and occupies more than 2,000,000 square feet of building space. The firm is located approximately three miles south of the Sheraton site, off Route 110.
5. High technology research park. An office park of 25 communication-oriented research facilities owned by major manufacturers is located adjacent to the Sheraton site, directly to the south. The park is fully developed and contains approximately 1,000,000 square feet of laboratory and office space.
6. Industrial park. This established industrial park houses 100 small and medium-sized manufacturing firms that perform subcontracting work for the aircraft engine producer (4). Located one mile east of the proposed Sheraton, on a service road next to Interstate 495, the industrial park has some excess land for future expansion. The current total building area of the firms located in the park is approximately 2,000,000 square feet.

7. Office district. A downtown-type office district with an inventory of 2,520,000 square feet of high-rent office space is located nine miles west of the subject property, next to an Interstate 495 interchange. The businesses occupying space in this office district are primarily financial, legal, and insurance firms.
8. New industrial park. This new, 700-acre industrial park with approximately 200 acres currently developed is situated five miles east of the subject site, at an Interstate 495 exit. The park has 1,350,000 square feet of space still under lease, and favorable future growth trends are indicated.
9. Regional mall. Located on a secondary highway approximately five miles northeast of the proposed Sheraton site, this 75-acre regional shopping mall has 135 stores and 1,500,000 square feet of space.
10. State hospital. A 1,000-bed state mental hospital located eight miles southwest of the subject on a secondary highway generates some commercial visitation.
11. Convention center. The ten-year-old convention center recently expanded its exhibit space from 75,000 to 100,000 square feet of floor area. It is located on Route 110, near the subject site, just south of a nearby Hilton

Hotel. The convention center, used primarily for trade shows and local events, can accommodate up to 10,000 people.

12. Resort area. A beach resort area, which attracts vacationers during the summer months and weekend travelers during the rest of the year, is a 30-minute drive from the site of the Sheraton by car.

Survey Selected Generators

These 12 potential generators of demand indicate that the transient market is composed of commercial, meeting and group, and leisure travelers.

The commercial demand in the area uses lodging facilities five nights per week. Some commercial visitors arrive Sunday night to start work early Monday morning. Commercial demand is low Sunday night, then increases and remains fairly level Monday, Tuesday, Wednesday, and Thursday nights; demand drops off significantly on Friday and Saturday.

The meeting and group demand is generated primarily by the convention center and by several research-oriented firms that hold conferences and training sessions in the area. The bulk of this demand is felt during the fall, winter, and spring months; Sunday through Thursday are the peak convention days. Although commercial travelers rarely use lodging facilities on Friday or Saturday night, certain types of conventions prefer weekends and holiday periods when rates are typically lower.

The immediate area surrounding the proposed Sheraton has no tourist attractions. However, a summer beach resort approximately 30 minutes to the south draws a significant number of leisure travelers on weekends during the spring and fall and all week during the summer. Because this resort area is seasonal, there are only a few, small, family-owned motels near the beach. Consequently, many overnight visitors must find accommodations further away. Since primary access to the beach resort is via Interstate 495 and Route 110, many vacationers stay in the various hotels surrounding the subject site. The leisure demand generated by this resort area tends to be negatively correlated to the commercial and meeting and group patronage attracted to the area's business and convention center. Local lodging facilities benefit from this situation, which tends to create level occupancy throughout the year.

The subject market area has a number of primary generators of transient demand, many of which comprise secondary generators such as office parks that house many different tenants. It has therefore been determined that the build-up approach based on an analysis of demand generators is not an appropriate method for quantifying the existing transient demand. The demand generators identified have been analyzed, however, to assess the nature of the transient demand and the characteristics and desires of local visitors. Personal interviews, telephone surveys, and letter questionnaires were used to gather information from several demand generators. A summary of the appraiser's findings follows.

Commercial Demand

- Aerospace firm (2). The security department of this large manufacturer provided the best information on transient visitation. Based on an analysis of the visitor registration log over a 24-month period, the appraiser estimates that the aerospace firm attracts approximately 110 outside visitors per week; these visitors stay at local hotels for an average of two

nights per visit. Over the past several years, this type of visitation has remained fairly stable.

- Communications firm (3). The bulk of the outside visitation to this firm consists of meeting and group demand. Most of the transient commercial visitors are out-of-town suppliers, salespeople, and manufacturers' representatives. Many of these visitors pass through the firm's purchasing department.
- Aircraft engine producer (4). This firm recently moved into the area and maintains few records on outside visitation. Before constructing the plant, however, the company had to submit to the county an economic impact study outlining the firm's potential benefits to the area. One of the benefits cited was hotel patronage from visitors to the plant. A footnote to the study stated that the company's visitation estimate was based on visitation histories from the firm's other plants throughout the United States. According to this study, approximately 12,850 room nights would be generated during the first year, or an average of 247 room nights per week. This figure is expected to increase by approximately 5% per year.
- Office district (7). A list of office district tenants was compared to a list of the tenants occupying the office park (1). The office district has more local firms (i.e., accounting and legal firms) which would probably not

generate as much visitation as the regional and national firms with offices in the park.

- New industrial park (8). The tenants occupying the new industrial park were more national in scope than those at the established industrial park (6).
- Regional mall (9). Many tenants of the regional mall are national retailers. Home office personnel, who take inventories and prepare audits, visit each store on a regular basis.
- State hospital (10). State officials visit this property weekly to perform various administrative functions.

Meeting and Group Demand

- Convention and visitors' bureau. The primary source for information on the meeting and group segment was the local convention and visitors' bureau, which is responsible for booking and tracking this type of visitation.

- Discussions with the director of the local bureau revealed that the area has three main generators of meeting and group demand: the convention center (11); the communications firm (3), which sponsors training sessions; and the research park (5), which holds seminars.
- Convention center (11). The ten-year-old convention center has been operating at a stable level for several years. In the past, efforts to attract larger conventions were generally unsuccessful because exhibit space was limited. The renovation and expansion of this facility was recently completed, and is expected to contribute to meeting and group demand growth in future years.
- Research park (5). While assessing the commercial demand generated by the research park, the appraiser discovered that strong meeting and seminar demand was created by this concentration of research-oriented businesses.

Leisure Demand

Resort area (12). Discussions with the local visitors bureau in the resort community showed interest in the area to be growing because of the re-

cent development of several resort amenities such as an 18-hole public golf course, several miniature golf courses, a bowling alley, an amusement park, and an aquarium. These amenities not only attract additional visitors to this destination, they also provide incentive for visitors to extend their stay, creating more room night demand.

Forecasting Room Night Demand

Through the analysis of lodging activity and/or the analysis of demand generators, the appraiser has quantified the total room night demand in the current market. This existing demand consists of one or more of the following components: accommodated demand and latent demand, the latter consisting of unaccommodated demand and induced demand.

Because a market study and valuation require the appraiser to look into the future, the existing room night demand must be forecast over the projection

period. Future hotel demand will increase, decrease, or remain level. The direction and rate of change is estimated by analyzing various economic and demographic indicators.

An excellent context for future demand growth projections may be provided by historical demand growth trends for the lodging market in question. Smith Travel Research (STR) is the leading independent data consulting firm serving the lodging industry. Located in Hendersonville, Tennessee, STR offers composite demand, supply, occupancy, and average rate trends for a specified group of hotels. The trends are generally available over five- and ten-year periods, but may be customized. As for the population of hotels, nearly all the nationally-recognized hotel chains report their data directly to STR. In advance of placing a request, STR will provide a list indicating which hotels in a specific area (county, city, zip code, etc.) have reported their data historically. The user may then select the hotels it wants to include in the survey. STR maintains some base reporting rules in order to prevent a user from isolating the data of any single hotel or a chain of hotels. STR may be reached at (615) 824-8664, or on-line at www.str-online.com. The demand

trends are particularly useful in the development of market demand projections.

Apart from STR data, demand projections are based on analysis of the various economic and demographic data gathered during fieldwork. Forecasts depend on how well various types of economic and demographic data reflect changes in hotel room night demand. Data that accurately mirror future trends in transient visitation are given greater weight in the appraiser's analysis. Since changes in hotel demand are generally tied to specific types of visitation, individual market segments --commercial, meeting and group, and leisure -- are analyzed. Table 3.23 shows the three primary market segments and the types of data that have some propensity to cause changes in hotel room night demand. Other market segments, such as extended stay demand, generally have a profile or character that aligns with one of the three primary segments.

Commercial hotel demand is greatly influenced by trends that relate to business activity such as office space absorption; employment (particularly

wholesale and retail trade, financial, insurance, and real estate, and services); new businesses moving into the area; and airport enplanements. Population growth is not a strong indicator of changes in commercial demand, but it usually sets the lower limit for potential growth in commercial visitation. For example, if an area's population is expected to grow at an annual compounded rate of 1.5%, it is likely that commercial hotel demand will grow by at least the same rate. Other indicators may justify using a higher rate.

There are fewer indicators of meeting and group demand, and a number of these indicators provide only an indirect basis for projecting trends in hotel demand. Convention center activity, particularly usage that generates visitation from outside the area, is probably the best indicator of meeting and group demand. The commercial activity reflected in employment trends and office and industrial space absorption provides an indirect indication of meeting and group demand because many meetings are the result of business activity. Meeting and group demand is also created through the sales efforts of individual hotels; this type of induced demand was discussed in a previous section of the text.

Very few indicators of leisure demand are available. Visitor statistics, particularly in resort areas, can provide some good indications of leisure demand trends and attendance data for area tourist attractions are also useful.

Changes in hotel demand are generally projected by market segment for periods ranging from three to 10 years. In forecasting lodging demand, it is wise to keep the projection period as short as possible. The annual compounded percent of change should reflect the most probable trend in hotel room night demand. Many hotel market studies and valuations seem to project continuous growth in lodging demand, but demand trends do not have to be positive, nor does growth have to increase by the same percentage each year.

The forecast direction and rate of change in hotel room night demand are generally applied to both accommodated and unaccommodated demand components, which tend to move in tandem with one another.

Changes in induced demand are not usually related to projected changes in the accommodated and unaccommodated components of demand. Rather, induced demand depends on the latent demand characteristics exhibited by the specific demand generator. For example, if a large convention hotel is expected to open in a market enabling the area to attract major groups that previously could not be accommodated, the growth and ultimate size of this induced demand will reflect the marketing ability of the hotel operator as well as the hotel's capacity to handle these groups. Depending on the size of this convention hotel, the additional demand will usually be expected to increase over a period of time and then stabilize as the hotel approaches its capacity. Although the growth in induced demand is generally not dependent on the growth in the area's convention demand, the surrounding meeting and group market should be given some consideration in quantifying induced demand.

CASE STUDY

Forecasting Room Night Demand

Table C.S.3.12 identifies the market-wide demand and supply trends provided to the appraisers by Smith Travel Research for the subject lodging market. The “Trend Report” pertains to all suburban Long Island hotels. Because of the breadth of this survey, the supply and demand figures do not align with the market-wide data otherwise identified in this case study. Nevertheless, the general trends contribute to the context for this analysis. Between 1990 and 1999, demand among suburban Long Island hotels increased at an average annual compounded percentage rate of 3.2%, with the rate of growth ranging from 4.0% to 6.9% per year between 1994 and 1999.

Otherwise, the basis for the room night demand projection is based upon the local economic and demographic trends. Table C.S.3.13 summarizes the various types of data accumulated in the field and analyzed in house. It indicates the date of the data, whether actual (historic) or projected, and the average annual compounded percent of change observed over that period.

Based on these data, the following analysis was undertaken to estimate the demand growth rates to be used in projecting future hotel room night demand for the subject market area:

Commercial Demand

Historic economic and demographic trends in the subject market area show strong growth. The local population has grown at an annual compounded rate of 2.2% over the past ten years; commercial indicators for the FIRE, trade, and services employment sectors have increased 2.5%, 1.6%, and 4.0%, respectively. Airport enplanements were strong at 3.8% and new business showed an annual gain of 2.3%. Future projections suggest continued growth, but probably not at the levels previously experienced. Office space, industrial space, and retail space absorption is expected to grow at 3.1%, 2.9%, and 3.3%, respectively. Population growth is projected to slow to 1.7%, while airport enplanement growth will likely decelerate to 1.5%.

Based on this analysis, we have projected commercial demand growth of 5.00% in the first projection year, slowing to 4.0% in the second projection

year, and 3.0% in the third projection year. Commercial segment demand growth is expected to stabilize at 3.0% per year thereafter.

Meeting and Group Demand

Whereas the historical rate of meeting and group demand growth in the subject lodging market appears to have been realized at a rate of 1% to 2% per year, the recent completion of the convention center's renovation and expansion justifies the use of a stronger growth rate throughout our projection period. The convention center now features greater potential for attracting larger groups. Based on these considerations, we have projected annual meeting and group demand growth of 2.00% in the first projection year, 2.50% in the second projection year, and 2.75% in the third projection year. Meeting and group demand growth is projected to stabilize at 2.75% per year thereafter.

Leisure Demand

Visitor counts in the resort area south of the subject site have grown at an annual rate of 1.0% for the past five years. According to the local visitor's bureau, the upgraded amenities at the resort are having a positive impact on overnight tourist visitation. As such, an annual leisure segment demand growth factor of 1.50% has been applied for purposes of this analysis.

Table C.S.3.14 shows the projected growth in hotel room night demand for each of the three market segments.

These compounded annual growth rates are applied to both accommodated and unaccommodated room night demand. Induced demand is projected to grow to 15,000 room nights in the fifth projection year and then remain level for the remainder of the projection period. Table C.S.3.15 shows the projected room night demand for each of the three market segments for the next five years.

Now the micro demand analysis for the subject market area is complete. The next component of the market study is an analysis of the competitive lodging

supply, which will form the basis for allocating the total area-wide room night demand among the competitive hotels in the market.

4. Supply of Transient Accommodations

A hotel appraiser should be familiar with both macro and micro hotel supply factors. Long-term macro supply trends often have a significant effect on local hotels, particularly with respect to hotel size, layout, design, chain affiliation, financial structure, and type of management. An understanding of the micro supply is needed to predict the relative competitiveness of area properties and to estimate the subject property's probable market share.

Macro Supply

It has traditionally been difficult to determine the macro supply for transient lodging accommodations within the United States because there was no uniform, long-term census that quantified the number of hotel units on a yearly basis. One of the problems relates to definition. What constitutes a lodging facility? Should properties such as rooming houses, residential hotels, dor-

mitories, camps, seasonal resorts, and motels of fewer than 10 units be included? The U.S. Bureau of the Census has information dating back to 1939, but the definition of a lodging facility used at that time included many properties that would not be considered competitive lodgings today.

Today the hotel data-consulting firm of Smith Travel Research (STR) addresses the problem of quantifying the supply of hotel and motel rooms in the United States. STR has become the best source of hotel operational data in the industry. STR tracks the number of lodging units currently operating in the United States and compiles occupancy, average room rate, and other operational statistics on thousands of hotels and motels throughout the nation. This information is then published in composite form and made available to subscribers of *Lodging Outlook*. STR can also be commissioned to generate specific data such as information on market share and penetration, or produce a trend report detailing supply, demand, occupancy, average rate, and RevPAR trends for a specific collection of hotels. (RevPAR is defined in the subsequent pages.) As noted previously in this text, STR may be contacted at (615) 824-8664, or on-line at www.str-online.com.

Occupancy, Average Rate, and RevPAR Data

Table 4.1 identifies historical and projected trends in supply, demand, and occupancy for the United States, based on data provided by STR, as well as HVS International. Between 1970 and 1998, the number of hotel rooms in the United States increased at an average annual compounded percentage rate of 2.4%. Between 1990 and 1998, the rate of growth equated to 1.8% per year. Recession in the early 1990s, and oversupply throughout the industry, slowed growth to a low of 0.3% in 1993. As the industry stabilized, the environment for additional gains in supply improved. Gains of 3.5% and 3.9% were noted in 1997 and 1998, respectively. Demand growth was outpaced by supply growth between 1970 and 1998, driving the national occupancy rate down from 71.4% in 1970 to 64.0% in 1998. The national occupancy rate has generally remained in the range of 60% to 65% since 1982. The strongest national occupancy rate noted on the chart, 72.3%, was recorded in 1979. The lowest national occupancy rate, 61.9%, was recorded in 1991.

STR also records average rate and RevPAR trends for the nation. Table 4.2 identifies historical and projected trends in national average rate, occupancy rate, and RevPAR. RevPAR equates to revenue per available room and is calculated as the product of occupancy and average rate. Because it accounts for both occupancy and average rate together, this figure provides the best overall measure of revenue-generating results for a single property or a group of hotels. For example, a hotel operating at a 55% occupancy rate with a room rate of \$65 has a RevPAR of \$35.75 ($55\% \times \$65$). This hotel is generating more rooms revenue than a hotel with a 70% occupancy rate and a room rate of \$50, which has a RevPAR of \$35 ($70\% \times \50). Table 4.2 also sets forth the CPI-U (Consumer Price Index for Urban Consumers). A comparison of national average rate growth trends with the CPI-U is meaningful.

Between 1970 and 1998, the national average rate increased at an average annual compounded percentage rate of 6.2%, slowing to 3.7% between 1990 and 1998. In both cases, hotel average rate growth has exceeded the rate of gain in the CPI-U. In 1998, the national average rate increased by 4.4%, compared to the 1.6% gain in the CPI-U. RevPAR growth has also outpaced the rate of

change in the CPI-U. In that the rate of change in hotel expenses generally conforms with that of the CPI-U, the fact that average rate gains (and therefore hotel revenues) have increased at a superior pace is a highly positive scenario from the standpoint of overall profit margins.

Table 4.3 sets forth supply levels for each of the 50 states in the nation, as well as the District of Columbia, as of year-end 1989 and 1994, and as of September 30, 1999. As of 1999, the states with the largest quantity of hotel rooms (in descending order) were California, Florida, and Texas. Between 1994 and 1999, the highest rates of supply growth were noted in Mississippi, Minnesota, and Nevada.

STR also sorts lodging industry census data by the type of hotel location, i.e., urban, suburban, airport, highway, and resort. Table 4.4 shows these census data, sorted by location. In terms of the number of rooms, suburban supply increased most dramatically between 1994 and 1999, while the resort sector recorded the smallest increase in inventory. Table 4.5 shows the share of total

supply contributed by each of the various location types. The suburbs account for the largest single share, at 34%.

STR also sorts lodging industry census data by property type, i.e., gaming, convention, conference center, all suites, and standard hotels. Table 4.6 shows these census data, sorted by property type. In terms of the number of rooms, the number of all suites hotels increased by 68.8%, while gaming hotels increased by 38.0%. Only minor increases in convention and conference center hotels were noted. Table 4.7 shows the share of total supply contributed by each of the various property types.

Table 4.8 sets forth occupancy levels for each of the 50 states in the nation, as well as the District of Columbia, for 1989, 1994, and the 12 months ended September 30, 1999. In 1999, the highest occupancy rates were recorded by Nevada, Rhode Island, and New York. The lowest occupancy rates were recorded by Wyoming, South Dakota, and Arkansas. Between 1994 and 1999, the strongest rates of occupancy gain were realized by Maine, Connecticut, and Vermont.

Table 4.9 sets forth occupancy rate levels by location type. Urban hotels posted the strongest occupancy rate in 1999; the urban location was the only one to realize a gain in occupancy between 1994 and 1999.

Table 4.10 sets forth occupancy rate levels by property type. Gaming hotels posted the highest occupancy level in 1999, although this sector's occupancy levels actually declined between 1994 and 1999. Between 1994 and 1999, occupancy rates increased for both the convention and conference center sectors.

Table 4.11 sets forth average rate levels for each of the 50 states in the nation, as well as the District of Columbia, for 1989, 1994, and the 12 months ended September 30, 1999. In 1999, the highest average rate levels were recorded by New York, Hawaii, and Massachusetts, as well as the District of Columbia. The lowest average rate levels were recorded North Dakota, Oklahoma, and

Arkansas. Between 1994 and 1999, the strongest rates of average rate gain were realized by New York, Connecticut, and Delaware.

Table 4.12 sets forth average rate levels by location type. Resorts and urban hotels posted the strongest average rate levels in 1999. Urban hotels experienced the strongest rate of average rate growth between 1994 and 1999.

Table 4.13 sets forth average rate levels by property type. Convention and conference center hotels posted the highest average rate levels in 1999. These sectors also recorded the strongest rate of average rate growth between 1994 and 1999.

Table 4.14 sets forth RevPAR levels for each of the 50 states in the nation, as well as the District of Columbia, for 1989, 1994, and the 12 months ended September 30, 1999. In 1999, the highest RevPAR levels were recorded by the states of New York, Hawaii, and Massachusetts, as well as the District of Columbia. The lowest RevPAR levels were recorded by the states of North Da-

kota, Oklahoma, and Arkansas. Between 1994 and 1999, the strongest rates of RevPAR gain were realized by the states of Connecticut, New York, and Rhode Island.

Table 4.15 sets forth RevPAR levels by location type. Resorts and urban hotels posted the strongest RevPAR levels in 1999, as well as the strongest rates of RevPAR growth between 1994 and 1999.

Table 4.16 sets forth RevPAR levels by property type. Convention and conference center hotels posted the highest RevPAR levels in 1999, as well as the strongest rates of RevPAR growth between 1994 and 1999.

Classification of Lodging Facilities

Hotels and motels are designed and located to attract one or more specific markets. Because hotels differ in their design, physical facilities, amenities, and locations, all of which directly impact financial operating results, it is

important to define and accurately classify the different characteristics of lodging facilities.

Hotels and motels can be classified using three categories:

- Type of facilities offered
- Class or quality of facilities and service
- Location

Using this classification procedure, a hotel could be described as a mid-rate, convention hotel with an airport location. Its class or quality level is mid-rate, the facilities are specifically designed to accommodate conventions, and the property's location is near an airport. Each of the three categories will be discussed and illustrated with examples.

Type of Facilities Offered

The type of facilities refers to the physical hotel property as well as the amenities and services available to guests. The types of lodging facilities commonly found in the United States include:

- Commercial
- Convention
- Resort
- All-suite
- Extended-stay
- Microtel
- Conference center
- Casino
- Bed and breakfast
- Health spa

Commercial

This type of facility caters primarily to the individual commercial traveler, whose purpose of travel is generally to conduct business within the market area surrounding the hotel. Consequently, these properties are usually situated near concentrations of office and industrial buildings, restaurants, entertainment outlets, and one or more modes of transportation. Facilities and amenities normally include a restaurant and lounge (on site or nearby), small meeting and conference rooms, recreational facilities (e.g., swimming pool, fitness center) and shops. The services offered are oriented toward the commercial traveler and generally include room service, secretarial support, computer terminals, photocopy and fax services, concierge and valet services, airport pickup, local transportation, and auto rentals. Commercial hotels typically experience high occupancy rates Monday through Thursday nights with a significant drop-off on Friday, Saturday, and Sunday nights. This weekly occupancy pattern can sometimes be balanced by supplementing the low weekend commercial demand with meeting and group patronage.

Convention

Convention hotels are designed to accommodate large groups and functions. They provide facilities such as one or more large ballrooms with break-out areas for meetings and conferences, exhibit space for trade shows, sample and display rooms for sales meetings, extensive restaurant and lounge capacity, and the same recreational amenities found in commercial hotels. The key component of a convention hotel is meeting space, which should amount to at least 30 square feet per guest room. Convention hotels are often located near commercial hotels and sometimes proximate to convention centers. The services offered are oriented toward groups and generally include meeting planning and meeting support services; efficient check-in, check-out and billing procedures; rental of audiovisual, computer, and communications equipment; and entertainment as well as the services previously described for commercial hotels. Convention hotels experience occupancy trends that are generally strong Monday through Thursday nights and drop-off on weekends. Since some groups prefer to meet on weekends, a convention hotel may post higher weekend occupancies than most commercial hotels. Con-

vention hotels are also affected by monthly occupancy trends because many groups do not meet during the summer months or holiday periods.

Resort

Because resort hotels are oriented toward the leisure traveler, they either provide or are located near activities such as swimming, tennis, golf, boating, skiing, ice skating, riding, hiking, sightseeing and other recreational amusements. Resort properties are usually situated in scenic areas such as the mountains or the coast. In addition to recreational activities, resort hotels generally offer a limited amount of meeting and banquet space; restaurant, lounge, and entertainment outlets; a fitness center; concierge and valet services; and transportation and tour services. At some resorts meals are included in the room rate. An American Plan provides breakfast, lunch, and dinner; only breakfast and dinner are included in the Modified American Plan. A European plan hotel includes no meals in the price of the accommodations. All-inclusive resorts are increasingly popular, and predominate in Caribbean and Mexican resorts. In this plan, any activity that might commonly generate an

extra charge (meals, all beverages, recreation, etc.) is included in the tariff. Resort hotels are often affected by seasonality. Depending on the nature of the resort area, certain periods of time may have potentially high or low levels of occupancy. For example, a ski resort should boom during the winter ski months and sometimes be busy during the summer as well. The shoulder months in the spring and fall can be quite slow. These fluctuations in occupancies create operational inefficiencies that can affect a property's financial performance adversely.

All-Suite

All-suite hotels have guest rooms that include both a sleeping area and a separate living area in a single unit. In some hotels the suites are two room modules that are side-by-side; others have elongated suites with the living area located at the front and the sleeping area to the rear. The living area typically contains a couch that converts into a bed, armchairs, a coffee table, an eating table, and a television. Most offer a kitchen with at least a microwave oven and a small refrigerator. Some are more elaborate and contain full kitchens.

The bedrooms generally have less area than normal hotel rooms but are furnished in a standard manner. The economics of the all-suite concept are based on eliminating or reducing a significant portion of the hotel's public space (i.e., restaurant, lounge, meeting space, and lobby area) and transferring this square footage to the guest rooms. All-suite hotels cater primarily to individual commercial and leisure travelers who do not have need for a large amount of public area. Transferring public space to the guest rooms effectively maintains the same total building area so an all-suite hotel can charge the same room rate as a comparable, full-facility property. For the traveler who does not require public space, the all-suite product is an excellent value.

All-suite hotels offer most of the amenities normally found in commercial hotels, but in some instances they are downsized. Amenities may include a restaurant that serves in the evenings as a lounge, a swimming pool, and a fitness center. The services offered are generally comparable to a commercial hotel. In a number of chain hotels, the all-suite service includes a full breakfast and a complimentary cocktail period in the evening. All-suite hotels can be located in any area suitable for commercial hotels.

In the past two decades, a number of all-suite hotels have been occupancy leaders in their individual markets, demonstrating that the concept has been well received by the U.S. travel market.

Extended-Stay

The extended-stay hotel is a cross between an apartment complex and an all-suite hotel. Its guestroom units are generally larger than those found in a standard, all-suite hotel and contain more living space, larger closets, and a full kitchen. Because the guest units are designed to accommodate stays of more than 10 days, they are equipped with full-size refrigerators, stoves with ovens, microwaves, sinks, and dishwashers. They also include cooking equipment, dishes, and eating utensils. The exterior of the property generally resembles a garden apartment complex and the overall atmosphere is residential. The amenities and services offered by an extended-stay hotel are similar to those provided by all-suite facilities. Some chains include a free conti-

mental breakfast along with a complimentary cocktail reception. A unique service offered by at least one extended-stay chain is grocery-shopping service. Hotel staff will purchase the items requested on a guest's shopping list and deliver the order by the end of the day. The best locations for extended-stay hotels are residential or commercial areas where guests have access to daily conveniences such as grocery stores, dry cleaners, pharmacies, restaurants, movie theaters, and other entertainment.

The extended-stay concept works the best when the market has a sufficient number of travelers who are staying for five or more consecutive days and can account for at least 70% of the property's overall occupancy. This customer mix enables the hotel to achieve high week-end occupancy, which greatly enhances the property's operational efficiencies. Well-operated extended-stay hotels routinely operate at more than 80% occupancy when there is a sufficient amount of long-term patronage.

Microtel

One of the new hotel products introduced in the last half of the 1980s was the microtel. This low-end budget product is based on the idea that much of the floor area in a typical hotel guest room is unnecessary and can be eliminated, thereby lowering the property's development cost, reducing operating expenses, and allowing the microtel to charge lower room rates than other budget hotels. While the standard budget or economy hotel room has more than 250 square feet of space, the microtel provides a queen-size bed, dresser, nightstands, desk, sitting alcove, and a full bath with a combination shower and tub in an area of less than 195 square feet. The concept can go further by eliminating many of the costly amenities that have recently been creeping into budget properties such as swimming pools, continental breakfast, morning newspapers, and so forth. The French have taken the microtel concept one step further by providing only a sink in each guest room and communal commodes and showers accessed from the corridors. This allows the hotel to further shrink the size of guest rooms and reduce the number of bathroom fixtures. It remains to be seen whether the American traveling public will accept a guest room without a lavatory and bath.

Conference Center

Dedicated conferences centers are unique hotel products designed specifically to accommodate small groups and meetings. Unlike commercial hotels with attached conference space that derive demand from all market segments, conference centers usually concentrate on the meeting market and some actually exclude other segments that might distract the in-house groups. The primary objective of a conference center is to create an ideal environment for productive, successful meetings. To this end, the following facilities and services are usually offered: high technology meeting space with the latest audiovisual and computer equipment; conference planning services; group meals and coffee breaks, generally packaged in an all-inclusive price; recreational facilities such as swimming, tennis, golf, and fitness equipment; and guest rooms suitable for studying and doing homework. Conference centers are often situated in relatively remote locations to eliminate any distractions that could disrupt the purpose of the meeting. Howev-

er, good transportation is essential and driving time to and from a major airport is usually under one hour.

Conference centers typically cater to small groups that are meeting for training or educational purposes. Social activities are usually minimized so as not to distract the attendees. During weekends and holiday periods when meeting demand is low, conference centers will either try to attract leisure travelers or close down altogether.

The marketing of a conference center is highly specialized because the facilities are directed almost totally toward the high-end meeting planner. Conference center operators must have established contacts in this market niche to capture this segment of the market. Once stable revenue can be established, the profitability of a dedicated conference center is generally very good because facility usage is known at least several weeks in advance and staffing and purchasing can be highly regulated and controlled.

In addition to commercially oriented conference centers, a number of educational institutions and large companies have their own dedicated meeting and lodging facilities.

Casino

Casino hotels combine a transient hotel with a full casino facility. In most instances the guest rooms, restaurants, lounges, and other amenities of the hotel are designed to attract the guest to the casino and keep him or her on the property. The rooms are actually an amenity to the casino. Casino hotels seek to attract individual leisure travelers who enjoy gambling as well as groups. The operation of a casino hotel requires very specialized expertise, not only in marketing the product to the gambler-user but also in controlling the actual gaming activities.

Bed and Breakfast

During the past two decades, the bed and breakfast inn experienced a tremendous increase in popularity. This product, which is not much more than a spruced-up rooming house, offers relatively low-cost accommodations in a comfortable, residential-like atmosphere. Many establishments are historic-type houses with period furnishings and breakfast is generally included in the price. Bed and breakfast establishments are typically owner-operated. They are basically large homes where roomers are taken in to help supplement the property's operating expenses. Since the economics or income-generating capability of such small lodging facilities can seldom support absentee ownership, the most appropriate appraisal approach for bed and breakfast properties is usually sales comparison.

A bed and breakfast facility traditionally connotes a lodging establishment that has a residential-like external appearance, usually with an historical feel. Certain older, independent, small motels feature the same type of ownership and economics as a bed and breakfast; however, these are generally referred to as *ma and pa* motels.

Health Spa

Dedicated health spa resorts are similar in concept to dedicated conference centers in that they cater almost exclusively to one market segment: the health-conscious leisure traveler. A number of hotels offer health and fitness facilities, but they usually do not provide the total environment of a dedicated health spa. Health spas generally offer an all-inclusive program that includes accommodations, meals, a medical check-up, individually designed health-related activities (usually an exercise program), and various types of counseling. Guests normally stay for three days to two weeks and are not encouraged to partake in meals or activities off the premises unless they are under the supervision of the spa's staff. This type of regulation is designed to help the guest achieve a desired, health-related goal. These properties are usually located in resort areas. Their facilities typically include those normally found in resort hotels with heavy emphasis on fitness equipment, exercise rooms, and similar amenities. Health spas require highly specialized marketing and operating expertise, particularly in the area of exercise, fitness, and

health management. The ratio of staff to guests is quite high, so a constant, year-round occupancy is important for operating efficiency.

Class or Quality of Facilities and Services

The class of a lodging facility is a way of describing the quality of the property and the level of service provided by the staff. Generally class is reflected in a hotel's ability to achieve a particular room rate. The class of a hotel relates to its particular market area. The facilities and level of service that might be considered first-class in Amarillo, Texas, may not get such a rating in San Francisco. Generally the best hotel in a particular market is classified as the area's first-class property and other facilities in the same area that offer a lower level of quality or service are assigned lower rankings.

The lodging industry in the United States does not seem to recognize a uniform system of hotel classes. Terms such as first-class, luxury, and super-luxury have various meanings to different people. Table 4.17 shows some of

the class categories frequently used in the United States and their typical ranges of 1999 room rates.

Hotel chains try to market their properties to a particular class of traveler. For example, Motel 6 caters to the very rate-sensitive budget traveler while Four Seasons Hotels attract an upper-end, luxury-oriented clientele. Table 4.18 sets forth an informal ranking of various major U.S. lodging chains based on pricing. This was based on a study performed by HVS International that surveyed hundreds of hotels in the Central U.S. and developed an average published room rate for each chain. This table shows the room rate positioning of each chain as of 1990, 1992, and 1996. The table also divided the group into five classes. Because of the range in product quality of the various hotels operating under a common brand, it is difficult to perform a definitive ranking of the chains. Nevertheless, this table provides a general indication of the identified brands' respective class level, in ascending order.

Over the years there has been very little movement between classes by hotel chains. Most chains attempt to create and maintain a specific image with re-

spect to their class of facilities and service. Some exceptions to this rule include Days Inn and Rodeway Inn. Over the past two decades, Days Inn officials have raised the quality of its affiliates, elevating the brand out of the economy class and into the luxury-budget category. Rodeway Inn was originally known as a mid-rate chain but is now considered economy class.

In the United States the Mobil Travel Guide and the American Automobile Association (AAA) regularly inspect and rate hotels and motels based on factors such as quality and cleanliness of facilities, level of service, professionalism of staff, and types of amenities offered. Their findings are published annually and include a quality rating. Mobil ranks lodging facilities with one to five stars and AAA uses one to five diamonds. Many travelers rely on these guides in the selection of a lodging facility.

Location

The third way to classify lodging facilities is based on location. A property's location affects many factors including the market segments served, the types of facilities and services required, and occupancy cycles. Hotel locations may be classified as airport, highway, center city, suburban, convention center, and resort.

Airport

An airport hotel is situated near a commercial airport and serves out-of-town visitors. This type of location attracts those who use the airport, mostly airline passengers from delayed flights and flight crews. Airport hotels are also natural sites for small and medium sized meetings when some or all of the attendees are coming from outside the immediate area. Most airport hotels are designed to accommodate commercial travelers as well as meeting and group patronage. Leisure demand does not normally make up a significant portion of an airport hotel's market area. Lodging facilities that go after a significant amount of airline-generated business such as airline crews and delayed passengers tend to trade room rates for occupancy. This type of de-

mand is extremely price-sensitive, so the property's average room rate must be low. The offsetting benefit of higher occupancy sometimes makes this strategy effective.

One of the unique services provided by most airport hotels is passenger pick-up and delivery using hotel cars and vans. Depending on the flight schedule, airport shuttle service can range from intermittent to continuous. In either case, operating an airport van is expensive and this expense should be considered in the projection of operating expenses.

Airport hotels generally experience fairly stable year-round occupancy patterns; they usually have higher weekend occupancies than most commercial hotels.

Highway

A highway-oriented lodging facility is located near a major travel route. Visibility and easy access are important. Highway hotels generally attract individual commercial and leisure travelers. These properties are not normally used by the meeting and group segment, so several, small meeting rooms are usually sufficient. A highway hotel should either have its own restaurant or be near a food service facility that serves three meals a day. The long-term success of a highway hotel depends on auto travel, which has at times been adversely affected by shortages of fuel. Changes in highway traffic patterns brought about by new roads, highways, and interchanges can also impact the desirability of a particular location. These are some of the risks inherent in a lodging facility that depends on a single mode of travel access. The occupancy patterns of highway hotels typically reflect the type of travelers using the adjacent highway. Their average length of stay is usually short, ranging from one to three days.

Center City

A center city hotel is in an urban, downtown area. This type of location generally attracts individual commercial travelers as well as the meeting and group market. Some center city hotels in popular destinations such as Boston, New York City, Washington, DC, New Orleans, and San Francisco also attract leisure demand. The physical characteristics important to a center city hotel are adequate parking (usually on-site or valet), strong security, quiet rooms away from street noise, and room service. In areas with a good selection of restaurants nearby, a center city hotel needs only minimal food and beverage facilities unless the property depends on a significant amount of meeting and banquet business. Center city hotels usually have high-rise construction and are more expensive to operate than their suburban counterparts. These properties are almost always subject to higher property taxes, energy costs and labor rates. Moreover, due to site constraints, the physical layout of a center city hotel is not always the most efficient.

Suburban

Suburban hotels are located just outside the center city near commercial areas with concentrations of office, retail, and industrial businesses. These properties cater to individual commercial travelers, meeting and group demand, and some leisure business- particularly on weekends and holidays. Many suburban hotels are constructed as mid-rise buildings and provide a full range of amenities, including restaurants, lounges, meeting and banquet rooms, swimming pools (indoor and outdoor), health and fitness clubs, tennis courts, and a jogging track. Parking is generally free and readily available. Developing a suburban hotel is generally less expensive than developing a comparable center city property.

Convention Center

As the number of convention centers throughout the United States has grown, so has the number of convention center hotels constructed in conjunction with convention facilities. Some of these hotels are physically attached to a convention center, while others are in close proximity. These hotels generally capture a significant portion of the room nights generated by the conven-

tion center, but it must be recognized that even the best convention centers are only used for approximately half the year. This statistic can be easily verified. Assuming that a typical, four-day convention takes two days to set up and two days to dismantle, the facilities are really only in use 50% of the time, or 180 days per year. If this is the maximum potential utilization and slow periods are experienced in summer and during holiday periods, it is easy to see why convention facilities are not consistent generators of lodging demand.

Resort

Leisure travelers go to resorts during vacations and other free time to relax and have fun. Resort locations often offer one or more special recreational attractions such as water sports, winter activities, unique entertainment, scenic beauty, or a historic experience. Many resort locations also attract leisure-oriented meeting and group demand, but most are not frequented by commercial travelers. Immediate site access and visibility are often unimportant and can actually be detrimental to a resort location. Area access can be criti-

cal, however, particularly for remote locations. Other factors that can affect the desirability of resort locations are: climate (especially adverse periods such as hurricane season in the Caribbean), perceived safety and guest comfort, political stability (in foreign countries), and distance and travel time from the point of origination to the resort destination.

Hotel Chains

Every year the American Hotel and Motel Association compiles a directory of hotel-Motel chains. A chain is defined as any group of three or more hotels, motels, or resorts operated under a common name or by a single owner or operator. Generally a hotel chain is equated with a recognizable name such as Marriott, Holiday Inn, or Super 8 rather than an independent hotel with no brand-name affiliation. Over the past 20 years, chain affiliation has become increasingly prevalent in the hotel industry. Whereas 35% of all hotels were chain-affiliated in 1970, the current ratio is estimated to be in the range of 80%. The rapid growth of hotel chains over the last three decades can be at-

tributed to three factors: franchising, management contracts, and internal expansion.

Table 4.19 identifies the top 50 hotel chains as of 1999, based on the total number of branded rooms. The identified hotel chains operate under recognized trade names. Trade names are used by individual lodging facilities in one of three ways. First, a hotel may actually be owned by the hotel chain. For example, all Red Roof Inns and Motel 6 hotels are owned by the chain; they do not franchise or operate under management contracts. Second, a hotel may be owned by an independent owner who uses the trade name under a franchise arrangement with the hotel chain. Third, a hotel may be owned by an independent owner and managed by the hotel chain, which provides management service and the trade name identification. Most hotels in the United States are operated under a franchise arrangement. Some use the chain's management services, but very few hotels are actually owned by the lodging chain. Since chain affiliation can have a direct impact on a hotel's value, appraisers should be familiar with hotel franchising and management contracts.

Franchising

A franchise is an agreement between a hotel-motel company (usually a national or regional chain) and an independent hotel owner in which the owner pays a fee to use the name, trademarks, and various services offered by the chain. A franchise creates certain benefits and costs for both the owner and the chain.

Benefits to the Owner (Franchisee)

Instant identity, recognition, and image. Every chain has its own image, which indicates its price level (economy, standard, or luxury) and market (leisure, commercial, or convention). To have a positive effect, the franchise image must conform to the facilities offered and the available market.

Reservation or referral service. Most franchises have some type of centralized reservation system that enables guests to reserve a room by calling a toll-free number. Most of the chains offer computerized services; others have teletype and phone connections with individual properties. A good reservation system generates approximately 15% to 30% of a property's occupancy.

Chain advertising and sales. All major franchises publish a directory in which each property is briefly described and location and rate information are provided. The extent of media advertising and actual sales solicitation varies from chain to chain. In most cases the business generated through the reservation system and national or regional promotions cannot support an individual hotel. Sales efforts on a local level are also necessary.

Procedures manual. Chains urge all their properties to follow standardized systems and procedures. Operating manuals are provided, and each affiliated facility is inspected periodically to ensure that policies and standards are being observed. Some chains have training schools to instruct management on basic operational techniques.

Management assistance. Most chains can provide franchises with specialized assistance in the various aspects of hotel-motel development and management such as planning, operations, and marketing. These services generally are not covered by the normal franchise fee and are contracted for separately.

Group purchasing. Chains require that affiliated properties use certain identity items such as ashtrays, monogrammed towels, silverware, china, and uniforms. They offer group purchasing programs that reduce the cost of these items to owners.

Costs to Owner

Hotel franchise fees are the compensation paid to the franchisor for the use of the chain's name, logo, identity, image, good will, procedures and controls, marketing, and referral and reservation systems. Franchise fees normally include an initial fee

with the franchise application, plus continuing fees paid periodically throughout the term of the agreement.

The initial fee typically takes the form of a minimum dollar amount based on a hotel's room count. For example, the initial fee may be a minimum of \$45,000 plus \$300 per room for each room over 150. Thus, a hotel with 125 rooms would pay \$45,000 and a hotel with 200 rooms would pay \$60,000. The initial fee is paid upon submission of the franchise application. This amount covers the franchisor's cost of processing the application, reviewing the site, assessing market potential, evaluating the plans or existing layout, inspecting the property during construction, and providing services during the pre-opening or conversion phases.

If the hotel is existing and the franchise represents a conversion, the initial fee structure is occasionally reduced. Some franchisors will return the initial fee if the franchise is not approved, while others will keep a portion (5% to 10%) to cover the cost of reviewing the application.

Converting the affiliation of an existing hotel may require the purchase of towels, brochures, operating supplies, and paper items imprinted with the national franchi-

sor's logos. The potential affiliate may have to undertake a property refurbishment or renovation (ranging from installing a higher grade of carpeting to enclosing a property's exterior corridors). Both new franchises and converting franchises will also have to pay the cost of signage. Although these potential costs are not quantified in our analysis, they must be considered when measuring the costs and benefits of affiliation. Requirements of this kind will vary from hotel to hotel and among various franchise organizations.

Continuing Fees

Payment of continuing franchise fees commences when the hotel assumes the new franchise affiliation; the fees are paid monthly over the term of the agreement.

Continuing fees generally include a royalty fee, an advertising or marketing contribution fee, and a reservation fee. In addition, continuing fees may include a frequent traveler program and other miscellaneous fees. The continuing fees we analyzed are broken down as follows.

Royalty Fee: Almost all franchisors collect a royalty fee, which represents compensation for the use of the chain's trade name, service marks and associated logos, good will, and other franchise services. A significant profit is generally factored into this fee.

Advertising or Marketing Contribution Fee: Chainwide advertising and marketing consists of national or regional advertising in various types of media, the development and distribution of a chain directory, and marketing geared toward specific groups and segments. In many instances, the advertising or marketing fee goes into a fund that is administered by the franchisor on behalf of all members of the chain. These dollars must be used to promote the chain, and normally do not represent a source of profit to the franchisor.

Reservation Fee: If the franchise chain has a reservation system, the reservation fee supports the cost of operating and paying for the central office, telephones, computers, and reservation personnel. The reservation fee is designed to cover the cost of the reservation system, and (like advertising and marketing fees) generally provides little profit to the franchisor.

Frequent Traveler Program: Some franchisors maintain incentive programs that reward guests for frequent stays; these programs are designed to encourage loyalty to the chain. The cost of administering the program is financed by a frequent traveler assessment.

Other Miscellaneous Fees: Some of these fees, which include fees payable to the franchisor for additional systems or procedures, such as required training programs, travel agent commissions and global distribution system (GDS) fees, are generally minimal and often do not generate a profit. For the first time in our study, we have also included in other miscellaneous fees the cost of any computer hardware and software, software and computer hardware and software maintenance that a franchise requires. Technology is becoming more prevalent and franchisors are requiring more in the way of computer systems; hence, we thought it was important to reflect these potential costs.

Sometimes the franchisor offers additional services for a fee. These services may include any of the following: consulting, purchasing assistance, computer equipment or satellite communication equipment rental, optional training programs, on-site opening assistance, or additional advertising services. The fees for these services are typically not qualified in the disclosure documents. Our analysis considers only those costs that are mandatory and are quantified by the franchisor.

Calculation of Continuing Franchise Fees

The assessment of continuing franchise fees is based on several different formulas. In general, royalty fees are calculated on a percentage of rooms revenue. Typically, the royalties range from 2.0% to 6.5%. Advertising, marketing, and training fees are usually calculated as a percentage of rooms revenue, and typically range from 1.0% to 3.75%; however, the formula for calculating these fees may use a dollar amount per available room, per month.

Reservation fees may also be based on a percentage of rooms revenue (0.8% to 2.5%) or dollar amount per available room, per month (\$3.00 to \$8.65), or in some cases, the reservation fee is based on an amount for each reservation that is sent to the property through the central reservation system (\$1.00 to \$11.00). Some franchisors use a combination of two or all three of these methods to calculate reservation fees.

Frequent traveler program assessments are typically based on a percentage of total or rooms-only revenues (0.3% to 5%) generated by a program member staying at a hotel, or a fixed dollar amount (\$1.25 to \$15.00) for each room occupied by a program member. Many programs also require hotels to contribute a one-time participation fee of approximately \$10.00 per guestroom, while others use a combination

of all three methods. In determining the frequent traveler program fees we have not considered any costs associated with the granting of frequent flyer miles.

For the most part, these various fee formulas are applied individually, but in some cases, franchisors combine a number of formulas (e.g., a marketing fee that might be the greater of \$0.50 per available room per day or 2.0% of rooms revenue). Many also have first-month contingency fees in lieu of recorded revenues (e.g., a royalty fee of \$24.00 per room for the first month and then 5% of gross revenues in the ensuing months).

Each fee structure offers advantages and disadvantages for the individual property. A fee based entirely on a percentage of rooms revenue is favorable for hotels that derive significant income from food and beverage sales. Fees based on an amount per available room are fixed, and tend to benefit high volume-hotels and penalize properties with lower operating results. Paying a reservation fee based on the number of reservations received is equitable, as long as the reservations equate to occupied room nights and not to no-shows.

Analysis of Franchise Fees

To provide a comparison of hotel franchise fees, HVS International periodically researches hotel franchise fees from information presented in the Uniform Franchising Offering Circular (UFOC) documents prepared by the respective franchisors. Tables 4.21, 4.22, and 4.23 assume a different class of lodging facility (i.e., level of quality), so that comparisons can be made between chains of a similar class. The economy chains include chains that are classified as economy chains by Smith Travel Research. The mid-rate chains include chains that are classified as mid-scale chains with and without food and beverage by Smith Travel Research. The first-class chains include chains that are classified as upscale or upper upscale chains by Smith Travel Research. Table 4.20 summarizes the assumptions incorporated in Tables 4.21, 4.22, and 4.23.

The HVS International model assumes that each affiliation is capable of generating the same portion of occupancy from its reservation system. In actuality, some affiliations generate more demand and some contribute less.

Tables 4.21, 4.22, and 4.23 summarize the franchise fee information relating to each franchise affiliation. The first column lists the franchisor name. The second column shows the initial fee based on the room count assumed for each class of facility. The

next five columns outline the continuing fees, which are divided into royalty, reservation, marketing, frequent traveler program, and miscellaneous cost. The continuing fees were calculated on an annual basis and represent the total amount that would be paid by the franchisee over the ten-year projection period. The next column illustrates the sum of the initial and continuing fees. The final column shows the percentage relationship between the total projected franchise fees and the total projected rooms revenue.

A total of 73 franchise groups, including 27 economy, 24 mid-rate, and 22 first-class franchisors, participated in the analysis. The trend towards continued franchise expansion and segmentation was exhibited by a 14.1% increase in the number of study participants from 1996 to 1998. The Budget Host organization led the latest analysis, with only 0.8% of its projected ten-year revenue going toward expenses related to franchise fees. Other organizations achieving low percentages included Best Western at 1.8%, Scottish Inns at 4.8%, and Candlewood at 5.1%. Study results showed that the percent of rooms revenue figures ranged from 0.8% to 10.3% in the economy category, 1.8% to 10.4% in the mid-rate category, and 7.1% to 11.4% in the first-class category. Low percentage leaders in each category were Budget Host, Best Western, and Omni, respectively. The overall range was a low of 0.8% to a high of 11.4%, with a median of 8.8%.

Some of the lower franchise fee percentages belong to chains such as Budget Host and Best Western; technically, these represent associations or referral organizations rather than franchises. These groups are structured for the benefit of their member hotels, so fees are oriented more toward covering operating costs rather than producing large profits. Consequently, their percentages are somewhat representative of the actual cost of operating a franchise organization and provide an indication of the margin of profit realized by other chains.

As shown in the tables, a Marriott affiliation is still the most expensive, and in 1998, this was the only franchisor whose royalty fees were based on a percentage of the combined rooms and food and beverage revenues. Marriott's frequent traveler award program also contributes to the above-average cost of this affiliation. However, few would argue with the success of Marriott's proven operating abilities, as well as their favorable customer image and good will. There is often a direct relationship between a hotel's good will and potential for asset value enhancement. Thus, although affiliating with this type of franchisor may well prove feasible and prudent, it will be comparatively costly.

In 1998, a total of 30 franchisors offered frequent traveler programs that involved costs to the franchisee, up from 16 in 1996, 13 in 1994, and 7 in 1991. This represents an increase of 329% from 1991 to 1998. This increase can be attributed, in part, to franchisors segmenting their franchise offering into different property types, including suite and extended-stay hotels.

Long-Term Strategies

Tables 4.24, 4.25, and 4.26 compare the results of the past five HVS International franchise fee studies.

As mentioned earlier, the trend toward continued franchise expansion and segmentation was exhibited by a 14.1% increase in the number of 1998 study participants. In 1996, 64 franchises were included in the study, as compared to 57 in 1994, 51 in 1991, and 37 in the original 1989 study. There has been a 97% net increase in study participation since 1989.

Nine economy, thirteen mid-rate, and seven first-class franchises participated in all four studies. Throughout all five studies, Scottish Inns in the economy segment, Best Western in the mid-rate segment, and Omni in the first-class segment maintained

the lowest overall average percent of rooms revenue at 4.0%, 1.6%, and 6.8% respectively. Days Inn logged the five-study average high, at 9.0%.

The overall franchise class average showed steady growth over the course of the five studies; however, some of the cost increase in the 1998 study can be attributed to the inclusion of costs associated with required computer equipment and systems, as these costs were not included in the previous studies. The economy class maintained a five-study average of 6.3%, the mid-rate class carried a 7.0% average, and the first-class group had a five-study average of 7.6%. The economy group exhibited the lowest averages in all five studies, while the first-rate group logged the highest.

Liability of Owner

In granting a franchise a chain offers no guarantee or financial commitment to the success of the property. Should the property fail, the chain can immediately withdraw its franchise and demand that all forms of identity be removed. The owner assumes all financial liabilities.

Benefits to Chain (Franchisor)

Inexpensive, low-risk expansion. Franchising allows hotel chains to expand their operations with minimal capital and personnel investment. Increased representation improves the chain's recognition, which tends to increase occupancies. The cash flow from franchise fees and royalties is attractive to publicly held companies.

Allied expansion. Several chains have developed allied businesses to support their franchises and company-owned operations. These businesses include interior designers, building contractors, furniture equipment and supply dealers, travel agencies, and tour packagers.

Costs to Chain

Franchise services. Chains must provide the services described in the franchise agreement. Maintaining the reservation system and advertising the chain comprise the bulk of their responsibility.

Quality control. Inspection, supervision, and enforcement of franchise procedures and standards are essential. One neglected property can harm the reputation of the entire chain. The need for strict quality control has led some chains to abandon their franchise programs because they found it impossible to enforce operational standards.

From a valuation standpoint, a franchise is neither a requirement nor a guarantee of success. A franchise well-suited to the local market demand can provide a competitive advantage over independent properties and those with less desirable affiliations. Naturally, any competitive advantage enhances the business value of a property.

It is important to remember that franchises are not permanent and are commonly terminated when the property is sold. New owners must apply for and be granted a new franchise, which could require that an outdated hotel be brought up to current chain standards. It may cost several hundred thousand dollars to maintain a franchise affiliation; the appraiser must be sure to consider this factor in determining a property's present value.

Management Contracts

A management contract is an agreement between a management company (operator) and a property owner (investor) whereby the operator assumes complete responsibility for managing the hotel. For this service the operator is paid a fee based on a prescribed formula. The owner has little say in operational policies, procedures, and day-to-day management, but he or she is financially responsible for the property and must replenish operating capital if necessary. The difference between a management contract and a lease is that under a management contract the residual income (or loss) after payment of all expenses, including the management fee, goes to the owner; in a lease ar-

arrangement the residual income (or loss) after payment of rent goes to the tenant, or operator.

A hotel management company can be classified as either a first-tier management company or a second-tier management company depending on the types of services they offer.

A first-tier management company operates lodging facilities for third parties under a management contract and provides two types of services: 1) day-to-day operational supervision and property management, and 2) national or regional customer recognition through affiliation with a chain. Marriott, Hilton, and Hyatt are examples of first-tier management companies.

A second-tier management company, which also operates lodging facilities for third parties under a management contract, provides day-to-day operational supervision and property management but offers no trade name customer recognition. Second-tier management companies often use hotel fran-

chises for identification. Examples of second-tier management companies include MeriStar Hotels & Resorts, Lodgian, Richfield Hospitality Services, and Ocean Hospitalities.

Hotel management contracts offer both benefits and costs to the property owner (investor) and the management company.

Benefits to Investor

Professional management. Management contracts allow an inexperienced investor to participate in the benefits of hotel ownership without becoming involved in day-to-day management. Management companies offer professional talent, proven methods of operation, and relief from most of the operational burden. An owner who contracts with a first-tier management company benefits from the chain's image, reservation system, and advertising programs.

Profitable affiliation. Some chains do not franchise, so the only way an owner can obtain the benefits of a potentially profitable affiliation with such a chain is through a management contract with a first-tier management company.

Borrowing power and possible operator investment. Many lenders are more willing to make loans on hotels that are managed by reputable management companies, rather than by individual operators. Occasionally a management company will pay to obtain a particularly desirable contract. They may invest initial working capital, inventories, or furniture, fixtures, and equipment.

Costs to Investor

Management fees. Unlike a franchise fee, the individual investor and operator typically negotiate management fees. These fees may be influenced by projected operating results, the expected ratio of food and beverage volume to rooms revenue, the services offered by the operator, the financial investment of the operator, and the property's desirability. The fee for management con-

tracts is generally structured in one of three ways: 1) a percentage of a defined gross revenue (usually 2%-6%); 2) a percentage of a defined gross as a basic fee, plus a percentage of a defined operating income as an incentive fee (usually 1%-4% of the gross and 5%-10% of the net); 3) a percentage of a defined operating income (usually 10%-25%).

From the investor's point of view, a fee structure based on a percentage of the hotel's operating profit is more desirable than one based on a percentage of gross revenue. Because the investor receives only the residual income after all expenses have been paid, a fee structure that provides an incentive to maximize revenue and minimize costs is a logical choice.

Required facilities and standards. Management companies require that the properties they operate meet certain physical specifications pertaining to size, layout, design, and decor. Operators actively participate in the planning of new hotels and the renovation of existing ones. The investor must provide sufficient funds to maintain the property properly and to replace short-lived items periodically.

Benefits to Operator

Inexpensive expansion with quality control. Like franchises, hotel chains can expand with a low capital investment and still keep quality under control with in-house management.

Good profit potential. Management contracts offer good potential for profit, especially with high-volume operations. Because the owner is responsible for all expenses, the financial risk to the operator is minimal.

Costs to Operator

Management services. In addition to providing the standard franchise services of a reservation system and chain advertising, the operator employs a staff of

regional managers, supervisors, and specialists in food and beverage service, accounting, marketing, and engineering.

The quality of the management provided by a professional hotel company varies depending on the chain and on the individual property. The appraiser should thoroughly evaluate management's effectiveness to determine whether current operating results indicate competent supervision. The assumption of competent management is discussed in a subsequent section of this text.

Choice of Management

Using either a first-tier or second-tier hotel management company has certain advantages and disadvantages.

Advantages of a first-tier management company

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- Often less expensive than using a second-tier management company and a franchise affiliation.
 - Some chain affiliations are only available by management contracts (e.g., Four Seasons and Ritz Carlton).
 - Combines the operating company with the entity that carries the name recognition, which tends to produce more unified management.
 - Usually provides a larger, more effective convention and group sales infrastructure.

Disadvantages of a first-tier management company

- Sometimes not available for smaller properties.
- Less likely to manage distressed properties.
- Term of contract usually longer.
- Termination provisions often more difficult to obtain.
- More difficult to negotiate an owner-oriented management contract.

Advantages of a second-tier management company

- Easier to negotiate an owner-oriented management contract.
- Smaller management company likely to give a property more individual attention.
- More likely to manage unique hotels that are small or distressed or operating in specialized markets, secondary locations, or secondary cities.

Disadvantages of a second-tier management company

- Lenders less likely to approve financing.
- Perceived risk of company is higher.
- Can be more expensive when management fee is added to national franchise fee. (Some second-tier management companies attempt to negotiate a first-tier fee structure.)

Management Contract Provisions

Management Fees. As has historically been the case, the management fee paid to hotel companies typically consists of a two-tiered structure: a base fee and an incentive fee. The base fee is commonly defined as a percentage of gross revenues, while the incentive fee is tied to some profit criteria.

Historically (in the 1970s and 1980s), the base fee ranged from 3% to 5% of gross revenues and constituted the greater part of the compensation achieved by the operator. Incentive fees were typically defined as a percentage of defined net operating income. This amount was sometimes subordinated to debt service, but often subject also to accruals. In virtually all cases, the revenue derived from the base fee was significantly greater than the revenue derived from the incentive fee.

Common examples from this period include typical Marriott contracts that generally provided for a base fee of 3% of gross revenues plus an incentive fee of 20% of defined net income that, if deferred, was often subject to accruals. Typical Hyatt contracts dating from this period provided for a management fee equal to the greater of 5% of gross revenues or 20% of net income.

As this structure required the management company to achieve a net income level of 25% of gross revenues in order to have the incentive fee surpass the base fee, the incentive factor was somewhat limited.

Today, the emphasis has shifted from the base to the incentive fee. Base fees now ranged from 1.5% to 4% of gross revenues, with the most common range being 2% to 3%. With the higher base fees (3% and above), it is not uncommon for a portion of the base fee to be subordinated to debt service and/or some owner's priority whereby the operator receives a reduced management fee if certain objectives are not achieved. Incentive fees are now very deal-specific, as opposed to being based on a standardized formula. Common structures include a percentage of gross operating profit over a defined amount (hurdle), usually related to the historic or budgeted performance of the property. Depending on the threshold, these fees range from 10% to 25% of the defined amount. Moreover, incentive fees are virtually always subordinate to debt service and, in many cases, also to an owner's priority return. These amounts may be influential in determining the hurdle for the incentive fee to be earned. The strategy behind these structures is to align the operator

with the owner's position by exposing the operator to a similar level of risk as related to both the operation and the capital structure of the deal.

Termination Provisions. Termination provisions set forth the circumstances in which a management contract may be canceled, by either the owner or the operator. Termination provisions may be generally divided into two categories: those related to ownership of the hotel, and those that are "for cause." While there are many specific terms that may influence termination "for cause," the most common are related to the performance of the two parties in fulfilling their obligations under the contract.

Historically, the termination provisions in hotel management contracts were extremely limited and were related to the financial health of the parties to the contract. The most common opportunity for termination was the bankruptcy or other financial breach by one of the parties. With respect to termination upon the sale of the property, such provisions, when included, usually addressed the operator's right to terminate the contract upon the sale of the hotel; typically, the owner had no such right. Some contracts also provided the

owner with the right to terminate in the event that the operator did not perform to some standard. In some instances, the standard was defined on the basis of performance as compared to operating history or budget, or in terms of market share. However, more often these clauses were ill defined and difficult to enforce. One common cause was “failure to operate and maintain the hotel in a first-class manner,” or some similar vague language, which could result in years of dispute.

In management contracts that are currently being negotiated, the termination provision is often the most crucial clause. In some cases, the owner has the right to terminate the contract upon sale of the property, with minimal notice (30 to 60 days). This clause is of particular importance to the owner in terms of enhancing the salability of the hotel by enabling another hotel operator to bid on the property. In the early 1990s, many contracts (particularly those of the second-tier companies) also provided the owner the right to terminate with minimal notice, for no specific cause (i.e., without the sale of the property). Today, these latter provisions are tempered by buy-out clauses, whereby the owner may terminate the contract on short notice but must make a pay-

ment to the management company – generally, 0.5 to 3.0 times the management fee paid during the past 12 months.

Term of the Contract. The term of the contract refers to the time for which the contract will be in force. Included in this category are renewals of the initial term, which may be invoked at the behest of the owner or the operator.

Given the prevalence of termination provisions, the significance of the term of the contract has been somewhat undermined. During the recent past, some contracts were written with relatively short terms, ranging from one to five years, with no renewal provision. The majority of these were shorter (one to two years); some were actually month-to-month. This is in dramatic contrast to the long terms of 10 to 30 years, with as many as 50 years of renewal options, which historically prevailed.

The current standard has shifted away from the extreme short term, and now ranges from 3 to 10 years for second-tier operators and 10 to 20 years for first-

tier companies. Renewals are most commonly subject to negotiation within the year prior to the expiration of the original term. These more extended terms recognize the benefit of long-term, consistent management and are often seen as a way to “reward” the management company for good performance.

Other Contract Issues. The following issues are also subject to negotiation in hotel management contracts. The ranges and standards set forth represent the terms currently employed in today’s hotel management contracts:

- *Financial reporting requirements.* Monthly statements should be provided within 10 to 15 days. Annual budgets should be prepared for owner review and approval 60 days in advance.
- *Operator independence/owner control.* Owner should have right of approval of budget and any expenditures exceeding a defined amount (\$10,000 to \$20,000 depending on the size of the hotel).
- *Owner versus operator as employer of personnel.* This issue is generally dictated by the specific circumstances of the owner, as well as the structure of the

management company. Institutional owners typically require all employees to be personnel of the operator.

- *Allocation of home office expense.* The current standards indicate a wide range of fees charged under this heading. These charges typically include reservation fees, central marketing expense, charges for frequent guest programs, and possibly some accounting or computer use fees. Reservation fees are most often charged on a dollar-per-reservation transaction, which can include both the making of and the canceling of a reservation. These charges range from \$4.00 to \$6.00 per reservation. Central marketing fees typically range from 2% to 3% of revenue, and may be supplemented by the cost of participation in select (voluntary) marketing programs. The cost of frequent guest programs varies dramatically depending on the nature of the program and cannot be standardized. Similarly, the accounting and computer use fees vary from chain to chain; the latter are usually relatively minimal and depend on the sophistication of the management company's MIS systems.
- *Reserve for replacement.* This is one area where owners and operators are increasingly in agreement, as both parties recognize the necessity and importance of maintaining the asset in marketable condition. Although most contracts now provide a reserve for replacement equal to a minimum of 3% of

gross revenues, we have also seen 4% and 5% reserves with increasing frequency.

- *Capital contributions by the operator.* In today's highly competitive market for management contracts, a number of operators now assume an actual ownership position in the hotel. Thus, capital contributions may be seen as crucial to the successful attainment of a management contract.
- *Restrictive covenants concerning other hotels and contracts.* This issue is most important in the case of first-tier management companies, and generally depends on the likelihood that multiple hotels with the same brand will be located in a given market area. Restrictive covenants are still used, but the specific scope of the restriction is subject to negotiation based on market circumstances and the strength of the brand.

Internal Expansion

Some of the growth in hotel chains between 1970 and 2000 can be attributed to internal expansion. The availability of capital allowed many chains to construct new facilities and purchase existing properties. It is not uncommon for

a hotel chain to purchase hotels that are already operating under its franchise.

Future of Chains

Hotel-motel chains should continue to dominate the supply of transient accommodations; in fact, their market share is expected to increase. After economic recession in the early 1990s, a new wave of construction began to take shape in 1995 and has continued through 1999. Nearly all new hotel construction involves chain-affiliated projects, and a number of new brands have been introduced, most notably in the increasingly segmented extended-stay sector.

Independent Hotels and Motels

The number of nonaffiliated hotels and motels has been declining rapidly. Most of these properties are small "mom-and-pop" motels constructed during

the 1950s and 1960s which are now on the brink of functional and external obsolescence due to the proliferation of larger, more modern chain operations. New budget chains have hurt independent lodging facilities deeply. With the exception of a few isolated market areas in which independent hotels continue to predominate (e.g., Cape Cod, New Orleans' French Quarter), the national lodging market is dominated by chain-affiliated hotels.

The major problem facing most independent hostelrys is the lack of identity. Travelers usually prefer a known product that offers services, accommodations, and rates within an expected range. An independent can, however, create its own identity with a massive advertising campaign, a highly visible and convenient location, a large number of repeat customers, or facilities and services of superior quality.

When valuing an independent hotel or motel, the appraiser should be aware of the risk factors involved. Unless circumstances clearly indicate that the independent can overcome the competitive disadvantages, the market will

usually reflect either a lower stabilized net income or a higher capitalization rate for an independent hotel property.

Micro Supply

Another term for the micro supply of hotels and motels is competition. The previous section described how to classify lodging accommodations by the type of facilities offered (e.g., commercial, convention, resort, suite, extended stay), the class (e.g., luxury, first-class, mid-rate, economy) and the location (e.g., highway, downtown, airport, resort). Compiling this information on all the hotels within the local market area allows the appraiser to identify the primary and secondary competition and evaluate the relative competitiveness of each property. These tasks are fundamental to the build-up approach based on the analysis of lodging activity.

The appraiser's next step is to determine the future guest room supply considering both the addition of new properties into the market and the removal

of existing rooms. From this information the total room nights available can be projected. The accommodatable latent demand and the total usable latent demand is then calculated to project annual area-wide occupancy.

The last step in the market analysis phase of the appraisal is to evaluate the relative competitiveness of all the hotels within the market area. This evaluation will form a basis for projecting the future market share of the subject property. Once the market share has been determined, the number of room nights captured and the resulting projected occupancy can be calculated.

Total Guestroom Supply

The total guestroom supply consists of the existing area hotels (primary and secondary competition), which were previously identified in the build-up approach based on an analysis of lodging activity, plus any facilities currently under construction and proposed projects likely to be completed. Infor-

mation on the room counts of existing hotels and those under construction is fairly simple to obtain.

Since most proposed hotels are never actually developed, it may be difficult to pinpoint projects that have a reasonable probability of reaching fruition. Good sources of information about proposed hotels include the local building department, development agencies, the chamber of commerce, local hotel associations, newspapers, American Hotel and Motel Association development reports, developers, hotel managers, real estate brokers, lenders, and other appraisers. In addition, construction industry consultant F.W. Dodge can be commissioned to produce standard and customized reports detailing hotel developments in a particular area. They may be reached at 1-800-FWDODGE, or on line at www.fwdodge.com.

The key issue in evaluating a proposed hotel is determining whether the project will ultimately be developed. The following list of criteria can assist in answering this question.

-
- Does the developer have all necessary zoning approvals, building permits and licenses? These approvals must be obtained before construction can begin. A project planned for a jurisdiction with restrictive development policies has less chance of reaching the development stage.
 - Is the project financing in place? The entire financing package, including both debt and equity capital, must be fully committed and in place before a proposed hotel is considered definite. Hotel financing has always been difficult to secure and most of the projects that are discontinued during the development process fail because they lack some form of financing.
 - Does the project have a franchise and/or management company commitment (contractually obligated)? Sophisticated lenders generally require a franchise affiliation and an experienced operator before committing to finance a project. In markets where appropriate identification is unavailable, the development probability is reduced.
 - Does the developer have a track record of successful hotel projects? Most first time developers fail to complete their contemplated hotel projects. Lenders are often reluctant to finance inexperienced hotel developers.

- What is the current supply and demand situation in the local hotel market? If the lodging market is overbuilt or suffering from decreased demand, proposed hotel projects are generally reconsidered and either postponed or terminated. An appraiser should investigate the competitive environment several years into the future to determine the probable impact of definite additions to supply over the projection period. Should the anticipated area-wide occupancy drop below an acceptable level, it becomes more likely that some of the proposed hotel projects will be withdrawn.
- What is the current condition of the hotel financing market? Over the past 40 years, the availability of hotel financing has followed a cyclical trend. Since very few hotel projects are developed without some form of financing, a downward trend in the availability of debt and/or equity money will usually curtail many proposed projects.

Using these criteria the appraiser evaluates each proposed hotel within the market area and determines whether the project should be considered a definite addition to the future lodging supply or should be disregarded as unlikely to be built. A third alternative would be to assign a probability factor to the project based on its chance of being developed. Using the criteria set forth

above, the project can be considered a future addition to the competitive supply, but its room count would be weighted to reflect its development probability. For example, assume that a 200-room hotel is planned for a site within a given market area. Based on the preceding development criteria and discussions with the building department and developer, the appraiser estimates that there is a 50% chance that this project will be built. When projecting the competitive supply, the appraiser would include this project, but apply a 50% probability factor and consider it a 100-room hotel rather than a 200-room hotel.

The total guestroom supply is estimated for each projection year by totaling the existing supply of hotel rooms. Actual room counts are used for those hotels considered primary competition and appropriately weighted room counts are used for properties considered secondarily competitive. To this existing supply are added any new rooms currently under construction and rooms in proposed hotels that are likely to be completed. If a hotel that is under construction or proposed is expected to open at some point during one of the projection years, its room count is weighted for that year based on the ra-

tio of 12 minus the month opened divided by 12. If a hotel will be removed from the market during the projection period, its room count is deducted after it is appropriately weighted for the number of rooms available.

Total Room Nights Available

The total room nights available is quantified by multiplying the total guestroom supply for each projection year by 365.

Total Accommodatable Latent Demand

If the appraiser projects any type of latent demand, a calculation should be made to determine what portion of the latent demand can be accommodated by the new additions to the guestroom supply. Accommodatable latent demand is calculated for each projection year by multiplying the number of new hotel rooms that have opened since the base year by 365. This calculation indicates the number of new rooms available per year, which is then

multiplied by the estimated area-wide occupancy for that year. The portion of the latent demand that cannot be accommodated by the new rooms entering the market is known as the unaccommodatable latent demand and is calculated as follows:

$$\text{Latent demand} - \text{accommodatable latent demand} = \\ \text{unaccommodatable latent demand}$$

Since the supply of hotel rooms is insufficient to accommodate the unaccommodatable latent demand, the unaccommodatable latent demand must be deducted from the previously calculated total demand to produce an accurate estimate of occupancy and total usable demand. The unaccommodatable latent demand is allocated to each market segment based on the percentage relationship between each segment's latent demand and the market's total latent demand.

Total Usable Latent Demand

The total usable latent demand for any given projection year is either the total latent demand or the total accommodatable latent demand, whichever is less.

The following case study illustrates quantification of the area's total guestroom supply, the total room nights available, the area occupancy, the accommodatable latent demand, and the total usable latent demand.

CASE STUDY

Total Guestroom Supply

In addition to the 250-room subject Sheraton Hotel, which is expected to open on January 1st of the third projection year, a 140-room Best Western Hotel is scheduled to open on October 1st of the first projection year, and a 200-room Marriott Suites is scheduled to open on January 1st of the second pro-

jection year. Financing for both of these projects has been secured, and the likelihood of their completion appears to be very high. In addition, each of these hotels is expected to enter the market at 100% competitiveness.

Rumors have spread that Hyatt is interested in developing a 300-room convention hotel within the subject market. A site has not been selected and suitable zoning would be difficult to obtain because of a local water moratorium. At this preliminary stage, the development is highly speculative; even if a site and approvals could be obtained, this property would probably not enter the market for six to eight years. For these reasons, a new Hyatt is not included in this supply analysis. Table C.S.4.1 shows the projected guestroom supply for the market area.

Total Rooms Available

During the base year, the total existing supply (HARC) equated to 1,962 rooms. Along with accounting for the new hotels, our analysis also reflects the impact of the Courtyard by Marriott's partial year of operation in the base year. This 124-room hotel opened on July 1st of the base year, thus its room

count for the base year was pro-rated to 62. The remaining 62 rooms must be factored into the analysis as of the first projection year. In addition, only 35 of the Best Western's 140 rooms are allocated to the first projection year, reflecting that hotel's projected opening on October 1st. Pro-rating the 140 rooms to account for three months of operation ($140 \times 25\%$) render the year one allocation of 35 rooms. In the second projection year, the Best Western is open for the full year, which effectively adds another 105 rooms to the market.

Once the total number of rooms has been quantified, this figure may be multiplied by 365 in order to generate the market's total room nights available per year

Unadjusted and Adjusted Market-wide Occupancy

Before the market-wide occupancy can be properly calculated, the accommodatable latent demand and the total usable latent demand must first be determined. Table C.S.4.2 begins by presenting an unadjusted forecast of market-wide occupancy, using the room night demand levels developed in

the previous chapter, and the room night supply levels identified above. As indicated, an unadjusted market-wide occupancy rate of 76.8% is calculated for the base year, followed by 75.9% in the first projection year.

Since the market-wide occupancy projection for each year contains latent demand, this occupancy figures may be overstated because latent demand cannot be accommodated until new rooms are added to the market. Further calculations are needed to determine the actual market-wide occupancy based on total usable latent demand.

During the base year, the accommodatable latent demand is always zero. As a result, all of the latent demand is considered unaccommodatable latent demand, and the total usable latent demand is zero. Only after new inventory enters the market can latent demand begin to be realized as accommodatable demand. Table C.S.4.2 identifies the quantity of new rooms that is scheduled to enter the subject lodging market. In the first projection year, a total of 97 new rooms will enter the market, offering a total of 35,405 room nights per year (97 rooms x 365 nights/year). This new supply component is then multiplied by the unadjusted market-wide occupancy rate (75.9%) in

order to calculate the share of rooms that could logically be expected to accommodate latent demand. The result, in the first projection year, is 26,856 (35,405 x 75.9%) accommodatable room nights. In the successive years, the new inventory component is calculated on a rolling basis, as opposed to incrementally.

In order to test the extent to which the latent demand is usable, the latent demand is compared to the accommodatable room nights allocated to the new supply. In the first projection year, latent demand amounts to 34,297 room nights, exceeding the accommodatable room nights of 26,856 by 7,441 room nights. The 7,441 room nights represent unaccommodatable demand. From the second projection year forward, the new inventory features far more capacity than the available latent demand. As such unaccommodatable demand drops to zero for the remainder of the projection period.

Once the overall unaccommodatable demand figures have been quantified for the base year and each projection year, this total must be allocated to each specific demand segment. The bottom half of Table C.S.4.2 is devoted to this methodology. The allocation ratio is figured by calculating the share of latent

demand generated by each segment for each year. Table C.S.4.3 identifies this process. Based on the calculated allocation ratios, the amount of base year unaccommodatable demand is estimated as follows: 24,184 room nights in the commercial segment; 5,767 room nights in the meeting and group segment; and 2,977 room nights in the leisure segment. Table C.S.4.4 identifies these calculations, while Table C.S.4.5 illustrates the calculation of the adjusted room night demand levels, by segment, for the base year. After adjustment, the base year market-wide occupancy rate equates to 72.2%, as illustrated in Table C.S.4.2. Tables C.S.4.6 and C.S.4.7 set forth the calculations associated with the adjustment of the year one projections. After adjustment, the year one market-wide occupancy rate equates to 74.9%.

The projected market-wide occupancy provides an indication of the future health of the local lodging market and a rough estimate of occupancy for any proposed lodging facility.

When projected area-wide occupancies are anticipated to fall below 55% to 60%, the normal breakeven point for hotels, the health of the local lodging market could be in jeopardy. In these situations the average hotel within a market is unable to generate sufficient cash flow to meet debt service, so competition generally intensifies and hotels reduce their rates to hold onto their market share. If the market does not recover within a short period of time, owners run out of loss reserves and hotels are taken back by lending institutions. These situations can sometimes be avoided by carefully considering the economic impact on both existing lodging facilities and any proposed hotels before recommending that a new hotel be developed in a seriously overbuilt market.

A rough estimate of occupancy can be developed for a proposed hotel using the following rules of thumb:

- A new hotel entering the market should achieve an occupancy rate in Year 1 that is 5% to 15% below the market-wide occupancy level.

- In its second year of operation a new hotel should achieve an occupancy rate that is approximately equal to the market-wide level.
- In Year 3 a new hotel should achieve an occupancy rate approximately 5% to 15% higher than the market-wide level.

As with all general rules, there are many exceptions, but this procedure provides a basis for a quick go or no go decision before proceeding to the next step in the analysis.

CASE STUDY

Market-wide Occupancy

The market-wide occupancy for the base year and each of the projection years is set forth in Table C.S.4.8.

Market-wide occupancy levels are expected to decline significantly beginning in the second projection year, as the new wave of inventory enters the market and absorbs all of the latent demand. Market-wide occupancy is expected to reach a low of 63.6% in year three, the year in which the proposed Sheraton is slated to open. Thereafter, as supply levels stabilize and demand continues to grow, market-wide occupancy levels are expected to improve and return to levels in excess of 70% by the sixth projection year.

Allocate Area Demand to All Competitive Hotels

Once the relationship between supply and demand has been quantified with the estimate of market-wide occupancy, all the competitive hotels are evaluated to quantify their relative competitiveness. Evaluating each hotel's competitive characteristics helps the appraiser fit any new properties into the market and calculate how much of the room night demand each hotel is likely to attract.

The percentage of the market captured by an individual lodging facility is called its *market share*; the market shares of all competing properties, including the subject, should total 100% for each market segment.

The allocation of the area's total room night demand among the lodging facilities in the area can be accomplished through an analysis of customer preference items or an analysis of penetration factors. Just as the two build-up approaches for quantifying an area's demand analyze the actual generators of transient visitation, and the demand indicated by all lodging activity, the two approaches for allocating the total demand to individual properties concentrate on the nature of the visitation and the characteristics of the lodging activity. Due to the similarities in these methodologies, demand allocation based on an analysis of customer preference items is generally used in conjunction with the build-up approach based on an analysis of demand generators, while demand allocation based on an analysis of penetration factors is usually applied in conjunction with the build-up approach based on an analysis of lodging activity.

Demand Allocation Based on an Analysis of Customer Preference Items

Demand allocation based on an analysis of customer preference items generally begins after the build-up approach based on an analysis of demand generators has been completed. Once the final market area is defined and the sources of transient visitation are identified, surveyed, and quantified, the procedure can be applied. The first step is to identify the area's competing lodging facilities by type and class. As described previously, hotels and motels can be categorized by type (commercial, convention, resort, etc.) and each type can be further divided into classes (luxury, standard, economy). Interviews with area hotel managers and a review of published room rate information can facilitate categorization.

The second step is to allocate the demand generated by each source of visitation among the subject property and the other area hotels based on

the characteristics of the demand and the relative competitiveness of the supply. This allocation is based on customer preference items.

Choosing a hotel or motel is actually a complex procedure. Several customer preference items influence the selection of a particular lodging facility. Hotel and motel patrons can be grouped into three categories based on the primary purpose of their trips.

1. Commercial - business travel, either alone or in groups of fewer than five.
2. Convention - gathering for groups, meetings, lectures, seminars, or trade shows.
3. Leisure - recreation, sightseeing, or visiting friends and relatives.

A further breakdown of each group reveals customers' reaction to room rates; economy accommodations will appeal to highly rate-conscious travelers, standard rates draw moderately rate-conscious customers, and

individuals who regard rates of little importance will choose luxury lodgings.

Combining the three customer categories with the three rate reactions produces nine types of guests (e.g., commercial-economy rate, convention-standard rate, leisure-luxury rate). Each customer preference item represents a specific characteristic guests consider in choosing one hotel over another. Six of the most prominent customer preference items are shown in Table 4.27.

Ranking the six customer preference items in order of importance establishes a basis for predicting how guests will choose among several lodging facilities in a particular market area. Table 4.28 ranks the preference items listed above.

For example, an economy-minded commercial traveler will drive farther (more travel time) to stay at a hotel that offers favorable prices. This same

traveler will probably select a property with good-quality facilities over a lower-quality hotel with more amenities. Similarly, a standard-rate leisure traveler places primary emphasis on a hotel's amenities and price, regarding travel time as less important.

A market share distribution can be constructed by carefully analyzing the preferences and characteristics of the typical transient traveler visiting the market area and matching these selection criteria with the competitive hotel-motel supply. Each competitive property should receive a portion of the overall market share; the size of the portion will depend on the property's relative competitiveness and its ability to attract a particular type of traveler. The sum of all the allocated market shares for each generator of demand should equal 100%.

The number of room nights captured by an individual property can be calculated by multiplying each generator's percentage market share allocated to the hotel by the total number of room nights quantified in the build-up approach based on an analysis of demand generators. The total

of all allocated room nights from all generators of demand is divided by the property's room count (multiplied by 365) to produce the estimate of occupancy. The following example illustrates how customer preference information can be used to allocate the room nights generated by a source of visitation among the subject property and all competing lodging facilities. Table 4.28 illustrates the importance of various hotel characteristics to different market segments.

Example. The subject property is a proposed nationally franchised, commercial motor hotel offering typical amenities at standard rates. There are three competing lodging facilities within the market area. Competition A is a luxury-rate, nationally franchised, commercial hotel with high-quality facilities and a good image. Competition B is a standard rate, nationally franchised, commercial motel with good-quality facilities. Competition C is an economy-rate, independent commercial motel with fair facilities.

The home office of a prominent national manufacturing company is one generator of transient visitation within the market area. Based on a sur-

vey of various department heads, an estimate of the firm's out-of-town visitation is developed as shown in Table 4.29.

The property being appraised will be built approximately eight travel minutes away from this source of visitation. The other properties are also nearby. Competition A is 15 minutes from the source of visitation, Competition B is 12 minutes away, and Competition C is 10 minutes away.

In allocating the room nights generated by this source of visitation, the appraiser assumes that most corporate executives will continue to travel the extra seven minutes to stay at Competition A because it offers the best image and quality. Some may use the new facility if Competition A is full or inclement weather or some other factor makes a closer location more desirable. The allocation of room nights based on customer preference items for this market segment is shown in Table 4.30.

Middle-management visitors will choose either the new property or Competition B. Because the property being appraised will be newer and four minutes closer, it may capture a sizable portion of this market. Competition B may respond by upgrading its facilities and/or lowering its rates. If differences in travel time are minimal, the quality of the facilities, price, image, and management could be deciding factors. The allocation of room nights for this market segment is shown in Table 4.31.

Economy-minded visiting salespeople will probably drive the extra two minutes to take advantage of the low rate offered by Competition C. Standard-rate salespeople, like the middle-management visitors, must choose between the new property and Competition B. The allocation of room nights for this market segment is shown in the Table 4.32.

The tables indicate that the total demand from this particular source of visitation allocated to the appraised property is 5,685 room nights: 185 room nights for corporate executives, 3,250 for middle management, and

2,250 for visiting salespeople. If the subject has 150 guest units, the 5,685 room nights would equate to approximately 10% of occupancy.

Quantifying the total demand generated by all sources of visitation and allocating the room nights between the subject and competing properties is accomplished using the procedure described above. The result is an estimate of occupancy, calculated as the total number of room nights allocated to the appraised property divided by the property's total available rooms per year:

$$\frac{\text{Total number of room nights}}{\text{Number of rooms} \times 365} = \text{Estimated occupancy}$$

Demand Allocation Based on an Analysis of Penetration Factors

Demand allocation based on an analysis of penetration factors is usually employed in conjunction with the build-up approach based on an analysis of lodging activity. The approach assumes that the accommodated room night demand for each competitive hotel has been determined and allocated among the appropriate market segments. To calculate new market shares for area hostels when another lodging facility is added to the market, a rating factor known as the penetration factor is used.

Penetration factors show how well each property in the market area competes for a particular market segment. The penetration factor is calculated by dividing a given hotel's market share by its fair share. Market share represents that portion of total demand accommodated by a given property. Fair share represents that portion of total supply accounted for by the same property. A 100-room hotel in a 1,000-room market has a fair share of 10%. If that same hotel accommodates 12% of the market's total demand, then its penetration factor is 120% ($12\%/10\%$). In other words, this hotel attracts 120% of its fair share of the market's demand. When a

new hotel enters the market, the projection of future penetration factors is somewhat complicated, and requires the use of a market share adjuster.

Example. Assume that the local market consists of three competitive lodging facilities with a total of 675 rooms. Hotel A has 300 rooms, therefore its fair share equates to 44.44% (300/675). Market research indicates that, over the past 12 months, Hotel A has operated at 80% occupancy; 50% of its total accommodated demand comes from the commercial segment of the market. The number of accommodated room nights per year in the commercial segment for Hotel A is calculated as follows:

$$300 \text{ rooms} \times 365 \text{ days} \times 0.80 \times 0.50 = 43,800 \text{ commercial room nights}$$

After doing similar calculations for the other hotels in the market, Hotels B and C, the total level of commercial demand is estimated at 83,836 room nights. As such, Hotel A's commercial segment market share equates to 52.24% (43,800/83,836). With known fair share and market share ratios,

Hotel A's commercial segment penetration factor can be calculated as follows:

$$\frac{52.24\%}{44.44\%} = 118\%$$

$$44.44\%$$

Commercial segment penetration factors for each of the hotels in the competitive market are presented in Table 4.33.

The penetration factors show that Hotel C is somewhat more competitive than Hotel A in the commercial segment, and that both Hotels A and C are significantly more competitive than Hotel B. As noted, Hotel A's fair share equates to 44.44%. If it were to capture its fair share of the commercial market, it would receive 44.44% of the demand, and have a penetration factor of 100%. Hotel C is the most competitive property for commercial demand, with a penetration factor of 126%. However, it has only

125 rooms, so it captures 23.27% of the commercial market, which is the smallest share noted among the three competitors.

Now, assume that Hotel D enters the market, adding 200 rooms to the total supply. Market research and analysis of its location, amenities, management, and other competitive characteristics indicate that Hotel D will be more competitive than Hotel B for commercial demand, but somewhat less competitive than Hotel A. The penetration factor for Hotel D should fall somewhere between 66% and 118%, but probably closer to 118%. It is also anticipated that Hotel D will become increasingly competitive during its first two years of operation. Therefore, based on market research and the appraiser's judgment, the penetration factor for Hotel D is estimated to be 97% in Year I and 105% in Year 2.

Because this new property has entered the market, the commercial demand must be reallocated among four hotels and the market shares and commercial room nights captured must be recalculated. In this process, note that penetration factors of the existing hotels are expected to remain

stable, and our projections also assume that the level of demand in the market remains fixed. Table 4.34 illustrates this procedure.

The fair share of each property is multiplied by its projected penetration factor to yield the market share adjuster. Each property's market share adjuster is then divided by the total of all the market share adjusters, rendering a revised market share. The market share adjuster re-establishes the market share factors for each property, which is necessary due to the projected opening of the new hotel. Note that Hotel A's market share declines from the historical level of 52.24% shown in Table 4.33 to 40.6% in Table 4.34. The decline is chiefly a function of the hotel's decreased fair share. When the market expanded by 200 rooms, Hotel A's fair share declined from 44.44% to 34.29%. Because the new hotel is expected to increase in the second projection year, Hotel A's market share declines further in that year, falling to 39.8%.

Because the opening of Hotel D is not expected to increase the actual number of commercial room nights accommodated within the market

area, the current demand of 83,836 must be reallocated among the four hotels.

The key to this example is the use of a market share adjuster in the calculation of a property's market share. This unique factor allows an analyst to compare many competitive aspects of a lodging establishment, regardless of the property's room count or changes in the overall supply of accommodations. The example assumes that the relative competitiveness of the original three hotels remains constant, while the new hotel becomes more competitive. This is generally the situation experienced by established lodging facilities operating at stabilized penetration levels. If market research indicates that any of these properties is becoming more or less competitive, however, its penetration factor can be modified upward or downward, as demonstrated in the case study.

The example illustrates demand allocation based on an analysis of penetration factors for the commercial market segment. The same procedure could be used to allocate meeting and group demand, leisure demand, or

any other quantifiable source of visitation within the market area. The ultimate result is a total room night estimate for the subject property, which can be converted into a projection of occupancy by dividing the total projected room nights by the number of available room nights. The results are shown in Table 4.35.

In practice, analysts generally use a combination of customer preference items and penetration factors to allocate room night demand among competitive lodging facilities. Both approaches call for judgments on a wide variety of competitive factors. Experience in hotel operations and analysis can prove invaluable in determining the most probable sequence of events.

CASE STUDY

Penetration Factors

The relative competitiveness of the existing area hotels will be compared using penetration factors. The penetration factors for each hotel in the market are calculated by dividing the properties' market share by their fair share in each market segment. Table C.S.4.9 summarizes the base year penetration factors for the hotels included in the market analysis.

Penetration factors must now be assigned to each new lodging facility as it enters the market. Moreover, if the relative competitiveness of any area hotel is expected to change, its penetration factors need to be adjusted. Assigning penetration factors to new properties or adjusting the factors of existing properties is largely judgmental; the factors of similar hotels operating within the market can be used as a basis for these judgments.

The following factors should be considered when assigning penetration factors:

- A new hotel generally becomes increasingly competitive in its initial years of operation, as it builds toward a stabilized occupancy rate.

- Factors that could alter the penetration factors of an existing hotel include:
 - 1) a major renovation or addition; 2) a change in management or franchise;
 - 3) a change in market orientation; and 4) growing levels of physical or functional obsolescence.
- Hotels with particularly high penetration factors in one market segment generally have a relatively low penetration factor in another.

After reviewing the various factors that affect the relative competitiveness of all the hotels within the market area, the following rationale was developed and used in projecting each hotel's penetration factors into the future.

The Embassy Suites opened four years ago and is therefore a relatively new product. It is commercially oriented and its competitive position in the market is strong and stable. The property is well located relative to the competition and demand generators. Its facilities are up-to-date and well maintained. Management operates the property in a competent manner and the Embassy Suites brand name is well recognized among frequent travelers. The market penetrations presently achieved by the Embassy Suites are expected to continue at similar levels into the future.

The Hilton Inn was constructed ten years ago as a convention-oriented hotel and is currently the largest hotel in the market. Its extensive meeting and banquet space, along with aggressive group marketing and skilled management, makes this property the most competitive product in the meeting and group market. With so much emphasis directed towards the meeting and group demand, the Hilton is the area's least competitive hotel in the commercial market. Essentially, most of the Hilton's commercial demand has been purposely displaced by meeting and group patronage. A recent renovation has brought this property up to first-class condition, and it should remain as the meeting and group leader into the future. The market penetration factors presently achieved by the Hilton Inn are expected to continue into the future.

The Radisson Hotel is a convention hotel that competes with the Hilton for group patronage. Constructed fourteen years ago, this property completed an extensive renovation approximately 18 months ago. The upgrade enabled the Radisson to maintain its competitive position. The square footage of its meeting space is somewhat less than the Hilton, making the property less attractive to large groups and banquets. Like the Hilton, the Radisson concen-

trates on group patronage, which displaces much of the commercial business that would normally be using the hotel Monday through Thursday. The market penetration levels presently achieved by the Radisson are expected to continue at similar levels into the future.

The Holiday Inn is one of the area's newer hotels; it opened five years ago. Its facilities include extensive recreational amenities. Like most Holiday Inns, this property benefits from a strong reservation system that draws a good mix of commercial, meeting and group, and leisure demand. The sports facilities are particularly attractive to weekend visitors who come to the property for various organized escape packages. The Holiday Inn also has some good quality meeting and banquet space, which attracts small groups and conferences. As with the group-oriented Radisson and Hilton, the meeting and group demand displaces some of the commercial patronage that would generally use the hotel during the week. The hotel is well maintained and operated by a competent management company. The market penetration levels presently achieved by the Holiday Inn are expected to continue at similar levels into the future.

The Courtyard by Marriott opened mid-way through the base year, and realized strong penetration factors immediately upon opening. The hotel demonstrated particular strength in the commercial and leisure markets. Its excellent location, strong management, and connection with the Marriott brand should make the Courtyard one of the occupancy leaders in the area. With only six months of operating history, the Courtyard has not yet achieved a stabilized level of competitiveness. Gains are expected in all three market segments. The market mix of the Courtyard is expected to be similar to that of the Embassy Suites (i.e., strong commercial, minimal meeting & convention, and good leisure). It should undercut the Embassy Suites in room rate, capturing the more price-sensitive travelers, particularly in the leisure market. On the other hand, the suite concept seems to be uniformly more competitive in the commercial segment. These factors should enable the Courtyard to be more competitive in the leisure segment, somewhat more competitive in the meeting and group segment and almost as competitive as the Embassy Suites in the commercial segment. Based on this analysis, the market penetration levels for the Courtyard by Marriott are set forth in Table C.S.4.10.

The Ramada Inn is a 17-year-old property that suffers from some deferred maintenance and a second-rate location in an older industrial park. It has a similar market orientation as the Holiday Inn, but does not capture as much meeting and group or leisure business. The neighborhood surrounding the Ramada consists of warehouses and industrial buildings, which is not conducive to either meeting or leisure demand. Ownership has renovated the property on a regular basis so its competitive position is not expected to deteriorate. The market penetration levels presently achieved by the Ramada Inn are expected to continue at similar levels into the future.

The Island Inn is the oldest hotel in the market, having been constructed twenty-five years ago. Frequent changes in ownership, along with indifferent management has adversely affected the operating results of this property over the past five years. The Island Inn was originally a Sheraton Inn, but lost its franchise four years ago. Without a national identification, reservation system, or sufficient revenue to maintain this property at an attractive level, it is likely that the Island Inn's competitive position will decline over the coming years. The market penetration levels presently achieved by the Island Inn are expected to decline in the future. Declines in competitiveness

are anticipated in all three market segments. Based on this analysis, the market penetration levels for the Island Inn are set forth in Table C.S.4.11.

The Quality Inn opened four years ago with immediate success. Its location next to a growing office complex and an established recreational theme park has enabled this property to capture an attractive mix of commercial and leisure patronage. Weekends and holiday periods are particularly strong for the Quality Inn, enabling it to achieve the area's highest market penetration in the leisure segment. Ownership is presently considering the addition of more meeting space, which currently is quite limited. Initial indications show, however, that the property has a good market mix and any increase in meeting and group usage would probably just displace commercial demand and ultimately lower the average room rate. The property is well maintained and in good physical condition. Its management is competent, especially in marketing to the leisure segment. The market penetration levels presently achieved by the Quality Inn are expected to continue at similar levels into the future.

The Days Hotel is a commercially oriented property that opened twelve years ago. Its convenient highway location enables this hotel to attract a sizable amount of weekend leisure demand along with a high level of commercial patronage. On the other hand, limited meeting space hinders the Days Hotel's performance in the meeting and group segments, but it does attract some rate-sensitive groups. The property has been well maintained and effectively managed. It benefits from a strong reservation system and moderate prices. The market penetration levels presently achieved by the Days Hotel are expected to continue at similar levels into the future.

The composition and competitiveness of the secondary competition is not expected to change over the projection period so the consolidated market penetration factors presently achieved by these properties should continue at the current levels into the future.

In addition to these existing hotels, three new hotels are expected to enter the competitive set over the near term.

The proposed Sheraton hotel is expected to open at the beginning of the third projection year. It will reportedly be designed as a convention-oriented hotel with approximately the same amount of meeting space as the Radisson Hotel. It plans to go after both the meeting and group and commercial segments in a manner that will maximize rooms revenue by not displacing as much of the higher-rated commercial demand with lower-priced meeting and group patronage. The new facilities offered by the Sheraton, along with its excellent location, should make it highly competitive in the local market. Its market penetration levels in all three segments are expected to stabilize at a level somewhat above those experienced by the Radisson. Based on this analysis, the market penetration factors projected for the proposed Sheraton hotel are set forth in Table C.S.4.12.

The Marriott Suites hotel will be the second Marriott product in the marketplace. It is expected to open at the beginning of the second projection year, and will cater to a more upscale traveler than the Courtyard and thereby achieve a higher average room rate. Plans call for limited meeting space similar to the Embassy Suites, but the property will have a more upscale overall décor. With a projected room rate somewhat higher than the Embassy Suites, the Marriott Suites should be slightly less competitive in the commer-

cial and leisure segments as far as occupancy is concerned. Marriott's strength in marketing to meeting planners is anticipated to make this property more competitive than the Embassy Suites in the meeting & convention segment. Based on this analysis, the market penetration factors projected for the Marriott Suites hotel are set forth in Table C.S.4.13:

The Best Western Hotel is expected to open in October of the first projection year. Its facilities will be oriented toward the rate-sensitive commercial traveler and weekend leisure patronage. Meeting space will be limited, so its competitiveness in this segment is anticipated to be minimal. The Best Western has building plans that look attractive, but the property will have an inferior location near the interstate. Based on this competitive analysis, the Best Western should be slightly less competitive than the nearby Days Hotel for highway-oriented leisure patrons. Its competitiveness in the commercial segment is expected to be just below the Quality Inn, which is also a new property with limited meeting space. The market penetration factors projected for the Best Western hotel are set forth in Table C.S.4.14.

Tables C.S.4.15 through C.S.4.17 show the penetration factors forecasted for each existing and new hotel, by market segment, over the projection period.

The penetration factors form the basis for calculating the market share of each hotel within the market. Once the market share is known, the number of room nights captured by each hotel can be projected, which then leads to an estimate of occupancy.

The process of converting the penetration factor projections into an occupancy forecast includes the following steps:

- Fair share calculations are performed to determine the fair share for each hotel in the market, over the projection period. Because the market-wide inventory commonly changes year to year due to the opening of new hotels, fair share levels generally shift over the projection period.
- For each hotel, the market penetration factor is multiplied by its appropriate fair share, resulting in a factor referred to as the market share adjuster. The market share adjuster is then divided by the total of all the market share adjusters for the

area's competitive hotels. This calculation results in each property's market share percentage. These calculations are performed separately for each segment, by year.

- The segmented market share percentages are then multiplied by the total market demand for each segment. This step produces the actual room nights captured by each hotel, in each market segment.
- The room nights captured by segment are summed to obtain the total room night capture for each hotel.
- Each property's occupancy rate is then determined by dividing the total room nights captured by the hotel's number of available rooms per year (room count x 365).

Table C.S.4.18 sets forth the fair share factors calculated for each of the hotels in the competitive market. Note that the sum of all the fair share factors always equates to 100.0%.

Table C.S.4.19 demonstrates the calculation of the market share adjuster associated with the Embassy Suites, by segment, for each projection year. The penetration factor is multiplied by the fair share factor to produce the market share adjuster.

In Tables C.S.4.20 through C.S.4.22, the market share adjusters for each segment, for each competitive hotel are set forth. Note that the sum of the market share adjusters is generally in the range of, but not equal to, 100.0%.

Table C.S.4.23 demonstrates how the Embassy Suites' market share adjusters are converted into market share percentages. In each segment, in each year, the Embassy Suites' market share adjuster is divided by the sum of all market share adjusters.

In Tables C.S.4.24 through C.S.4.26, the market share percentages for each segment, for each competitive hotel are set forth. In this portion of the analysis, the sum of the market share percentages is always 100.0%.

Room Nights Captured

The projected room nights captured by any hotel can be calculated by multiplying the hotel's market share percentage by the total room night demand for the corresponding segment. This process is repeated for each market segment and the results are totaled to yield the number of room nights captured.

CASE STUDY

Room Nights Captured

Table C.S.4.27 demonstrates how the market share percentages calculated for the Embassy Suites are converted into an estimate of room nights captured, by segment. In each year, by each segment, the Embassy Suites' market share ratio is applied to segmented market-wide demand levels.

In Tables C.S.4.28 through C.S.4.30, the segmented room night capture levels for each of the competitive hotels are set forth. In Table C.S.4.31, the segmented demand levels are summed and presented as a total room night capture.

In the case of the Embassy Suites, the occupancy rate is calculated in Table C.S.4.32. The total capture is divided by the number of room nights available per year. This table also identifies the demand segmentation and the overall penetration factor projected for the hotel. Demand segmentation calculations are based on the segmented demand forecast for the property. The overall penetration factor is calculated by dividing the overall market share by the hotel's fair share.

Table C.S.4.33 sets forth the same set of data and conclusions as Table C.S.4.32, although this table pertains to the projections for the proposed Sheraton Hotel. As indicated, the Sheraton is expected to realize an overall penetration factor of approximately 94% in its initial year of operation, improving to approximately 105% in its third year of operation. These penetra-

tion factors reflect a normal occupancy buildup for new properties like the proposed Sheraton.

Demand capture levels for each competitive hotel have been divided by their respective supply levels, rendering a forecast of occupancy over the projection period. The results are set forth in Table C.S.4.34.

Stabilized Occupancy

When projecting a property's room nights captured and occupancy rates into the future, the assumptions of continued growth and no new additions to the competitive supply will ultimately produce unreasonably high capture and occupancy levels. As a result, appraisers use the concept of a stabilized occupancy.

A property's stabilized occupancy level reflects the anticipated level of occupancy over its remaining economic life of the property, given any or all periods of buildup, plateau, and decline in its life cycle. The concept of stabilized occupancy excludes from consideration any abnormal relationship between supply and demand as well as any transitory or nonrecurring conditions, whether favorable or unfavorable' that may result in unusually high or low levels of occupancy. Although it is common for a hotel to operate at occupancies above its stabilized level for a period of time, it is equally possible that new competition and temporary downturns in the economy could force actual occupancy below stabilized occupancy.

Projections become more uncertain the further into the future they are made. The use of a single stabilized occupancy rate produces the same results as a forecast that attempts to reflect the inevitable upward and downward occupancy cycles that a typical lodging facility experiences. Furthermore, discounting future economic benefits tends to smooth out the cycle, providing additional support for using a stabilized level of occupancy.

For new hotels like the proposed Sheraton described in the case study, a two- to five-year buildup in occupancy is generally factored into the projection. Very few hotels stabilize in their initial year of operation. Since the initial years tend to generate operating losses, the build-up period must be included in the projection to illustrate the actual start-up cash requirements.

Many factors influence the selection of a stabilized level of occupancy.

The following list identifies several key considerations:

Market-Specific Considerations

- Market area demand trends
- Composition of local demand
- Supply and competitive trends
- Historic occupancy cycles

Property-Specific Considerations

- Location-specific factors
- Competitiveness
- Age
- Management and image
- Obsolescence

The nature of the local hotel demand is probably the best indicator to analyze in establishing a stabilized level of occupancy. Different types of travelers have different travel patterns (i.e., days of travel, length of stay, and seasonality), so the mix of visitor types within a given market will influence the area's overall level of occupancy.

For example, assume a market has a very strong business base, which generates a significant room night demand Monday through Thursday

nights. However, the local area has no leisure attractions, so very few people use local hotels and motels on Friday and Saturday nights. Some commercial demand is experienced Sunday night as business travelers try to get a head start on Monday's activities. Because of this occupancy pattern, the maximum market-wide occupancy would be approximately 67%, assuming near sellouts every Monday through Thursday. Table 4.36 illustrates how this maximum occupancy level was established.

Considering market conditions and the nature of the existing lodging demand, a stabilized occupancy rate higher than 67% could not be justified unless the property has competitive or physical attributes that enable it to capture more than its fair share of weekday demand as well as the existing weekend demand.

The historic occupancy cycles experienced in the market area also provide an indication of where the stabilized occupancy rate should fall. Table 4.37 shows the 20-year occupancy cycle of three different hypothetical cities.

Statistical data relating to the 20-year occupancy cycles are shown in Table 4.38.

The stabilized occupancy for each of these cities should approximate the average occupancy, which is generally the midpoint between the highest and lowest occupancy levels recorded during the 20-year period.

The following case study illustrates the estimation of stabilized occupancy.

CASE STUDY

Estimating Stabilized Occupancy

The end result of the supply and demand analysis is a yearly estimate of occupancy over a given period of time. The appraiser must now evaluate each yearly occupancy estimate and determine whether it is appropriate for use in the projection of income and expenses. This evaluation also includes determination of the subject's stabilized level of occupancy. Table C.S.4.35 shows the yearly occupancy projections for the market at large, the existing Embassy Suites, and the proposed Sheraton Hotel.

The occupancy for the market area peaks in the first projection year at 75% and declines to a low of approximately 64% in the third projection year. Thereafter, market-wide occupancy levels are expected to improve.

Projected occupancy levels for the Embassy Suites rise to 82% in the first projection year, then decline substantially to 70% in year three. Based on the Embassy Suites popular design and stable market presence, a stabilized occupancy rate of 72%, as realized in the fourth projection year, is considered to be appropriate. Table C.S.4.36 sets forth the projection of occupancy through the stabilized year for the Embassy Suites. For the proposed Sheraton, the new hotel may be expected to reach a stabilized level of operation as of its

third year of operation (the fifth projection year), when an occupancy rate of 71% is forecasted. Table C.S.4.37 sets forth the projection of occupancy through the stabilized year for the proposed Sheraton Hotel.

Average Rate Per Occupied Room

After occupancy has been estimated, the average rate per occupied room is needed to forecast a hotel's rooms revenue. Like occupancy, the projected average rate is derived through market analysis. The ability of a hotel to achieve a satisfactory average room rate can impact both its financial feasibility and its market value. Appraisers must understand the definition of average rate per occupied room, how is it estimated, and what factors can affect its future movement.

Definition

The average rate per occupied room is defined as the net rooms revenue derived from the sale of guest rooms divided by the number of paid rooms occupied. The Uniform System of Accounts for Hotels defines the components of this formula as follows:

- *Net rooms revenue* - Total rooms revenue less allowances.
- *Allowances* - Rebates and overcharges or revenue not known at the time of sale but adjusted at a subsequent date. Allowances may also include revenue foregone as a result of hotel promotions or complimentary services.
- *Paid rooms occupied* - Rooms occupied by hotel guests on a paid basis. It should be noted that the overall average rate per occupied room does not include any occupancy derived from complimentary rooms.

Since most hotels have many different rate categories depending on the size of the accommodations, view and location, age and condition, and types of travelers served, the average room rate represents the weighted average of all these rate categories. Several of the rate categories used by hotels are described below.

- *Rack rate* - An undiscounted room rate generally given to anyone who does not qualify or ask for a special discounted rate. The term is derived from the room rack, a front desk feature that is less common in the computer age. The room rack traditionally contained information about each room's rate, including the highest rate that can be charged for that particular accommodation. When a hotel is expected to be full during a certain period or a guest arrives without a reservation, the rack rate is generally the only rate available. The average room rate is always less than the rack rate.
- *Published rate* - The rate listed in directories and other publications. This rate is usually quoted as a range (i.e., single: \$70-\$100) and represents the various rack rates for specific types of accommodations. Published room rates usually set the upper limits of average rates. Average room rates tend to be closer to published rates for single rooms than for double rooms.
- *Commercial rate* - A discounted room rate available to certain commercial travelers. Some hotels will charge any commercial traveler a commercial rate upon request, while others offer it only to established accounts based on their projected usage of the hotel. Commercial rates often differ because they are individually negotiated between the commercial business and the hotel. Commercial rates are always below the rack and published rates and,

depending on the market mix, will often approximate the property's average room rate.

- *Contract rate* - A discounted room rate available to specific high-volume users such as airlines, convention groups, and bus tours. Contract rates are negotiated by the user and the hotel and often apply to a block of rooms that are reserved on an ongoing basis and paid for whether they are used or not. For example, an airline may contract for 35 rooms per night for a full year. Two crews may utilize these rooms in a 24-hour day, if scheduling permits, or they may not be used at all if a flight is delayed or canceled. Depending on the amount and timing of the usage, a contract rate may be heavily discounted and fall significantly below both the average rate and the commercial rate.

The mix of business it attracts in various rate categories affects the average room rate of a hotel. A hotel that caters to a large number of airline crews or convention groups will generally have a lower average room rate than a property used primarily by commercial travelers.

Hotels operators continually attempt to maximize their room rates. With computer software that can perform yield management, hotels can coor-

ordinate projected future usage by market segment and employ a continuously sliding scale of room charges to achieve the best room rates. The ability to adjust room rates constantly to maximize the yields produced by changes in room night demand is one of the advantages of hotel investment.

Estimating the Average Rate per Occupied Room

Different procedures are used to forecast the average rate per occupied room for existing and proposed hotels. An existing hotel has an operating history that establishes an actual average room rate, which serves as a starting point for forecasting future rates. Proposed hotels have no operating history, so the initial average room rate must be derived by analyzing the competitive rates actually achieved by local hotels with comparable facilities. The various procedures for forecasting average room rates for existing and proposed hotels are outlined in the following sections.

Forecasting Average Room Rates for an Existing Hotel

In forecasting average room rates for an existing hotel, the property's operating history is used as a starting point and future rate changes are forecast based on market conditions and the property's relative competitiveness. Seven steps are involved in this process.

1. Compile the subject's overall average room rates by month for the past three to five years.
2. Analyze historical trends in the subject's average room rates.
3. Consider the historical relationship between the average room rate and occupancy.
4. Research the average room rates for the subject property's primary and secondary competition.
5. Compare the average room rates of the subject and the competition.
6. Project future changes in average room rates.
7. Project the subject property's average room rate.

First, the subject's overall average rates are compiled month by month for the last three to five years. A monthly analysis is used to highlight any seasonality in the property's ability to charge desirable rates.

Next, historical trends in the subject's average room rates are studied and the compounded annual growth rate is calculated. If sufficient data are available, growth trends should be evaluated on a monthly basis and by individual market segments.

Since average room rate and occupancy are often related, the historic relationship between these two components should be analyzed. Average room rate can be affected by changes in occupancy. In markets where occupancies are declining, for example, average room rates will usually soften and sometimes even fall. In markets where hotel patronage is rising, average rooms rates will often show real growth in excess of inflation. These fluctuations can be attributed to competitiveness and price sensitivities. When a market experiences a decrease in lodging demand or an increase in the supply of hotel rooms, occupancy levels tend to decline. In-

dividual properties react to this erosion of patronage by becoming more competitive and rate-conscious or by holding a hard rate policy when negotiating for new business or contracts. As market-wide occupancy levels fall further, hotels feel increased pressure to cut rates even more to hold on to their market shares. By understanding the historic occupancy pattern experienced by the subject property, the appraiser is better able to explain past movements in average room rates based on this room rate-occupancy relationship.

In addition to the external market factors that influence average room rates, an individual hotel will generally experience an increase in its average rate as a result of increased occupancy. This increase can be attributed to the fact that as a hotel approaches 100% occupancy, management is able to sell more of the property's higher priced rooms and is less willing to offer discounts and other incentives to promote occupancy. A potential customer making a reservation at a hotel with one room remaining will probably pay the full or rack rate. By selling out its higher-priced rooms,

a hotel can generally increase its average room rate faster than either inflation or local market conditions would allow.

The appraiser's next task is to research the average room rates of the subject property's primary and secondary competitors. This information is usually gathered during competitive interviews. The appraisers should be sure that the data represent recent average room rates rather than published or rack rates.

The subject's average room rate is compared with the rates exhibited by the competition. Some differences can be attributed to factors such as location, the scope of the physical facilities, management, image, quality, and the market segments served. If the average room rate comparison reveals differences that cannot be adequately explained, further investigation is needed.

To project future changes in average room rates, many factors must be considered. The ability of a hotel to increase room rates over time is influenced by supply and demand, inflation, competitive standards, and specific property improvements.

As discussed previously, the relationship between the local supply of transient accommodations and the demand for lodgings is a determining factor contributing to future trends in hotel occupancy and average room rates. A market that is overbuilt or is losing demand will probably not experience any significant increases in average room rates. In fact, as this situation becomes more severe, room rates may even start to decline.

Price increases caused by inflation also affect room rates, but in an indirect manner. When a hotel operator sees profits being eroded by increased operating costs, there is a natural tendency to raise room rates to offset higher expenses. If other hotels in the market are in the same situation, the competitive environment will probably allow them all to increase their rates.

Room rates can also increase due to an improvement in the competitive standard. In established hotel markets where the stock of existing lodging facilities shows obvious physical and functional obsolescence, room rates may tend to lag behind inflation. This trend is often reversed when a new, upscale property is introduced into the markets. The new hotel must quickly achieve a higher-than-typical room rate to be economically justified. Most existing hotels in the same market benefit from the introduction of the higher-priced competition because it exerts upward pressure on room rates and enables all operators to raise their rates.

Changes in the subject property that make it more or less desirable to transient visitors can affect future trends in average room rates. The expansion, renovation, upgrading, or addition of facilities and amenities, new management, or a different franchise affiliation can allow a hotel to increase room rates more rapidly than normal. Similarly, the lack of periodic maintenance and replacement can make a property less competitive and cause room rates to decline.

After evaluating all the room rate data available and forming appropriate conclusions, the appraiser is ready to forecast the subject's average room rate over the projection period. Up to the point when the subject property reaches stabilized occupancy, movement in the average room rate is generally attributed to the property-specific and market specific factors described above. After the hotel achieves stable occupancy, most forecasters assume that room rates will continue to increase at the anticipated rate of inflation over the remainder of the projection period. Since each market situation is unique, this inflation assumption should be validated before it is utilized.

Forecasting Average Room Rates for a Proposed Hotel

Forecasting the average room rate for a proposed hotel is similar to the procedure applied to an existing property except the appraiser does not have an operating history and a benchmark rate from which to project

room rates into the future. The appraiser should begin by compiling a complete database of information relative to the room rates actually achieved by competitive properties in the area. In addition to collecting room rate data (by market segment if possible), the appraiser should examine the relative competitiveness of each property to identify the reasons for any room rate differentials. This information is then used to project average room rates for the proposed subject property.

Three methods can be used to forecast average room rates:

1. Competitive positioning
2. Market segmentation
3. Rule-of-thumb

Competitive positioning method. The competitive positioning method starts with an analysis of the average room rates currently achieved by local competitive hotels. These rates establish a range within which the

room rate for a proposed hotel is likely to fall. The projected average rate for the subject property is then set close to the average rate of the hotel in the sample that is most similar to the subject in quality, size, facilities, amenities, market orientation, location, management image, and affiliation. Upward and/or downward adjustments are then made to the average rate to reflect any differences between the comparable and the subject property.

The competitive positioning method works well if the local market contains a hotel that is relatively comparable to the proposed subject property. It can also be used to verify that the average room rates achieved by an existing hotel represent an optimum level for the market.

Market segmentation method. In applying the market segmentation method, the appraiser develops an average room rate by individual market segments. This method starts with the previously developed demand forecast for the subject property, which includes a projection of the number of room nights captured for each market segment (commercial, meet-

ing and group, leisure, etc.). Using the rates charged by competitive properties as a base, a room rate estimate is developed for each market segment. The estimated room rate for each market segment is multiplied by the projected number of room nights captured and the results are totaled to yield the total rooms revenue. An average rate is then calculated by dividing total rooms revenue by the number of rooms occupied.

The advantage of the market segmentation method is its ability to adjust the projected average room rate for changes in market mix. For example, a new, convention-oriented hotel is likely to experience a buildup of convention capture during its initial years as sales efforts become more effective and groups are drawn to the property. If convention rates are lower than the property's commercial rates, the change in the market mix away from commercial business and toward more convention patronage will probably slow the growth of the average rate. This room rate sensitivity can only be examined by assigning an individual rate to each market segment and using the market segmentation method.

Rule-of-thumb method. In the hotel industry there is a rule of thumb that states that for every \$1,000 of total project cost (on a per-room basis), a hotel must achieve an average room rate of at least \$1.00 to be financially feasible. Therefore, if it costs \$90,000 per room to construct a new hotel, the property must attempt to achieve an average rate of \$90.

The rule-of-thumb method provides a target indicating where the average room rate should be set; it is not a market-based approach and does not consider the various local competitive factors investigated in the other methods. However, in markets where several new properties have recently been added, the upward pressure on room rates generated by the economics inherent in this thumb rule often causes the entire market to raise rates.

Because the rule-of-thumb method is extremely simple, it must rely on numerous assumptions. Some of the many assumptions built into this method pertain to the subject's occupancy rate, the ratio of food and beverage revenue to rooms revenue, operating costs, fixed expenses and capi-

tal costs. Properties that do not fit the national norms for these characteristics are apt to require more or less than \$1.00 of average rate to justify \$1,000 per room of development cost. For example, assume that this rule of thumb works for hotels with an occupancy rate of 72%. If the subject property is projected to achieve only 68% stabilized occupancy, then it will take more than \$1.00 of average room rate to cover \$1,000 per room in development costs. In this case an adjusted rule of thumb of \$1.25 to \$1.50 of average room rate might be needed to justify each \$1,000 of cost per room.

Room Rate Discounts

It is not unusual for new hotels to discount their room rates during the initial years of operation in an attempt to increase the hotel's market share and generate occupancy. If this strategy is likely to be utilized, the appraiser should adjust the average room rates established by the previously described methods downward to reflect appropriate room rate discounts.

In the following case study, average room rates are projected for an existing hotel, as well as a proposed lodging facility.

CASE STUDY

Projecting Average Room Rates

The average room rates for the existing Embassy Suites and the proposed Sheraton Hotel will be estimated for each projection year until the hotel achieves stabilized occupancy.

Since hotel room rates depend greatly on the local competitive market, it is necessary to survey the average rates achieved by the competition. Table C.S.4.38 shows the average room rates for the primary competition (including the Embassy Suites) in the base year. The weighted average of the aver-

age room rates is also presented; it accounts for the size and base year occupancy level of the properties.

In the base year, the Embassy Suites posted the strongest average rate, at \$151. This hotel led the market by virtue of its all-suites guestroom facilities, the quality of its location, and the popularity and strong loyalty engendered by the Embassy Suites brand. The market's Hilton, Courtyard, and Radisson affiliates also achieved relatively high average rate levels, each exceeding the market average of \$130.57. Overall, the Embassy Suites actual results for the base year are considered to adequately reflect its competitive position, requiring no material adjustment.

In order to project future increases in the Embassy Suites' average rate levels, additional context for rate growth trends may be derived from market data provided by Smith Travel Research (STR). Table C.S.4.39 sets forth average rate trends for all hotels located in suburban Long Island, as compiled and published by STR. Note that this survey pertains to a broader market area than that defined for the subject property. Nevertheless, the data are a worthy indicator of general pricing trends.

Between 1990 and 1999, average rate in the suburban Long Island market area increased at an average annual compounded percentage rate of 5.5%. This growth rate encompasses the early 1990s, during years of economic recession, as well as the economic expansion of the late 1990s. Whereas the market's average rate actually declined in 1991, dramatic growth of 11.5% was noted in 1998. In 1999, average rate growth slowed slightly, but remained strong at 9.0%.

In future years, as new hotels begin to enter the competitive market, average rate growth may be expected to slow significantly. Occupancy levels are expected to soften in the near term, and therefore limit prospects for the type of aggressive pricing increases noted in the past four years. These considerations are reflected in the projection of average rate for the Embassy Suites, as detailed in Table C.S.4.40.

In projecting the average rate of the proposed Sheraton, we have used the market segmentation method. Because we have access to the historical segmented average rate results realized by the Embassy Suites, the data may be

used as a basis for estimating the subject property's segmented average rates. Table C.S.4.41 identifies the Embassy Suites' data, as well as the projections for the Sheraton. As noted, the Sheraton's average rate is expected to be lower than that of the Embassy Suites in each demand segment, owing to the popularity of the Embassy Suites operating concept, and the fact that each of its guest units are two-room suites. After accounting for the proposed Sheraton's higher share of discounted meeting and group demand relative to the Embassy Suites, the resultant average rate will also account for the impact that market segmentation has on a given hotel's overall average rate.

In order to project future changes in the segmented rates selected for the Sheraton, Table C.S.4.42 sets forth the appraiser's estimate of future changes in market-wide average rate. Variation in the overall pricing trends may be reflected in a given market segment; however, in the case of the subject market area, we have projected uniform increases of 6.0% in year one, 5.0% in year two, 4.0% in year three, and 3.0% in year four and thereafter. Table C.S.4.43 sets forth the basis for the segmented average rate forecast. In Table C.S.4.44, the projected segmented average rates are multiplied by the segmented demand forecast for the proposed Sheraton, beginning as of year three, the hotel's first year of operation. The revenue in each year is totaled

and divided by the total demand, resulting in a forecast of weighted average rate.

Since the projected average room rates for the proposed Sheraton were estimated through comparison with the average rates achieved by similar, but more established hotels in the market, the initial years' rates must be adjusted downward to account for factors such as discounting, occupancy buildup, and customer acceptance. Most new hotels will discount their room rates during the first year or two to offer a competitive advantage and build occupancy. This strategy tends to set a new property's actual average rate below that of a comparable hotel operating at its stabilized level of occupancy. As occupancy builds up, room rates tend to increase because the hotel is selling more of its higher-priced rooms and suites. Management can usually begin to be less flexible in offering discounts and acquires more experience in maximizing yield. Finally, as a hotel matures, customer acceptance becomes more established, and this loyalty often allows the operator to push room rates upward.

To account for all the factors that tend to depress room rates during the initial years of operation, an appropriate discount must be applied to the projected average rates derived from comparable hotels. Generally the size of this discount is inversely proportional to the hotel's overall competitiveness. The discount may also be related to the general health of the local hotel market, which might suggest deeper discounts when occupancy levels are depressed.

Based on the appraiser's analysis, the discounts shown in Table C.S.4.45 were applied to the proposed Sheraton's average rate during its first two years of operation.

5. Forecasting Revenues and Expenses

To develop a supportable estimate of value using the income capitalization approach, the appraiser must make forecasts of income and expenses that reflect the outlook of typical hotel investors. Hotels and motels are unique forms of real estate with many unusual characteristics, including intensive use of labor, cost-of-goods-sold expense categories, and a retail product identity. Special knowledge and data are required to estimate the future income of a hotel. This chapter describes step-by-step procedures for projecting income and expenses using data sources available to all appraisers.

Existing Facility vs. Proposed Facility

Valuing an existing hotel generally requires less fieldwork than valuing a proposed facility. In the case of an existing hotel, the appraiser first reviews the local supply and demand situation and projects the subject's future reve-

nue. Then, using the property's operating ratios obtained from previous years' financial statements, various expense categories are estimated. These estimates should be compared to the operating results of similar properties, if available, or to national averages; any differences should be resolved. Discrepancies may occur for several reasons, including:

- Unusual property characteristics. Some hotels are more costly to operate than others. For example, beachfront hotels have higher maintenance expenses, properties in the Northeast U.S. pay more for energy, commercial hotels have more credit card commissions, and airport hotels incur shuttle bus expenses.
- Assumed competent management. Projected expenses reflect competent management, while the actual management may be better than, equal to, or less capable than is typical.
- Different levels of occupancy and average rate. When comparing expense ratios for two properties, the appraiser must ascertain that they operate at similar levels of occupancy and have similar average rates. Lodging facilities generally experience more efficient operations as their rates and occupancies increase.

The final income and expense estimate for an existing hostelry should be a blend of past operating results and future expectations.

Assembling sufficient market information and comparable data for a proposed facility requires more research. The primary objective of market analysis is to accumulate enough information to formulate estimates of occupancy and average rate. Once these two factors have been established, rooms revenue and other sources of income may be computed.

Because a proposed hotel has no operating history on which to base an expense projection, the appraiser must either obtain data from existing comparable properties or use national averages. Statistics from either of these sources can be processed to project income and expenses for the proposed subject property. Because national averages are available to all appraisers, they are used here to demonstrate the projection procedure. However, actual operating performance data from a comparable property are generally preferred.

National Averages

Each year several firms compile operating statistics and ratios for hundreds of hotels and motels throughout the United States. This information is generally categorized according to property size, room rate, geographical location, and other characteristics. The data represent average operating results and typical management ability and may be used to evaluate an existing operation or to project income and expenses for a proposed facility. Currently, the best source of national hotel operating data is Smith Travel Research.

Uniform System of Accounts for Hotels

The data found in most hotel financial statements are arranged in accordance with the *Uniform System of Accounts for the Lodging Industry (USALI)*. This system, which was established by the Hotel Association of New York City in 1926 and later adopted by the American Hotel and Motel Association. The

Ninth Revised Edition of the format, designed to conform with evolving accounting practices, was issued in 1998.

The USALI provides a simple formula for classifying the accounts used by hotels of all types and sizes. The universality of the system allows appraisers to compare individual properties or groups of properties with similar characteristics.

A complete set of financial statements for a hotel or motel should include a balance sheet, a statement of income and expenses, a statement of changes in financial position, and any disclosures needed to comply with generally accepted accounting principles. The appraiser is primarily interested in the data contained in the statement of income and expenses.

The following list is extracted from the *Uniform System of Accounts for the Lodging Industry* (1998), published by the Educational Institute of the Ameri-

can Hotel and Motel Association, Orlando, Florida. It shows how various hotel activities are classified in income and expense statements.

Operated departments

- Rooms
- Food
- Beverage
- Telephone
- Garage, parking lot
- Guest laundry
- Golf course
- Golf pro shop
- Tennis, racquet club
- Tennis pro shop Health club
- Swimming pool, cabanas, baths
- Other operated departments
- Rentals and other income

Total operated departments

Undistributed operating expenses

- Administrative and general expenses
- Human resources
- Information systems

- Security
 - Transportation
 - Marketing
 - Guest entertainment
 - Franchise Fee
 - Property operation and maintenance
 - Energy costs
- Total undistributed operating costs

House Profit

- Management Fee

Total income before fixed charges

- Rent, property taxes, and insurance
- Interest expense
- Depreciation and amortization

Total fixed charges

Income before income taxes

- Income taxes

Net income

The total income after expenses for each major revenue-producing department is listed separately. If there are other departments with revenues and expenditures, they too are enumerated. The expenses incurred by undistributed overhead departments and capital expenses are then listed. The entries are totaled to determine the property's income before taxes. Then state and federal income taxes are deducted to arrive at the net income of the property.

Because this format does not address the specific needs of the appraiser, who must capitalize income after property taxes and insurance but before interest, depreciation, and amortization, a slightly modified system is required to indicate:

Total income before fixed charges

- Property taxes
- Insurance
- Reserve for Replacement

Total fixed charges

Income before debt service

Under the USALI, salaries and wages are allocated to individual departments and expense categories as follows:

Rooms

- Assistant managers
- Front office
- Housekeeping
- Service (doorman, front)
- House officers and watchmen

Food

- Food preparation
- Food service

Beverage

- Beverage service

Administrative and general

- Manager's office
- Accounting office
- Data processing
- Front office bookkeeping

- Night auditors
- Credit office
- Timekeepers
- Receiving clerks
- Employment office
- Employees' locker attendants

Marketing

- Sales department
- Advertising
- Merchandising
- Public relations and publicity
- Research

Guest entertainment

- Manager
- Entertainment director
- Stagehands

Property operation, maintenance, and energy costs

- Chief engineer and assistant
- Engineers
- Painters and paperhangers
- Radio and television repair
- Grounds and landscape
- Office and storeroom

Forecast of Revenue and Expense

The forecast of revenue and expense begins by converting the occupancy and average rate projections into an estimate of rooms revenue. Using data collected in the market and industry statistics, the appraiser then develops a forecast of other revenue items such as food, beverage, telephone, and other income as well as normal hotel operating expenses. Combining all this information produces a highly documented forecast of revenue and expenses, which becomes a key component in estimating market value and evaluating the economics of the investment. This chapter will demonstrate how all types of hotel revenues and expenses are forecasted.

Rooms Revenue Defined

The primary components of rooms revenue -- occupancy and average room rate -- were discussed and projected in Chapter 3. A projection of rooms revenue is derived using the following formula:

Occupancy X average room rate X room count x 365 = Rooms revenue

The following case study demonstrates the projection of rooms revenue.

CASE STUDY

Rooms Revenue

The rooms revenue projection for the proposed Sheraton Hotel is calculated in Table C.S.5.1, while the rooms revenue projection for the existing Embassy Suites is calculated in Table C.S.5.2. In each case, the occupancy rate is multiplied by the number of rooms in the hotel per year (room count x 365) in order to generate an estimate of the number of occupied rooms. Rooms revenue is then calculated as the product of occupied rooms multiplied by average rate.

Fixed and Variable Component Approach to Forecasting

Before projecting individual items of hotel revenue and expense, appraisers must understand the fixed and variable component approach to forecasting. This approach produces one of the most accurate models of a hotel's financial performance; it forms the basis for many computerized hotel forecasting programs utilized by hotel appraisal firms, hotel companies, investors, lenders, and developers.

Theoretical Basis

The fixed and variable component approach is based on the premise that hotel revenue and expenses have one component that is fixed and another com-

ponent that varies directly with occupancy and use of the facility. A projection can therefore be made by examining a known level of revenue or expense and calculating the portion that is fixed and the portion that is variable. Then the fixed component is held at a constant level, while the variable component is adjusted to reflect the percentage change between the projected occupancy and facility utilization and the actual occupancy and facility utilization that produced the known revenue or expense. This process is demonstrated in the following example.

Example

A 200-room commercial hotel operated last year with an occupancy of 70%, an average room rate of \$104.33, and a rooms department expense of \$1,226,000, or 23% of rooms revenue. A projection for this year indicates that the subject's occupancy is expected to fall to 61% because several new hotels will open in the area during the year. This year's rooms department expense can be calculated with the procedure described below.

First, last year's rooms department expense is expressed in this year's dollars by applying a 3% inflation rate.

$$\$1,226,000 \times 1.03 = \$1,263,000 \text{ (rounded)}$$

The appraiser has determined that 60% of the rooms expense is typically fixed and the remaining 40% varies with occupancy. Thus fixed and variable components of this year's rooms expense are estimated as follows:

$$\text{Fixed: } .60 \times \$1,263,000 = \$758,000 \text{ (rounded)}$$

$$\text{Variable: } .40 \times \$1,263,000 = \$505,000 \text{ (rounded)}$$

Next, the variable component is adjusted for the decline in occupancy from 70% to 61%. The percentage decline in occupancy (occupancy adjustment) is calculated by dividing the projected occupancy by the known occupancy.

$$.61 \div .70 = .8714$$

Multiplying the occupancy adjustment by the variable component yields the adjusted variable component.

$$.8714 \times \$505,000 = \$440,000 \text{ (rounded)}$$

Finally, the fixed component and the adjusted variable component are combined to produce the estimated rooms department expense at 61% occupancy.

Fixed component	\$ 758,000
Adjusted variable component	<u>440,000</u>
Projected rooms department expense	\$1,198,000

Assuming the hotel's average rate remains at \$104.33 in the first projection year, the hotel's rooms departmental expense ratio will increase from 23.0% to 25.8%.

The fixed component of rooms expense represents items such as front desk salaries and the cost of cleaning of public areas that must be maintained whether the hotel is operating at 0% or 100% occupancy. The variable component is made up of items such as maids' salaries and guest supplies, which vary directly with the level of occupancy.

Application of the Approach

The process of forecasting hotel revenue and expenses by the fixed and variable component approach is accomplished in nine steps, which are outlined below.

Step 1. All items of revenue and expense are projected based on information found in the financial statements of the subject and/or comparable hotels. If the subject property is an existing hotel, then its past operating performance is generally used to establish future projections. For proposed hotels the appraiser must rely on the operating results of hotels considered to be comparable to the subject property.

Step 2. Comparable financial statements must usually be adjusted or modified somewhat to reflect the unique characteristics of the subject property. These adjustments may include changing the average room rate, modifying the income and expense ratios, and altering the fixed charges. These various adjustments and modifications are made to create a one-year financial statement that uses the first-year average room rate of the subject property expressed in current dollars, prior to any initial year discounts, and the income and expense ratios that represent the level of occupancy actually experienced by the comparable. This profit and loss statement is called the *base* (or comparable base) and will form a foundation for calculating fixed and variable component relationships.

Step 3. The revenue and expense figures that make up the base are revised (inflated or deflated) to reflect current dollars for each forecast year. The rate of change applied should reflect the anticipated price change for the individual line item in the income and expense statement. The average room rate used in the base is derived from the average rate projection. Any discounting of average room rates is disregarded in developing the base for each projection year. The purpose of Step 3 is to put the comparable financial data that make up the base into the inflated dollars anticipated for that particular year.

Step 4. Fixed and variable percentages are estimated for each revenue and expense category. Table 5.1 shows typical ranges of fixed and variable percentages and the index used to measure the amount of variable change.

These fixed and variable percentages were developed from a regression analysis that evaluated hundreds of financial statements to determine what por-

tion of each revenue and expense category was fixed and what portion was variable.

The index of variability refers to the factor that controls the movement of the variable component. For example, the variable component of food revenue moves in response to changes in occupancy. Beverage revenue seems to be tied directly to food revenue. Food and beverage expense levels are largely dependent on changes in food and beverage revenue. The variable components of undistributed operating expenses and all fixed expenses seem to move in relation to total revenue.

Step 5. Each individual line item in a hotel's financial statement is projected separately using the fixed and variable calculations. The fixed component is estimated by multiplying the appropriate fixed percentage by the base revenue or expense line item for the corresponding projection year. The variable component is estimated in Steps 6 through 8.

Step 6. Variable components are assumed to vary directly with the index of variability established in Step 4. The amount of variable change is quantified by dividing the appropriate projected index of variability by the index of variability for the base. For example, assume that the projected occupancy percentage for the subject property in Year 1 was 62%. The occupancy of the base was 73%. Dividing the projected occupancy by the base occupancy results in the following variable percentage change:

$$\frac{\text{Projected occupancy}}{\text{Base occupancy}} = \frac{.620}{.730} = .849, \text{ or } 84.9\%$$

$$\text{Base occupancy} \quad .730$$

Basically this calculation shows that, as of that projected year, the subject's occupancy is estimated to be 84.9% of the occupancy percentage found in the comparable base data.

Step 7. The unadjusted variable component is calculated by multiplying the appropriate base revenue or expense item for the projected year by the varia-

ble percentage estimated in Step 4. Note that the total of the fixed and variable percentages for each line item must equal 100%.

Step 8. The unadjusted variable component must now be adjusted for variability in the index by multiplying the results of Step 7 by the variable percentage change calculated in Step 6. The product is known as the *adjusted variable component*.

Step 9. The forecast for the revenue or expense category is the total of the fixed component calculated in Step 5 and the adjusted variable component calculated in Step 8.

Step 1: Obtain Comparable Financial Statements

Obtaining operating information on hotels and motels is relatively simple for firms that regularly appraise existing lodging facilities. For those who only perform this type of assignment occasionally, comparable financial data can be more difficult to obtain.

The key to selecting financial data for use in projecting hotel income and expenses is to rely on only recent financial statements from properties that are truly comparable to the subject. Employing the financial comparable selection procedure facilitates this process. Lodging facilities vary in many respects, including differences attributable to location, size, facilities, class, management, occupancy, and average room rate. Each of these factors can impact a hotel's financial operating results in a unique way. When a number of financial statements are available, the financial comparable selection procedure indicates the order in which factors should be considered to screen out the statements of hotels that are less similar to the subject.

Financial Comparable Selection Order

1. Average room rate (class)
2. Facilities
3. Room count

4. Management (image & service)
5. Occupancy
6. Geographic location

In evaluating several financial statements, the appraiser should first look for income and expense data from hotels that are similar to the subject property in terms of average room rate. The class or rate structure of a hotel has a direct impact on both income and expense ratios, particularly fixed expenses that are measured on a per-available-room basis. Generally hotel operating data should not be compared unless the properties are either in the same class or no more than one class away. Most hotels can be categorized in one of the following room rate classifications: luxury, first-class, mid-rate, economy (budget), or sub-budget.

After the appraiser has accumulated financial statements from other properties with similar room rates, attention is focused on hotels with facilities that are most comparable to those of the subject property. The term facilities is first used in a broad sense. Hotels can be classified by the types of facilities offered -- e.g., commercial, convention, resort, conference, health spa, suite,

extended stay. Within these broad classifications financial comparability can be further refined by matching properties with similar physical components. For example, the term convention hotel can include a wide range of properties, from a 250-room suburban hotel to a 2,000-room convention center facility. Some resort hotels may just offer rooms on a beach, while others may provide a full resort complex with all types of recreational amenities. The age and condition of the facility should also be considered. Financial comparability can be enhanced by using the financial statements of properties with similar facilities, particularly if these facilities generate large amounts of revenue (food and beverage) or operating expenses (golf courses).

Room count is the next consideration in the financial comparable selection order. The financial data used in projecting income and expense are generally more reliable when they come from comparable properties that are similar in size to the subject property. In assessing comparability size can be defined in broad terms. A small hotel might be defined as one with 0 to 150 rooms. A midsize property would range from 150 to 300 rooms and properties of 300 to 1,000 rooms would be considered large. A mega-property would be a hotel of

1,000 rooms or more. These categories can overlap so size must be evaluated on a case-by-case basis.

When the future management of a hotel is known, it is often appropriate to use the financial operating ratios exhibited by other properties managed by this particular operator as a basis for forecasting income and expense. Although more weight should be given to the previous considerations in the financial comparable selection order (i.e., average room rate, facilities, and rooms count), the obvious strengths and weaknesses of the contemplated management should be factored into the analysis, particularly if the property is subject to a long-term management contract.

Occupancy is one of the least important considerations in the evaluation of comparability. When the fixed and variable income and expense forecasting model is used, differences in occupancy levels between the comparable and the subject property are automatically adjusted. Nevertheless, appraisers should avoid using financial data from hotels that exhibit widely divergent occupancies.

Geographic considerations are generally given minimal weight in selecting comparable financial data. Most hotel operating expenses are not dependent on the property's geographic location. However, two specific expense categories, energy cost and property taxes, are strongly affected by local factors. In addition, data from markets such as New York City, Washington, DC, and San Francisco, which are burdened by unusually high labor costs, should not be compared with properties that are not similarly affected.

Appraisers should recognize that the financial comparable selection order provides a quick method for identifying financial data that may be comparable to the subject property. In certain situations it may be appropriate to use data that do not fall within the process described so long as the desired effect -- i.e., a proper base for projecting income and expense -- is ultimately obtained.

CASE STUDY

Financial Comparable Selection Order

The following statement of income and expense (Table C.S.5.3) was obtained from a hotel that is considered to be closely comparable to the proposed Sheraton.

Table C.S.5.4 shows the areas of similarity between the comparable and the proposed Sheraton Hotel.

Several adjustments will be made to these financial data to make them comparable to the physical, operational, and location-specific characteristics contemplated for the proposed Sheraton.

Step 2. Adjust comparable financial statements

Comparability among hotels is never precise, so adjustments must be made to individual categories (line items) of income and expense to bring the actual operating results of the comparable closer to the expectations for the subject.

Comparable financial data are adjusted in two stages. In Stage 1, the comparable operating data for a particular income or expense category are projected for the subject property using an appropriate unit of comparison. This produces a general estimate of each income and expense category. In Stage 2, each of the subject's projected revenue and expense categories is fine-tuned by factoring the property's unique physical, operational and location-specific attributes into the final projection. Both of these stages are described.

When making a projection of income and expense using comparable financial data, it is first necessary to break down the comparable income and expense statement into specific units of comparison. For hotels, these units of comparison include:

- Percent of total revenue
- Percent of rooms revenue
- Percent of food and beverage revenue
- Dollars per available room
- Dollars per occupied room

Applying units of comparison puts the financial data on a common basis so that the operating results of the comparable can be analyzed and projected for the subject. A given unit of comparison may be better suited to some revenue and expense categories than others. Certain units are more applicable because of specific volume relationships, which cause individual revenue and expense categories to react differently to changes in a hotel's occupancy, average room rate, and food and beverage volume. If, for example, a revenue or expense category varies in relation to changing occupancy levels or average room rates, the appropriate unit of comparison would be the percentage of rooms revenue or total revenue. If the category is primarily fixed, then greater emphasis should be placed on the

dollars per available room unit of comparison. A category that is food and beverage-sensitive would be expressed as a percentage of food and beverage revenue.

Table 5.2 shows the primary units of comparison applied in projecting each category of hotel income and expense from a comparable financial statement.

Each of the five units of comparison in the first column is sensitive to the various factors shown in the second column. For example, the percentage of total revenue is sensitive to a hotel's occupancy, average room rate, and food and beverage revenue. The last column shows which income and expense categories are best projected by a specific unit of comparison. Since most items of income and expense have both a fixed component and a variable component, it is sometimes appropriate to use more than one unit of comparison.

Once a projection for a category of income and expense is made using the units of comparison described, it is often necessary to fine tune the projection to account for the physical, operational, and location-specific differences between the comparable and subject property. Primary differences that should be adjusted for include:

- Difference in average room rate, particularly if the subject property is in a higher or lower class (e.g., economy, mid-rate, first, luxury) than the comparable;
- Substantial differences in size (room count);
- Differences in food and beverage volume, particularly if one property had significantly more or less beverage or banquet revenue;
- Location-specific differences, which generally affect energy costs and property tax expense.

Since fixed and variable analysis adjusts for differences in occupancy between the comparable and the subject property, no specific adjustment is needed to account for a variance in occupancy at this point in the projection process.

When fine-tuned adjustments are required to account for differences between properties, the unit of comparison used in the projection is adjusted either upward or downward in the manner described below.

Percent of total revenue. Adjusting the percentage of total revenue unit of comparison upward for an expense item causes the dollar amount of that expense to increase.

Average room rate. When the comparable has an average room rate that is higher than the rate of the subject property, its operating expense ratios based on a percentage of total revenue tend to be lower. If such an unadjusted percentage were to be applied to the subject property, it would be understated; therefore, the unit of comparison should be fine-tuned upward.

Room count. It is difficult to determine how to adjust the percentage of total revenue based on the size of the property. In general, if the comparable is slightly larger than the subject property, its operating expense ratios, which utilize a percentage of total revenue, tend to be lower because some of the fixed expenses (such as payroll) can be spread out over a greater amount of revenue. This advantage ends at the point when added costs must be incurred to handle the additional rooms. For example, a single general manager might operate a 100-room hotel efficiently. That same individual could probably handle an additional 75 rooms, which would decrease the management payroll expressed as a percentage of total revenue. Once the room count exceeds 175, however, it may be necessary to hire an assistant manager to take over some of the operational responsibilities. This extra expense quickly increases the expense ratio.

Food and beverage revenue. When the comparable has more food and beverage revenue than the subject property, its operating expense ratios, based on a percentage of total revenue, tend to be lower and should be fine-tuned upward when projecting expenses for the subject property.

Percent of rooms revenue. The fine-tuned adjustments for this unit of comparison are the same as those just described for the percentage of total revenue.

Percent of food and beverage revenue. This unit of comparison is used primarily to project food and beverage department expenses. As the volume of food and beverage increases, the food and beverage expense ratio usually decreases. If the comparable has more food and beverage revenue than the subject property, its food and beverage expense ratio would be lower and should be adjusted upward to project the subject's food and beverage department expenses. An even greater upward adjustment is needed if the comparable has a considerable amount of beverage or banquet business, which tends to operate at a greater profit margin.

Dollars per available room. Adjusting the dollars per available room unit of comparison upward for an expense item causes the dollar amount of that expense to increase.

Average room rate. When the comparable has an average room rate that is higher than the rate of the subject property, it is likely to be providing a superior level of service. This would tend to increase the cost of operations on a per-available-room basis. In this instance the unit of comparison used to project expenses for the subject property should be adjusted downward.

Room count. The preceding discussion of an efficient room count also applies to the dollars per available room unit of comparison. If the comparable has a room count that is less efficient than the subject's, its operating expenses expressed on a per-available-room basis, could be overstated and may have to be adjusted downward when making a projection for the subject property.

Food and beverage revenue. If the comparable has a greater amount of food and beverage revenue than the subject property, its operating expenses will probably be higher when expressed on a per-available-room basis. In this case the unit of comparison used to project expenses for the subject property should be adjusted downward.

Dollars per occupied room. Since the occupancy level used for the subject property's base profit and loss statement will be the same as the occupancy of the comparable, the adjustments made to this unit of comparison should be identical to those used for the dollars per available room.

CASE STUDY

Adjusting Comparable Financial Data

The process of adjusting comparable financial data will be illustrated for the proposed Sheraton Hotel. First, each income and expense category is projected using an appropriate unit of comparison (Stage 1) and then the results are fine tuned (Stage 2). Each category of income and expense is analyzed and adjusted separately using the comparable statement of income and expense (Table C.S.5.3), which was selected for the proposed Sheraton through application of the financial comparable selection order. This process will result in a one-year financial statement that incorporates the subject's base year average room rate expressed in current dollars (before initial year discounting), and income and expense ratios that reflect the level of occupancy actually experienced by the comparable. This profit and loss statement, which is called the base or comparable base, will form a foundation for calculating the fixed and variable component relationships.

Rooms Revenue

The base rooms revenue is calculated by multiplying the occupancy rate by the average room rate, the room count, and 365. Since the fixed and variable component approach will automatically adjust for differences in occupancy,

the comparable property's occupancy level will be used for the subject property. The Sheraton's average room rate was projected at \$172.22 in the fifth year. Deflating this figure back to base year dollars at the assumed underlying inflation rate of 3.0% renders a result of \$148.56. The base rooms revenue is therefore calculated as follows:

$$.68 \times \$148.56 \times 250 \times 365 = \$9,218,000 \text{ (rounded)}$$

Food and Beverage Revenue

Food and beverage revenue is generated by a hotel's restaurants, lounges, coffee shop, snack bar, banquet rooms, and room service. These outlets are both revenue sources and necessary amenities for the sale of guest rooms. Although some hotels have active lounges and banquet facilities that draw local residents in most hotels, guests represent a substantial portion of the food and beverage patrons.

In the Uniform System of Accounts for the Lodging Industry, food revenue is defined as "revenue derived from the sale of food, including coffee, milk, tea and soft drinks. Food sales do not include meals charged on employee's (staff) checks." Beverage revenues are "derived from the sale of beverages." In addition to the revenue generated through the sale of food and beverages, hotels normally produce other related income derived from meeting room rental, cover charges, service charges, and miscellaneous banquet revenue. The combination of food income, beverage income, and other food and beverage income equals total food and beverage revenue.

Table C.S.5.5 shows the various revenue categories that comprise the food and beverage department within a hotel.

The comparable statement of income and expense (Table C.S.5.3) provides the following data, which will be used to project the base food revenue for the proposed Sheraton.

Total food revenue	\$4,734,000
Food revenue per available room	\$16,325

Food revenue per occupied room	\$65.77
Ratio of food revenue to rooms revenue	46%
Ratio of food revenue to total revenue	26%

The description of the comparable hotel provided in Table C.S.5.4 indicates that this hotel has larger, more elaborate food and beverage facilities than are planned for the proposed Sheraton. Specifically the comparable has 50 square feet of meeting and banquet space per room compared to the subject's 42 square feet -- a difference of about 16%. In addition, the Sheraton will have a lower concentration of restaurant and lounge space.

These differences between the food facilities of the comparable and those planned for the subject indicate that the food revenue per available room unit of comparison should be adjusted downward. Offsetting this downward adjustment would be a slight upward adjustment to reflect the Sheraton's new facilities and higher average room rate, which could have a positive impact on menu prices. Based on this analysis, the comparable property's food revenue per available room will be adjusted downward by 15%. When this adjustment is applied, the following base food revenue is produced:

$$\$16,325 \times .85 \times 250 \text{ rooms} = \$3,469,000 \text{ (rounded)}$$

The ratio of food revenue to rooms revenue would also be an appropriate unit of comparison. This unit of comparison would be adjusted downward to compute the subject's food base. However, the ratio of food revenue to total revenue is generally a less reliable unit of comparison.

Beverage revenue is derived from the sale of alcoholic beverages in a hotel's restaurants and banquet rooms and from the sale of both alcoholic and non-alcoholic beverages in the hotel's bars and lounges. Beverage revenue can be projected in a manner similar to food revenue using either the build-up cover approach or the fixed and variable component method. Appraisers should recognize that much of the beverage revenue generated by a hotel usually comes from its lounge outlet. Lounge customers tend to be very fickle, however, frequenting a popular spot one year and not returning the next. Since management plays an important role in the ultimate success of a hotel's beverage operation, it is often wise to use comparable beverage revenue data

that reflect the same level of beverage management expertise as will be experienced by the subject property.

Beverage revenue tends to be highly variable, changing directly with food revenue. The most appropriate unit of comparison, therefore, is a percentage of food revenue. The ratio of beverage revenue to food revenue for the comparable is approximately 33%. While the proposed Sheraton will have a similar ratio of beverage facilities to food facilities as the comparable, a downward adjustment to the unit of comparison is appropriate to account for the comparable property's highly successful lounge. Using a ratio of beverage revenue to food revenue of 27%, the following calculation shows the base beverage revenue for the subject property.

$$\$3,469,000 \times .27 = \$937,000 \text{ (rounded)}$$

Telephone Revenue

Telephone revenue is generated from hotel guests charging local and long-distance calls to their rooms and from out-of-town patrons using the hotel's public telephones. Before deregulation of the telephone industry in the early 1980s, hotels were limited to a 15% commission on long-distance calls. This mark-up was generally too low to generate a profit for most hotels' telephone departments, which typically ran at a loss. Today, however, the mark-up at which hotels can resell telephone services to guests is not regulated. Because of this freedom and the development of sophisticated call accounting equipment, the telephone department is generally able to make some profit. State-of-the-art telephone equipment can provide functions as sophisticated as least cost routing, automatic price billing, and post telephone charging to guest folios. Moreover, hotels can select among various providers of long-distance services and can work with any one of a number of Alternative Operator Services (AOS), which route and price calls and may also provide additional telephone-related guest services.

In recent years the hotel industry has seen diverging trends with respect to telephone revenue. The number of long-distance calls billed per occupied room has decreased due to the use of long-distance carrier services accessed via calling cards, as well as increased reliance upon email. When hotel

guests charge long-distance calls to their personal or business telephone accounts, the hotel loses the revenue from the long-distance tariff and mark-up and can generally charge only an access fee.

Table C.S.5.6 shows the various accounts that comprise telephone revenue according to the Uniform System of Accounts for the Lodging Industry.

Telephone revenue varies directly with changes in occupancy. The small portion of this revenue category that is fixed represents pay station revenue generated by unregistered patrons using the hotel's food and beverage outlets and meeting rooms. The appropriate units of comparison would be revenue per occupied room and revenue per available room.

The comparable statement of income and expense shows the following data, which provide a basis for projecting the base telephone revenue for the proposed Sheraton.

Total telephone revenue	\$474,000
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Telephone revenue per available room	\$1,636
Telephone revenue per occupied room	\$6.59
Ratio of telephone revenue to rooms revenue	4.6%
Ratio of telephone revenue to total revenue	2.6%

Because the comparable property has about 15% more meeting, banquet, restaurant, and lounge facilities than the proposed Sheraton, it probably attracts 15% more unregistered food and beverage patrons who would use the pay telephones. If outside usage represents 10% of the total telephone revenue (the fixed component), then the comparable data should be adjusted downward by approximately 1.5% ($15\% \times 10\% = 1.5\%$). Based on this analysis, the comparable property's telephone revenue per occupied room is adjusted downward by 1.5%. With this adjustment, the base telephone revenue is calculated as follows:

$$\$6.59 \times .985 \times 250 \text{ rooms} \times .68 \times 365 = \$403,000 \text{ (rounded)}$$

The same base telephone revenue could have been calculated using the telephone revenue per available room. The ratio of telephone revenue to rooms revenue or to total revenue are considered secondary units of comparison because small changes in a hotel's average room rate generally have little impact on the charges for telephone service. If the comparable were a different class of hotel, then the potential difference in telephone rates charged would have been taken into consideration.

Other Income

Other income represents revenue derived from sources other than the sale of guest rooms, food and beverages, and telephone service. Depending on the type of hotel and the facilities and amenities offered, other income may include the following revenue items.

- Rents charged for stores, office space, concession space, clubs, and storage;
- Commissions from auto rental, photography, telegrams, and vending services;

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- Concession revenue paid by others for the privilege of operating departments that might otherwise be operated by the hotel itself; gift shops, barbers, and beauty shops are typically concessions;
 - Revenue derived from in-room movie charges;
 - Cash discounts earned from creditors' accounts for payment within the discount period; trade discounts, which are deducted from the cost of goods sold, are not considered other income;
 - Electronic games and pinball machines;
 - Forfeited advance deposits and guaranteed no-shows;
 - Service Charges added to customers' accounts for service that does not have to be paid to service personnel;
 - Interest income from house accounts;
 - Salvage revenue from the sale of old and obsolete items.

Other income is highly sensitive to occupancy and slightly sensitive to food and beverage usage so the appropriate units of comparison would be either a percentage of rooms revenue adjusted for any unusual food and beverage volume or revenue per occupied room. When a hotel has extensive retail or

office rental space, recreational amenities, or other significant sources of other income, a separate revenue category may be used to show the extent of this income.

The following data from the comparable statement provides a basis for projecting the base other income for the proposed Sheraton.

Total other income	\$870,000
Other income per available room	\$3,000
Other income per occupied room	\$12.09
Ratio of other income to rooms revenue	8.4%
Ratio of other income to total revenue	4.8%

Using the ratio of other income to rooms revenue as the unit of comparison, several fine-tuned adjustments would be appropriate. A downward adjustment is needed to reflect the comparable property's more extensive restaurant and banquet space, which should generate more other income than the subject. A slight upward adjustment should also be applied to reflect the sub-

ject's higher average rate, newer facilities, and greater ability to use these advantages to generate proportionately more other income than the comparable.

Based on this analysis, the comparable property's 8.4% ratio of other income to rooms revenue will be adjusted downward to 8.0%. When this adjustment is applied, the following base other income is produced

$$.08 \times \$9,218,000 = \$737,000 \text{ (rounded)}$$

Total Revenue

The base total revenue is calculated by adding the five revenue components.

Rooms	\$ 9,218,000
Food	3,469,000
Beverage	937,000

Telephone	403,000
Other income	<u>737,000</u>
Total	\$14,764,000

Rooms Expense

Rooms expense consists of items relating to the sale and upkeep of guestrooms and public space. Table C.S.5.7 outlines the components of the rooms department expense category according to the Uniform System of Accounts for the Lodging Industry.

Most of the categories comprising rooms expenses appear to be moderately occupancy-sensitive and slightly rate-sensitive, which indicates that a portion of the category is fixed and the remainder is occupancy-variable.

Salaries, wages, and employee benefits account for a substantial portion of the rooms expense. Although a portion of the payroll expense is occupancy-variable in that management can schedule maids, bell personnel, and house cleaners to work only when occupancy requires, much of the rooms payroll is fixed. Front desk personnel, public area cleaners, a housekeeper, and other supervisory staff are needed regardless of the level of occupancy. As a result, salaries, wages, and employee benefits are only moderately occupancy-sensitive.

Commissions represent remuneration to travel agents for booking rooms. Since these charges are usually based on a percentage of rooms revenue, they are very occupancy- and rate-sensitive. Similarly, reservation expenses normally reflect the cost of a franchise reservation system, which typically charges a percentage of rooms revenue.

Other rooms expenses such as laundry, linen, supplies, and uniforms are also somewhat affected by volume and are therefore slightly occupancy-sensitive.

Because rooms expenses are greatly influenced by changes in occupancy and average room rates, the applicable unit of comparison would be either a percentage of rooms revenue or an amount per occupied room.

The comparable statement of income and expense shows the following data which can be used to project the base rooms expense for the proposed Sheraton.

Total rooms expense	\$2,444,000
Rooms expense per available room	\$8,428
Rooms expense per occupied room	\$33.96
Ratio of rooms expense to rooms revenue	23.5%

The percentage of rooms expense to rooms revenue was selected as the appropriate unit of comparison for the appropriate proposed Sheraton. A fine-tuned adjustment is required because the proposed Sheraton has an estimated average room rate of \$148.56 in the base year compared to the comparable property's current average rate of \$144.50. This slight difference should ena-

ble the Sheraton to achieve a rooms expense ratio that is somewhat lower than the comparable property's. The amount of the downward adjustment can be based on the percentage relationship between the average room rates of the comparable and the Sheraton. The average room rate of the comparable divided by the average room rate of the Sheraton shows that the comparable property's rate is 97% of the Sheraton's. Multiplying this percentage by the comparable property's ratio of rooms expense to rooms revenue quantifies the downward adjustment.

$$.235 \times .97 = .229, \text{ or } 22.9\%$$

In addition to this room rate modification, a slight upward adjustment should be made to reflect the fact that the comparable has 40 more rooms than the subject. Based on this analysis, the comparable property's rooms expense ratio is adjusted to 23.0%. The base rooms expense is calculated by multiplying the subject's base rooms revenue by the rooms expense ratio.

$$\$9,218,000 \times .23 = \$2,120,000 \text{ (rounded)}$$

Food and Beverage Expense

The food and beverage department expense consists of costs incurred for the operation of a hotel's food, beverage, and banquet facilities. Although food revenue and beverage revenue are normally projected separately and each has its own categories on a hotel's income and expense statement, the expenses for these revenue sources are combined into a single expense category called food and beverage expense. Table C.S.5.8 outlines the components of the food and beverage department expense category.

The costs of sales, salaries, and wages comprise the major portion of food and beverage expense. These components are moderately to highly food-and-beverage-sensitive in that they vary directly with changes in food and beverage volume. Associated costs for china, glassware, and linen; operating supplies; other operating expenses; and uniforms tend to be either slightly food-and-beverage-sensitive or moderately fixed. Based on this analysis, the appropriate unit of comparison is a percentage of food and beverage revenue. When using this unit of comparison, care must be taken to select comparable properties with similar ratios of beverage to food sales.

Since the profit margin from the sale of beverages is considerably higher than the profit from the sale of food, a hotel with a higher ratio of beverage to food sales should have a lower food and beverage departmental expense ratio. The expense ratio increases as the ratio of beverage to food sales declines.

To quantify the impact of different ratios of beverage to food sales, it is sometimes helpful to analyze the cost of food sold and the cost of beverages sold separately. The three cost components that comprise the comparable property's food and beverage expense category are shown below. This information can be obtained from the supporting schedules, which are normally part of a hotel's financial statements.

Cost of food sold	\$1,565,000	33%*
Cost of beverages sold	271,000	18%**
All other food and beverage expenses	<u>2,873,000</u>	46%***
Total	\$4,709,000	

*Percent of food revenue

**Percent of beverage revenue

***Percent of total food and beverage revenue

The comparable data indicate a food cost of 33% of food revenue, a beverage cost of 18% of beverage revenue, and all other expenses totaling 46% of total food and beverage revenue.

The comparable hotel shows a ratio of beverage revenue to food revenue of approximately 33%, compared to the proposed Sheraton's base ratio of 27%. Because of this difference, one would expect the Sheraton's food and beverage department expense ratio to be higher than the comparable property's 75.0%. The comparable also has higher food and beverage volume on a per-room basis, indicating stronger banquet capture which tends to increase food and beverage profits due to lower costs. (See Table C.S.5.9.)

Based on this analysis, an upward adjustment to the comparable property's food and beverage expense ratios is warranted. Shown below are the adjusted expense ratios that will be used to project the base food and beverage expense for the proposed Sheraton Hotel.

Cost of food sold	34%
Cost of beverages sold	19%
All other food and beverage expenses	47%

The base food and beverage expense for the proposed Sheraton is calculated in Table C.S.5.10.

The ratio of the Sheraton's total food and beverage base expense to its total base food and beverage revenue (\$4,406,000) is 78%, which appears well supported by the comparable data and data from other, similar hotels.

Telephone Expense

Telephone expenses consist of all costs associated with the operation of a hotel's telephone department. For smaller hotels with automated phone systems, the telephone department may be simply an additional responsibility for the front desk personnel. In most large properties the telephone department will have one or more full-time telephone operators to provide the necessary phone service to guests.

Table C.S.5.11 illustrates the various accounts that make up telephone expenses.

The bulk of the telephone expense is attributable to the cost of local and long-distance calls billed by the telephone companies providing this service. Since in-house guests make most of these calls, these expenses are moderately occupancy-sensitive. Unless a particular department has unusually heavy telephone usage, normal telephone usage by hotel employees is also charged to this account. The remaining costs such as salaries and wages, other expenses, and printing are all moderately fixed. Note that according to the *Uniform System of Accounts for the Lodging Industry* (USALI), the rental of telephone

equipment is categorized as a fixed charge, under the rent, taxes, and insurance item. Care should be taken to determine exactly how the hotel accounts for telephone equipment rental or leasing.

Based on this analysis of the components of telephone expense and considering that the cost of telephone service is largely driven by in-house usage that generates telephone revenue, the appropriate unit of comparison would be a percentage of telephone revenue.

The comparable statement of income and expense provides the following data as a basis for projecting the base telephone expense for the proposed Sheraton.

Total telephone expense	\$199,000
Telephone expense per available room	\$687
Telephone expense per occupied room	\$2.77
Ratio of telephone expense to	
Telephone revenue	42.0%

Using the ratio of telephone expense to telephone revenue as the unit of comparison, a slight upward adjustment is needed because the comparable property's telephone department will probably generate more profit than the proposed Sheraton's. This difference can be attributed to the comparable property's higher concentration of meeting and banquet space, which attracts somewhat more outside capture and therefore more telephone usage than is expected for the Sheraton. Greater telephone usage is indicated by the comparable property's telephone revenue per available room, which is \$1,636 compared to the Sheraton's base of \$1,612 (1.5% difference).

Based on this analysis, the comparable property's ratio of telephone expense to telephone revenue is adjusted upward very slightly from 42.0% to 43.4%. With this adjustment, the following base telephone expense is produced:

$$.434 \times \$403,000 = \$175,000 \text{ (rounded)}$$

Other Income Expense

Other income expense covers all the expenses associated with other income revenue. The extent of these expenses depends on the nature of the revenue. For example, if a hotel leases a gift shop to an operator (tenant), the expenses of the hotel will be minimal, consisting only of items such as rental fees and commissions. If, on the other hand, the hotel operates the gift shop, both the revenue and expenses will be higher; the products sold will generate revenue and the cost of goods sold, payroll, and other expenses will be incurred. The appropriate unit of comparison is a percentage of other income (revenue).

The comparable statement of income and expense shows the following data, which provide a basis for projecting the base other income expense for the proposed Sheraton.

Total other income expense	\$413,000
Other income expense per available room	\$1,425
Other income expense per occupied room	\$5.74
Ratio of other income expense to	

Other income revenue	47.5%
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Using the ratio of other income expense to other income revenue as a unit of comparison, an upward, fine-tuned adjustment is required to reflect the premium in the comparable property's other income revenue expressed on a per-available-room basis, relative to the subject property. (See Table C.S.5.12.)

Based on this analysis, the comparable property's ratio of other income expense to other income revenue is adjusted upward from 47.5% to 48.3%. This reflects an adjustment of approximately 1.8% and takes into account both the fixed and variable components of other income expense, which is generally 50% fixed and 50% variable. The following calculation shows the base other income expense for the proposed Sheraton:

$$.483 \times \$737,000 = \$356,000 \text{ (rounded)}$$

Administrative and General Expense

The administrative and general expenses of a hotel include all the managerial and operational expenses that cannot be attributed to a particular department. For example, the general manager might work part of the day solving a problem in the rooms department and spend the remainder of the day on booking an important food and beverage function. It would be difficult to allocate the manager's salary to the individual departments served, so the category of administrative and general is used. Table C.S.5.13 outlines the components of the administrative and general expense category according to the Uniform System of Accounts for the Lodging Industry.

Most administrative and general expenses are relatively fixed. The exceptions are cash overages and shortages; credit card commissions; provisions for doubtful accounts which are moderately affected by the quantity of transactions or total revenue; and salaries, wages, benefits, and security, which are slightly influenced by volume.

In recent years several new categories have been added to administrative and general expenses. The human resources account includes the cost of recruit-

ing, relocating, and training employees. Security expenses cover the cost of contract security for the property and other related expenses. General insurance (also known as liability insurance) was recently moved out of the administrative and general expense category, into insurance. Insurance expense previously consisted of only building and building contents insurance. The elements of the newly defined insurance expense category will be detailed later in this section.

Considering the components of administrative and general expense, the appropriate unit of comparison is the amount per available room, supported by the percentage of total revenue.

The following data from the comparable statement of income and expense provide a basis for projecting the base administrative and general expense for the proposed Sheraton.

Total administrative and general expense	\$1,361,000
Administrative and general expense	
per available room	\$4,692

Administrative and general expense	
per occupied room	\$18.90
Ratio of administrative and general expense to	
total revenue	7.5%

Using the administrative and general expense per available room as a unit of comparison, with support from the ratio of administrative and general expense to total revenue, several fine-tuned adjustments are needed to compensate for various differences between the comparable and the subject property.

As Table C.S.5.14 indicates, the comparable hotel's total rooms, food and beverage, telephone, and other income revenue expressed in dollars per available room is 5.2% higher than that of the proposed Sheraton. The difference between the total revenue per available room of the Sheraton and the comparable is \$62,150 - \$59,056, or \$3,094. Applying the comparable property's ratio of administrative and general expense to total revenue of 7.5%, the additional administrative and general expense incurred by the comparable is estimated to be $\$3,094 \times .075 = \232 . Since the administrative and general ex-

pense category is 70% fixed and 30% variable, only 30% of the \$232 of administrative and general expense, or \$70, would be deducted from the comparable property's per-room cost.

Based on this analysis, the comparable property's administrative and general expense of \$4,692 per available room is adjusted downward to \$4,622. This adjustment of approximately 1.5% takes into account the fixed and variable components of this expense category. The following calculation shows the base administrative and general expense for the proposed Sheraton.

$$250 \times \$4,622 = \$1,156,000 \text{ (rounded)}$$

The base administrative and general expense estimated above equates to 7.8% of the Sheraton's total revenue. Relative to the comparable, this increase in the expense ratio appears normal and provides support for the previous per-available-room calculation.

Marketing Expense

Marketing expense includes all the expenses associated with the advertising, sales, and promotion of a lodging facility. These marketing activities are designed to obtain new customers and retain existing ones. Marketing efforts attempt to create an image for the hotel, develop customer awareness, and stimulate patronage for the property and its facilities. Unlike most expense categories, marketing is controlled almost completely by management. Most hotel operators develop annual marketing plans that detail the expenditures for the coming year. If such a budget is followed, total marketing expenses can be projected accurately.

In establishing a marketing budget, a hotel operator considers many factors. The results of marketing expenditures are not always realized immediately. Depending on the type of advertising and promotion used, the increased patronage generated may not be seen for several months or several years. One advantage of this lag period is that the benefits of a successful marketing campaign tend to continue after the marketing program has ended.

Hotels have unique operating characteristics that must be considered in developing a marketing plan or reviewing the effectiveness of an established marketing effort. Some significant characteristics are outlined below.

- New hotels, especially those catering to the meeting and group segment, need a pre-opening marketing plan that begins before the hotel opens. Most groups book hotels several months to several years prior to their meetings. For business meetings and conferences, accommodations are typically engaged three to six months in advance; large national conventions may choose their sites as many as five years in advance. If a meeting-oriented hotel is not active in the marketplace in time to obtain this pre-booked business, it will lose out to the established competition and suffer low occupancy during its initial years of operation.
- Marketing efforts tend to be cumulative, so the initial marketing budget for a new hotel should allow for greater expenditures, which may be needed to generate the desired impact.
- If an existing property has neglected its marketing efforts for the past several years, a higher-than-normal marketing budget may be needed to maintain or increase current revenues. However, if an aggressive marketing program has been in effect, marketing expenses may be reduced without adversely affecting revenues.

- The marketing budget should be tailored to the specific property and to the nature of the local supply and demand for transient accommodations. Characteristics such as location, visibility, chain affiliation, class, and the types of market segments served can affect the type and amount of marketing expenditures required. The local competitive environment can also influence the amount of money needed to capture the necessary market demand.

Table C.S.5.15 shows the various accounts that comprise marketing expense according to the Uniform System of Accounts for the Lodging Industry.

Marketing expenses can be divided into five subcategories: sales, reservations, advertising and merchandising, other marketing activities, and fees and commissions. Together these activities describe the entire marketing effort of the property, incorporating both internal staff and outside operators.

Costs related to the marketing of guest rooms -- e.g., reservations, travel agency fees, commissions -- have traditionally been charged to rooms department expense. The Uniform System of Accounts for the Lodging Industry states that, "There is a growing recognition that these costs are elements of the overall marketing activity . . . and hotels which recognize these func-

tions as marketing responsibilities should charge these expenses to marketing."

Table C.S.5.15 shows that all categories are budgeted as fixed expenses except fees and commissions, which are occupancy- and rate-sensitive because they are generally based on a percentage of rooms revenue.

Considering the components of marketing expenses, it appears that the appropriate unit of comparison is the amount per available room. Note that in most cases (and in the presentation of this case study), franchise fee costs are calculated separately. These costs are generally 100% variable and dependent on rooms revenue.

The proposed Sheraton is expected to implement an extensive pre-opening marketing effort focusing on meetings and convention patrons who typically book their functions in advance.

The comparable property's marketing expenditures are currently \$2,095 per available room, or approximately 3.4% of total revenue. Since the total revenue per available room of the comparable property is approximately 5.2% higher than the projected base total revenue per available room of the proposed subject property, it is logical to assume that the marketing budget for the subject will be somewhat lower than the comparable property's \$2,095 per available room. Based on this consideration, we have adjusted the comparable expense ratio downward by 5.2%. The calculations for the comparable property's base marketing expense are

$$\$2,095 \times 0.948 = \$1,986$$

$$\$1,986 \times 250 \text{ rooms} = \$497,000 \text{ (rounded)}$$

A \$497,000 base marketing expense budget, which equates to 3.4% of base total revenue, should be adequate for this type of hotel.

(A new hotel generally requires a larger marketing budget during its initial years of operation to penetrate the market effectively, capture its market share, and build occupancy. In the case of the subject property, this particular

competitive market is approaching a point of saturation and, in this competitive environment, a greater-than-normal marketing effort will be required to capture a sufficient level of patronage. This adjustment will be addressed later in the Case Study.)

Franchise Fee

A number of fees are commonly charged as part of a given hotel's affiliation with a hotel chain. The most common on-going expenses are reservation fees, marketing assessments, and royalties. Reservation fees are categorized as a rooms department expense, while the marketing assessment is categorized as a marketing department expense. The royalty portion of the franchise expense represents the fees paid for the use of the company's name, trademarks, and service marks. The royalty is typically considered the equivalent of the franchise fee. The royalty is generally charged as a percentage of rooms revenue. In the case of Sheraton, current royalty rates equate to 5.0% of rooms revenue. The base year franchise fee is therefore calculated as follows.

$$\$9,218,000 \times .05 = \$461,000$$

Property Operations and Maintenance Expense

Property operations and maintenance (PO&M), which was formerly known as repair and maintenance, is another expense that is largely controlled by management. Except for essential repairs needed to keep the facility open and prevent damage, most maintenance items can be deferred for varying lengths of time. Maintenance is an accumulating expense. If a necessary repair is postponed, it does not go away; rather it becomes deferred maintenance, which ultimately must be cured at a later date. When an appraiser projects the income and expenses of an existing lodging facility, the property operations and maintenance expenses over the past several years should be investigated to determine if adequate expenditures were made to keep the facilities in good condition. This investigation should be conducted in conjunction with the physical inspection of the property to ensure that the funds expended took care of the required repairs.

Several factors influence the level of maintenance required for a lodging facility:

- The age of the hotel. Most new hotels are protected for several years by the manufacturer's warranties on new equipment, which reduce PO&M costs during the initial years of operation. As hotels age, maintenance costs tend to escalate rapidly.
- Use of a preventive maintenance system. Some hotel operators adopt preventive maintenance programs, periodically checking and maintaining all the important components of the lodging facility. Preventive maintenance allows management to anticipate possible maintenance problems and correct them early with a minor repair rather than a major overhaul.
- Quality of facilities. The quality and type of the initial construction can have a direct impact on future maintenance requirements. The use of quality building materials and sound construction methods will generally reduce maintenance expenditures over the long term. During the physical inspection, the appraiser should investigate the physical condition and quality of the original construction.

Property operations and maintenance is considered an operating expense and, as such, must only contain components that can be expensed rather than capitalized under IRS regulations. For example, if a table leg breaks, repairing the leg would be considered an expense chargeable to property operations and maintenance. If the table is replaced, it becomes a capital expenditure that would not fall into the property operations and maintenance category. Appraisers account for the capital replacement of items such as furniture and equipment in the reserve for replacement account, which will be discussed in a later section of this chapter.

Table C.S.5.16 outlines the components of the property operations and maintenance expense category.

The items in the property operations and maintenance category are either fixed or very slightly influenced by changes in occupancy and food and beverage usage. Because PO&M is mostly fixed, the appropriate unit of comparison for this expense category is the amount per available room supported by the percentage of total revenue.

The property operations and maintenance expense for the comparable is currently \$2,724 per available room. A downward adjustment to the comparable property's per-room PO&M unit of comparison is needed to reflect the 5.2% higher total revenue per available room of the comparable, relative to the base year projections for the proposed Sheraton. As with previous per-available-room adjustments, the variable component must be factored into the calculation.

First the \$2,724 per room PO&M expense of the comparable is multiplied by the 5.2% difference in revenue ($\$2,724 \times .052 = \142). The resulting figure is then multiplied by 30%, which represents the portion of the PO&M expense category that is considered variable ($\$142 \times .30 = \42). This amount is deducted from the comparable property's per-room PO&M expense to produce the subject's per room base ($\$2,724 - \$42 = \$2,682$). The total base property operation and maintenance expense for the proposed Sheraton is calculated as follows:

$$\$2,682 \times 250 \text{ rooms} = \$671,000 \text{ (rounded)}$$

(As with the marketing expense, an adjustment is generally warranted in the initial years of a maintenance expense forecast for a new hotel. Because wear and tear accrues gradually, and because a new hotel has the benefit of warranties for the first one to three years of operation, maintenance expense tends to require a discount in the first two to three projection years. The basis for this adjustment is set forth later in the Case Study.)

Energy Cost

Energy consumption within a lodging facility typically takes several forms: water and space heating, air-conditioning, lighting, cooking fuel, and other miscellaneous power requirements. The most common sources of hotel energy are electricity, natural gas, fuel oil, and steam. The energy cost account also includes the cost of water and sewer service.

Table C.S.5.17 illustrates the various accounts that make up energy expenses according to the Uniform System of Accounts for the Lodging Industry.

The total cost of energy varies with the source and quantity of fuel used. Electricity tends to be the most expensive source, followed by oil and gas. Although all hotels consume a sizable amount of electrical energy, most properties supplement other, less expensive sources such as gas and oil for heating and cooking.

The cost of electrical energy is a function of the amount of energy consumed and the size of the peak demand. The unit of electrical consumption is the kilowatt hour (kwh), which is measured with a watt-hour meter. To calculate the monthly electric bill, the utility company reads the electric meter and determines the number of kilowatt hours of electricity consumed since the last reading. This amount is multiplied by the appropriate rate schedule to determine the usage charge. The peak demand charge reflects the highest number of kilowatts required by the property during a specific, short time period. The demand is also read monthly from the utility meter, with the additional charge added to the electric bill based on a demand rate schedule.

Utility charges for other sources of energy such as gas and oil are generally calculated based entirely on usage, with no additional expense for demand.

The unit for gas consumption is the therm, which is measured by a gas meter. Oil is delivered to the property and stored in tanks. Bills are rendered upon delivery and the unit of measurement is the gallon.

A large portion of a hotel's energy consumption is relatively fixed and varies little with changes in occupancy. Restaurants, kitchens, public areas, and corridors must be continually lighted and heated or air-conditioned, whether the hotel is full or nearly empty. The energy costs of an additional occupied room (i.e., the cost of a few hours of light, television, heat, or air-conditioning) are minimal.

To forecast the energy costs of a hotel or motel, total energy consumption, the sources of energy used, and utility rates must be estimated.

The amount of energy consumed in heating, air-conditioning, and operating a lodging facility is measured in British Thermal Units (BTUs). By estimating the number of BTUs a hotel or motel will use over a 12-month period and multiplying this amount by a cost factor based on local utility charges, an energy cost forecast can be developed.

A survey performed by The Hospitality, Lodging and Travel Research Foundation, Inc., provides information on the annual BTU energy requirements of hotels in various regions on a square-foot basis. A total of 268 properties with 100,281 guestrooms were surveyed. Table C.S.5.18 shows the results of this survey

If the approximate square footage of the hotel is known, this table can be used to estimate its total annual energy consumption.

To estimate the amount of fuel consumed, a factor is applied to convert the unit of consumption (kilowatt hour, therm or gallon) into the specific number of BTUs. Table C.S.5.19 shows the conversion factors for electricity, gas, and oil.

A portion of the energy consumed by hotels and motels is always in the form of electricity. This source is generally supplemented with either gas or oil, when these alternatives are available and cost-effective. According to another survey performed by The Hospitality, Lodging and Travel Research Founda-

tion, Inc., electrical energy accounts for approximately 40% to 60% of the total BTU consumption for a typical lodging facility, with the supplemental fuels representing the remainder.

Once the total units of consumption are calculated, the utility company and fuel oil dealer can be contacted to determine rates and costs. Utility companies are usually extremely helpful about providing the necessary data, information, and costs to estimate the energy costs for a lodging facility.

The comparable hotel used in developing the base for the proposed Sheraton is located in the Northeast region of the United States, as is the subject, but the comparable is not served by the same utility company as the subject. Therefore the energy expense, particularly the electricity charges of the comparable, may not be appropriate for projecting the Sheraton's base. The data presented in Tables C.S.5.18 and 5.19 will be used to estimate the specific components of energy consumption, taking into account the rates actually charged within the market area.

Table C.S.5.18 indicates that a hotel like the proposed Sheraton located in the Northeast region of the United States would consume approximately 161,807 BTUs per square foot per year. According to the facility recommendations for the subject property, the total building area will be approximately 168,750 square feet (675 square feet per room). Multiplying the number of BTUs per square foot per year by the hotel's total area results in the estimated annual BTU consumption.

$$161,807 \times 168,750 = 27,304,931,250 \text{ BTUs/year}$$

Assuming that 50% of the subject property's energy will come from electricity and 50% from oil, the calculations in Table C.S.5.20 show the projected kilowatt hours of electricity and the gallons of oil that will be required during the hotel's stabilized year of operation.

The current electric rate quoted by the local utility company is \$0.0868 per kilowatt hour, including normal demands charges, seasonal fuel adjustments, and quantity discounts. Oil prices are currently \$1.20 per gallon, including delivery charges and appropriate quantity discounts. Water charges

were estimated at \$112,000. The total base energy expense for the proposed Sheraton can be calculated as follows:

Electricity:

4,000,136 kwh x \$0.0868	\$347,212
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Oil:

97,518 gallons x \$1.20	117,012
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Water:

	<u>112,000</u>
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	\$ 575,224
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Total base energy expense (rounded)	\$ 575,000
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The total base energy expense for the proposed Sheraton Hotel is estimated to be \$2,300 per available room, which is in line with the comparable property's energy expense of \$2,483 per available room.

Management Fee

The management fee expense category covers the basic fee paid to the type of hotel management company that is anticipated to operate the subject property. Some hotel management companies provide management services only, while others offer both management services and a brand-name affiliation. When a management company has no brand affiliation, the property owner can often acquire a franchise to provide the necessary image and recognition. Although most hotel management companies use a fee structure that includes both a basic fee (usually a percentage of total revenue) plus an incentive fee (usually a percentage of a defined profit), the incentive portion is generally subordinated to debt service and does not appear in a forecast of net income before debt service. Although the incentive fee does not lessen the cash flow available for debt service, it does reduce the potential cash flow to equity and therefore must be considered in the valuation process.

Generally the most appropriate way to account for the impact of the incentive fee on the equity component of the investment is to use the net income forecast before debt service and incentive fee, but adjust the equity dividend or yield rate upward to reflect this added cost of management.

Basic hotel management fees are almost always based on a percentage of total revenue, which means that they are 100% variable. The proper unit of comparison is therefore a percentage of total revenue.

The proposed Sheraton will be operated by the HVS Hotel Group, an independent hotel operating company with experience in managing similar hotels. The hotel will have a Sheraton franchise affiliation for brand name identification and a reservation system. The HVS Hotel Group has agreed to operate the subject property for a basic management fee of 3.0%, which is considered typical for this type of operator.

Applying this management fee structure to the base total revenue for the proposed Sheraton Hotel produces the following base management fee estimate:

$$.03 \times \$14,764,000 = \$443,000 \text{ (rounded)}$$

Property Taxes

Property taxes are the taxes paid to local municipalities for government services such as highways, schools, parks, and sanitation service. The purpose of property taxes is to allocate the municipal tax burden on the basis of property value. The higher the value of the property owned, the larger the proportion of the tax burden the owner must assume. The legal term for property tax is ad valorem tax, or a tax "in proportion to value."

Depending on the taxing policy of the municipality, property taxes may be based on the value of the real property alone (real estate tax) or the value of the personal property (personal property tax.)

To properly allocate the tax burden, municipalities employ assessors, who assess, or value, all the taxable real estate within their jurisdictions. Theoretically the assessment bears a definite relationship to market value, so properties with similar market values will have similar assessments and properties with higher or lower values will have proportionately larger or smaller assessments.

Projecting property taxes for an existing hotel is relatively simple. The assessed value is normally a matter of public record and can be obtained by contacting the local taxing authority. Multiplying the assessed value by the anticipated tax rate produces the estimated property tax. However, care must be taken to determine whether the assessed value may escalate at some future time due to increasing real estate values in the local market or a new assessment of the subject property triggered by a recent sales transaction.

Projecting property taxes for a proposed lodging facility is generally more difficult. Since the objective of property assessment is to maintain a specific value relationship among all the properties in a taxing jurisdiction, the best way to estimate the assessed value of a proposed hotel is to use the actual assessed values of comparable hotels. This procedure is similar to the sales comparison approach. The assessed value of the subject property is estimated by comparing it with the assessed values of similar hotels in the market area. The estimate is then adjusted to reflect dissimilarities between the comparable data and the subject.

It is advisable to compare and adjust the assessed values of property improvements only and not the combined value of the land and improvements. Taxing jurisdictions provide separate assessed values for land and improvements. The combination of the two equates to the total property value, which forms the basis for calculating the real estate tax burden.

The assessed value of the land is developed from actual land sales within the jurisdiction. Based on these known land sales, the assessor forms a grid of land values in the jurisdiction indicating where the best parcels with the highest values are located. Values decline as one moves away from this prime area toward less desirable sites. Since each parcel is assessed based on its desirability relative to the surrounding parcels, assessors are extremely reluctant to change one land assessment because this could alter the assessment grid for all the other parcels in the jurisdiction. Consequently, when estimating the assessed value of a proposed hotel, the actual assessed value of the land should be considered unchangeable; only the value of the improvements should be compared and adjusted.

Since only the value of the improvements is to be adjusted, any location-specific advantages or disadvantages of the property should be disregarded because they have theoretically been accounted for in the land assessment. Moreover, the value of hotel improvements also does not include consideration of non-real estate components such as decor, management, franchise, and business value.

If the local taxing jurisdiction uses a personal property assessment, the appraiser must also estimate the value of the facility's furniture and equipment. Since personal property assessment procedures vary widely, assistance from the local assessor is often helpful. In many instances the assessed value of furniture and equipment is based on their actual cost minus the depreciation specified by a mandated depreciation schedule. It is important to have a clear definition of what is considered personal property and what is considered real property.

The taxing jurisdiction in which the proposed Sheraton is located assesses only real property. The current land assessment for the subject property is \$2,800,000, or \$11,200 per room for the 250-room hotel. Information on the

assessed values of competitive hotels in the subject's taxing jurisdiction is presented in Table C.S.5.21.

In Table C.S.5.21, the unit of comparison is the assessed value per room, the key variable tracked by hotel investors and consultants. Depending on the taxing jurisdiction, some assessor's office personnel use value per square foot as the basis for comparison. In either case, the findings rely on the same basic notion of comparison, and would likely result in similar findings.

The hotel with facilities most comparable to the proposed Sheraton is the Hilton Hotel, which has an improvements assessment of \$55,638 per available room. The proposed Sheraton will be newer than the Hilton and feature a more modern design. Based on this comparison, an improvements assessment of \$60,000 per available room will be used for the proposed Sheraton. This per-room assessed value equates to a total improvements assessment for the proposed Sheraton of \$15,000,000 ($\$60,000 \times 250$). Thus the total base year assessment for the proposed Sheraton, assuming it is fully constructed and operational, is estimated as follows:

Land	\$ 2,800,000
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Improvements	<u>15,000,000</u>
Total	\$17,800,000

The current tax rate is \$24.72 per \$1,000 of assessed value. Based on this rate, the base property tax for the proposed Sheraton would be:

$$\$17,800,000 / 1000 = \$17,800.00$$

$$\$17,800.00 \times \$24.72 = \$440,000 \text{ (rounded)}$$

These estimated base property taxes for the proposed Sheraton equate to \$1,760 per available room. Any comparison of the Sheraton's property tax burden with that of the comparable is not appropriate because the comparable is located in another taxing jurisdiction.

Insurance Expense

The insurance expense category consists of the cost of insuring the hotel and its contents against damage or destruction from fire, weather, sprinkler leakage, boiler explosion, plate glass breakage, and other accidents. Furthermore, as of the latest revision of the USALI, it also includes general (or liability) coverage.

Insurance rates for contents insurance are based on many factors, including building design and construction, fire detection and extinguishing equipment, fire district, distance from firehouse, and the area's fire experience. Sometimes an estimate of insurance cost can be obtained from a local insurance agent familiar with the project and area insurance rates. If this is not possible, the appraiser should use insurance expenses derived from comparable lodging facilities expressed on a per-available-room basis.

General (or liability) insurance covers third-party actions involving bodily injury and personal property and is typically based on rooms receipts, meeting and banquet revenue, and food and beverage revenue. Some of the factors that can affect a hotel's liability insurance expense include the size of the meeting, banquet, or restaurant facility, the amount of alcohol served as a

percentage of total food and beverage sales, and the presence of a dance floor in the lounge. Factors that can increase a hotel's liability insurance expense include a high-rise structure, a swimming pool, life safety support systems, and any transportation services provided by the hotel.

The comparable statement of income and expense shows an insurance expense of \$650 per available room. A slight downward adjustment is appropriate to reflect the fact that the proposed Sheraton will have somewhat smaller array of public facilities.

Based on this analysis, the comparable hotel's insurance expense, expressed as a dollar amount per available room, is adjusted downward to \$600 per room. The following calculation shows the base insurance expense for the proposed Sheraton.

$$\$600 \times 250 \text{ rooms} = \$150,000 \text{ (rounded)}$$

Reserve for Replacement Expense

Furniture, fixtures, and equipment are essential to the operation of a lodging facility, and their quality often influences the class of a property. Included in the reserve for replacement expense category are all non-real estate items that are normally capitalized, not expensed.

The furniture, fixtures, and equipment in a hotel are exposed to heavy use and must be replaced at regular intervals. The useful lives of these items is determined by their quality, their durability, and the amount of guest traffic and use.

Periodic replacement of furniture, fixtures, and equipment is essential to maintain the quality, image, and income of a lodging facility. Capitalized expenditures are not included in the operating statement, but they do affect an owner's cash flow. Therefore, an appraisal should reflect these expenses in an appropriate reserve for replacement.

Based on industry experience, a reserve for replacement ranging from 3% to 5% of total revenue is generally sufficient to provide for the timely replacement of furniture, fixtures, and equipment.

A reserve for replacement equal to 4% of total revenue was determined to be sufficient to provide for the periodic replacement of the furniture, fixtures, and equipment of the proposed Sheraton. The following calculation shows the base reserve for replacement expense.

$$\$14,764,000 \times .04 = \$591,000 \text{ (rounded)}$$

Base Statement of Income and Expense

Table C.S.5.22 shows two statements of income and expense. The first is the comparable statement that was selected through the financial comparable selection order. (These figures were shown in Table C.S.5.3.) The second is the base statement of income and expense for the proposed Sheraton, which has been developed in this case study through category-by-category analysis.

This one-year base financial statement uses the subject's stabilized average room rate, deflated to current base year dollars, and income and expense ratios that reflect the level of occupancy actually experienced by the comparable. This profit and loss statement provides the basis for the fixed and variable component relationships developed in the subsequent steps of the analysis.

Step 3. Revise the base

The base revenue and expense categories must be revised to reflect current dollars for each forecast year and the anticipated rate fluctuations resulting from other, non-financial variables (general inflation).

The purpose of Step 3 is to adjust the comparable operating data that make up the subject property's base to reflect forecasted costs stated in the current

dollars anticipated for each particular year. To compute the fixed and variable operating data and forecast relationships for each projected year, an assumed rate (or rates) of inflation is (are) applied to each operating category.

Each revenue and expense category can be affected by different factors which increase or decrease associated costs. For example, future changes in the average room rate are largely influenced by local supply and demand conditions, which may modify general inflation assumptions. Energy costs are usually tied to the prices of fuels, which often move in erratic cycles. Changes in property taxes are often correlated to changes in the local tax base, which means that the rate assumption may be negative in an area that is experiencing rapid new development. Labor costs can change radically if a new union contract is implemented.

The appraiser should look at each revenue and expense category and project an individualized assumption that reflects the market's current view of pricing for the components within the stated category or the category as a whole. Often it is appropriate to apply a single inflation factor to all categories of

revenue and expense data, particularly for the years projected after the property reaches a stabilized level of occupancy. This assumes that all other cost-influencing variables remain stable.

CASE STUDY

Revising the Base

After analyzing the local market for the proposed Sheraton, the appraiser has developed the following change assumptions.

- Energy costs. The local utility company has had difficulty meeting the energy needs of this growing market area. As a result, energy costs have been increasing faster than the area's general rate of inflation. With the recent opening of a new generating plant and the introduction of several efficiency measures, future energy costs should increase at a slower rate. Table C.S.5.23 shows the anticipated future growth in energy costs.

- Property taxes. The market area has recently experienced rapid growth in new commercial and residential development, which has significantly increased the local tax base. Assuming efficient government spending, property taxes are expected to increase as shown in Table C.S.5.24.
- All other categories. An overall inflation assumption of 3% per year will be used to project other categories of revenue and expense. In practice, such an assumption should be supported with adequate market data. (Note that the rooms revenue forecast already reflects the above-inflation growth rates applied to average rate in the first three projection years. The stabilized average rate projected for the sixth projection year was deflated back to base year dollars using the underlying 3.0% inflation rate. Thus, the application of the base inflation rate through the projection period essentially re-inflates the average rate to the level projected earlier in the case study.)

Table C.S.5.25 shows the subject property's base year income and expenses projected out at the rate of inflation forecast for each revenue and expense category. After the stabilized year, all revenue and expenses are assumed to increase at the annual rate of 3%.

Step 4. Estimate fixed and variable percentages for each revenue and expense category

As discussed previously, each category of revenue and expense has a component that is fixed and one that varies directly with occupancy and facility usage. To apply the fixed and variable component approach to forecasting, the fixed and variable percentage of each revenue and expense category must be determined. The ranges of fixed and variable percentages for each revenue and expense category presented as Table 5.1 and subsequent descriptions of the composition of each category can be used as general parameters. Specific fixed and variable percentages are developed by evaluating the operating characteristics of the subject property. The total of the fixed and variable components of each category should equal 100.

CASE STUDY

Estimating Fixed and Variable Percentages

Table C.S.5.26 shows the fixed and variable percentages selected for each revenue and expense category of the proposed Sheraton Hotel.

The fixed food revenue percentage for the proposed Sheraton was set at 30%. This portion of food revenue is generally composed of outside patronage, which includes local banquets and diners in the restaurants. All fixed and variable percentages have been selected to be in line with established ranges.

Steps 5 through 9: Final revenue and expense projection

The actual projection of each revenue and expense category using the fixed and variable calculations is accomplished in Steps 5 through 9. The elements of each step are outlined below.

- Step 5. The fixed component is estimated by multiplying the appropriate fixed percentage by the base revenue or expense category.
- Step 6. The amount of variable change is quantified based on the appropriate index of variability.
- Step 7. The unadjusted variable component is calculated by multiplying the appropriate base revenue or expense category by the variable percentage.
- Step 8. The unadjusted variable component calculated in Step 7 is multiplied by the amount of variable change calculated in Step 6 to produce the adjusted variable component.
- Step 9. The fixed component calculated in Step 5 is added to the adjusted variable component calculated in Step 6 to yield the forecast for the revenue or expense category.

CASE STUDY

Final Forecast of Revenue and Expense – Proposed Sheraton Hotel

The process outlined in Steps 5 to 9 will be applied to forecast the revenue and expense of the proposed Sheraton Hotel. Each revenue and expense category will be illustrated separately. The projection of revenue and expense for the existing Embassy Suites will also be presented following the completion of the Sheraton forecast.

Food Revenue

The fixed component of the food revenue is calculated by multiplying the base food revenue in each projected year by the 30% fixed percentage of food revenue. (Table C.S.5.27).

Food revenue is occupancy-variable in that any revenue above the fixed component is largely dependent on changes in occupancy. The variable change for each projected year is calculated by dividing the projected occupancy by the base occupancy (Table C.S.5.28).

The unadjusted variable component is calculated by multiplying the base food revenue in each projected year by the 70% variable percentage (Table C.S.5.29).

Multiplying the unadjusted variable component by the variable percentage of change attributed to differing levels of occupancy produces the adjusted variable component of food revenue (Table C.S.5.30).

The fixed and adjusted variable components of food revenue for each projected year are added together to estimate total food revenue (Table C.S.5.31).

Table C.S.5.32 shows several pertinent units of comparison.

Beverage Revenue

Beverage revenue is assumed to be 100% variable and directly tied to changes in food revenue. The ratio of beverage to food revenue is 27%. Table C.S.5.33 shows the beverage revenue projection.

Telephone Revenue

Telephone revenue is projected in a manner similar to food revenue (Table C.S.5.34). The variable percentage change is based on occupancy.

Other Income

Other income is projected in Table C.S.5.35.

Total Revenue

The total of all revenue sources is shown in Table C.S.5.36.

Rooms Expense

The rooms expense for the proposed Sheraton is calculated in Table C.S.5.37.

Variable Percent Change for Expense Categories

The variable percent change for expense categories is based on the change in corresponding revenue levels. Table C.S.5.38 shows the bases for calculating the variable percent change for various expense categories.

In Table C.S.5.39, the variable percent change for each expense category is calculated. The subsequent tables show the estimated expenses for the proposed Sheraton. (See Tables C.S.5.40 through C.S.5.51.)

Marketing

The proposed Sheraton Hotel will be new when it opens in Year 3 of the projection. As a result, an upward adjustment to the market expense is warranted in the first two projection years, in order to reflect the costs of establishing a new hotel's market position. In the first projection year, a premium factor

of 1.20 is applied, (reflecting an upward adjustment of 20%). In year two, the premium factor is estimated at 1.10. In year three, the expense is assumed to stabilize with no premium factor. Table C.S.5.44 identifies the associated calculations.

Property Operation and Maintenance

The proposed Sheraton Hotel will be new when it opens in Year 3 of the projection, so its property operation and maintenance expense during the initial years should be lower than the comparable expenses used to develop the base. These savings are reflected by adjusting downward the property operation and maintenance expense for the first two years of operation. In the first two years of operation, downward adjustments of 20% and 10% will be applied, respectively. No adjustments will be made after the fourth projection year. Table C.S.5.46 identifies the associated calculations.

Table C.S.5.52 shows the results of the individual fixed and variable calculations for each item of income and expense. The forecast of income and ex-

penses for the proposed Sheraton Hotel covers the first two years of operation, as well as the stabilized year.

Forecast of Revenue and Expense –Embassy Suites

The methodology associated with the projection of income and expense for an existing hotel is less complex than that associated with a proposed hotel, particularly if the hotel is established and operates at its stabilized level. In the case of the existing Embassy Suites, the subject property's historical income and expense levels are identified in Table C.S.5.53.

Table C.S.5.54 identifies the inflation factors applied to each of the revenue and expense items, from the base year through the third projection year.

Table C.S.5.55 identifies the fixed and variable percentages selected for each revenue and expense category of the existing Embassy Suites.

After applying the fixed and variable calculations detailed in the case of the proposed Sheraton Hotel, the forecast of income and expense for the Embassy Suites through the stabilized year results. Table C.S.5.56 sets forth the results of the calculations.

As indicated, the Embassy Suites overall level of operating efficiency is expected to decline from the first projection year through the third projection year, then improve slightly in the stabilized year. These shifts are a function of the hotel's occupancy rate decline, a dynamic that is itself a function of increased supply.

6. Market Value and the Valuation Process

Hotels and motels are income-producing, investment properties which are periodically bought, sold, financed, refinanced, condemned, assessed, and bequeathed. All of these activities usually require a professional appraisal.

A number of definitions of market value have been formed by the various authorities and entities involved in the practice of appraisal. The Appraisal Institute defines market value as follows:

The most probable price, as of a specified date, in cash, or in terms equivalent to cash, or in other precisely revealed terms for which the specified property rights should sell after reasonable market exposure in a competitive market under all conditions requi-

*site to a fair sale, with the buyer and seller each acting prudently, knowledgeably, and for self-interest, and assuming that neither is under undue duress.*¹

The Uniform Standards of Professional Appraisal Practice (USPAP) defines market value as follows:

The most probable price,

- (i) in terms of cash; or
- (ii) in terms of financial arrangements equivalent to cash; or
- (iii) in such other terms as may be precisely defined; if an estimate of value is based on non-market financing or financing with unusual conditions or incentives, the terms of such financing must be clearly set forth, their contributions to or negative influence on value must be described and estimated, and the market data supporting the valuation estimate must be described and explained.

¹ Appraisal Institute. *The Dictionary of Real Estate Appraisal*, 3rd ed. (Chicago: Author, 1993),

The following definition has been agreed upon by the agencies that regulate federal financial institutions in the United States:

The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

1. buyer and seller are typically motivated;
2. both parties are well informed or well advised, and acting in what they consider their own best interests;
3. a reasonable time is allowed for exposure in the open market;
4. payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.²

The market value of a lodging facility may include the value of its various components, which consists of land; improvements (building); furniture, fixtures, and equipment; inventories; working capital; and any business value. Market value is estimated by applying the valuation process, and the opinion of value is usually communicated in a written appraisal report.

In appraising the market value of real estate, the appraiser considers three approaches:

1. The cost approach, which is sometimes referred to as the summation approach.
2. The sales comparison approach, which may be called the direct sales or market data approach.
3. The income capitalization approach, which is sometimes referred to as the income approach.

Cost Approach

² *Federal Register*, Vol. 55, No. 165, August 24, 1990: 34696.

The cost approach is based on the assumption that an informed purchaser will pay no more for a property than the cost of producing a substitute property with equal utility. When the cost approach is applied, market value is estimated by calculating the current cost of replacing the subject improvements and subtracting an appropriate amount for depreciation.

The cost of replacing a property is generally estimated on a square-foot basis using figures from a construction cost manual published by a recognized cost reporting service. The value of the land as if vacant and available for development is then added to the depreciated replacement cost estimate to yield the estimate of value.

Depreciation is defined as a loss in value caused by one or more of the following factors:

- Physical deterioration-the physical wearing out of the property

- Functional obsolescence—a lack of desirability in the layout, style, and design of the property as compared to a new property serving the same function
- External obsolescence—a loss in value from causes outside the property itself

Appraisal literature recommends using the cost approach for new properties, which have not been affected by the various forms of depreciation, and for unique or specialized improvements such as schools and libraries that have no comparable market or income potential.

The cost approach is seldom used to value existing hotels and motels because lodging facilities are particularly vulnerable to physical deterioration, functional changes, and uncontrollable external factors. Sometimes a hotel can suffer from functional and external obsolescence before its construction is completed. As the building and other improvements age and depreciate, the resultant loss in value becomes difficult to quantify. Estimating the impact of even minor forms of obsolescence may require insupportable judgments that undermine the credibility of the cost approach.

A more significant reason why this approach is not applied to hotels and motels is that its underlying assumptions do not reflect the investment rationale of typical hostelry buyers. Lodging facilities are income-producing properties that are purchased to realize future profits. Replacement or reproduction cost has little bearing on an investment decision when the buyer is primarily concerned with the potential return on equity.

The cost approach can be useful, however, in determining the feasibility of a proposed hotel. When applied in conjunction with the income capitalization approach, the cost approach can verify a project's economic feasibility. If the value obtained by applying the income capitalization approach is equal to or greater than the replacement cost plus the land value, the project is usually considered economically feasible. If, however, the value estimated by the income capitalization approach is less than value derived by the cost approach, the investors should scrap the project, reduce capital costs, or lower their desired return. Moreover, if this is the case, an additional equity investment may be needed to secure sufficient financing. The data used to estimate the replacement cost of property improvements should come from a qualified

source such as an experienced contractor, architect, or engineer, or from a construction cost manual. Land value is established by analyzing sales of comparable parcels or by capitalizing the ground rental.

Table 6.1 shows ranges of typical replacement costs, land values, and soft costs for luxury, standard, and economy accommodations.

Estimating Hotel Land Values

Hotel appraisers are sometimes asked to estimate the value of a total property and then calculate a separate land value. To calculate land value the appraiser investigates the market to find recent transfers of vacant parcels with similar acreage, street frontage, location, and zoning. Any differences between the comparable property and the subject are then adjusted on a grid. In practice, this process can be difficult due to the lack of sufficiently comparable vacant lands sales data and the complexity of estimating the necessary adjustments. An alternative approach is the comparable ground lease meth-

od, based on the premise that the value of land is tied directly to its capacity to generate income at its highest and best use.

Each year a number of hotel transactions are structured using ground leases. Typical rental terms vary from simple flat payments with escalation adjustments to formulae based entirely on gross revenues. To quantify the income attributed to the land alone, the net rental using a percentage of gross revenue is the logical choice.

CASE STUDY

Land Value Estimation

In the following example, the comparable ground lease procedure is used to estimate the land value of the Sheraton in its third year of operation. The following data are given:

Projected rooms revenue	\$11,158,000
Projected food revenue	4,146,000
Projected beverage revenue	1,119,000

Ground leases for eight hotels similar to the subject were found; their rental formulae are set forth in Table C.S.6.1. The estimated ground rental for the subject is calculated using the comparable formulae and the subject's projected revenues.

If all the comparable formulae are assumed to be equally similar to the subject, the average ground rent of \$494,573 would be a supportable estimate of the income attributed to the land. The value of the land can then be calculated by capitalizing the subject's estimated ground rent by an appropriate land capitalization rate.

Ground Rent		Capitalization Rate		Land Value
\$494,573	÷	.085	=	\$5,818,506
			rounded	\$5,800,000

This land value estimate is approximately 17% of the total value estimate for the proposed Sheraton and is within the 10% to 20% range considered normal for a hotel.

The ground lease approach assumes that the hotel represents the highest and best use of the land.

For a more detailed explanation of cost approach methodologies, the reader is directed to the most recent edition of *The Appraisal of Real Estate*, which is published by the Appraisal Institute. This text devotes a chapter to the valuation of real estate via the cost approach. The methods for estimation of the various forms of depreciation described in this text are applicable to hotels.

Sales Comparison Approach

The sales comparison approach is based on the assumption that an informed purchaser will pay no more for a property than the cost of acquiring an existing property with equal utility. When this approach is applied, market value is estimated by comparing the sale prices of recent transactions involving properties similar to the property being appraised. Dissimilarities are resolved with appropriate adjustments. These differences may pertain to transaction characteristics such as property rights conveyed, financing terms, conditions of sale, and market conditions, as well as property characteristics such as location, physical condition, scope of facilities, and market orientation.

The reliability of the sales comparison approach depends on three factors:

- Availability of timely, comparable sales data
- Verification of sales data
- Degree of comparability, i.e., the extent of adjustment needed to account for the differences between the subject and the comparable property.

The sales comparison approach often provides highly supportable value estimates for homogeneous properties such as vacant land and single-family homes when the adjustments are few and relatively simple to compute. For larger, more complex properties such as office buildings, shopping centers, and hotels, the required adjustments are often numerous and difficult to estimate.

For example, assume an appraiser is valuing a motel property by comparing it with a similar motel across the street which was sold last year. In this case the subject differs from the comparable in the following ways:

- Seller will take back purchase-money financing
- Different franchise affiliation
- Better visibility
- More parking facilities
- Larger restaurant and smaller lounge

- Enclosed swimming pool
- Higher-grade furnishings
- Two vanity sinks per guest room

These are just a few of the many potential differences for which adjustments will be needed to make the indicated sale price of the comparable reflect the market value of the subject. In appraising lodging facilities, the adjustment process is often difficult and generally unsupported by market data. The market-derived capitalization rates that are sometimes used by appraisers are susceptible to the same shortcomings inherent in the sales comparison approach. In fact the reliability of the income capitalization approach can be substantially reduced when capitalization rates obtained from unsupported market data are used. This practice not only weakens the final estimate of value, but also ignores the typical investment analysis procedures employed by hotel purchasers.

Although the sales comparison approach is seldom given substantial weight in a hotel appraisal, it can be used to bracket a value or to check the value de-

rived by the income capitalization approach. For example, assume an appraiser is valuing a mid-rate commercial hotel. The appraiser has researched the market and discovered two recent sales. One sale involved a first-class hotel with a value of \$120,000 per room. The other sale was of a mid-rate hotel that was obviously less attractive than the property being appraised; it had a value of \$85,000 per room.

Although a value estimate based on these data would be difficult to support, a range of values within which the final estimate should fall has been established. If the income capitalization approach results in a value indication that is outside this range, the appraiser knows that the data must be re-evaluated. Occasionally appraisers may apply a gross income multiplier or rooms revenue multiplier in the sales comparison approach. If this practice reflects the actions of the market, it can be considered in an appraisal.

Lodging DataBank by HVS International

As in all appraisals, the market must be researched to locate comparable sales with which to support the market value estimate. To help appraisers identify comparable sales of hotels and motels, HVS International has established the Lodging DataBank (LDB), a central clearinghouse of information relating to hotel and motel transactions. The LDB is developed to house facilities information, sales transactions, and development statistics, along with market information and company research pertaining to the hospitality industry. The LDB has compiled data on thousands of hotel sales throughout the United States. The data are categorized by property name, city, and state, and contain pertinent information relating to each transaction.

In order to provide a measure of lodging sales activity, HVS International publishes the "Hotel Transactions Survey" each year. This survey tracks hotel sales throughout the United States with a sales price over \$10 million. Table 6.2 identifies the major hotel sales activity that took place in the United States during the 1990s.

In 1990, the number of transactions and the average price per room were both strong. During the recession of the early 1990s, the number of major hotel transactions declined. Debt and equity financing was unavailable; owners were reluctant to sell at deflated values; and large, full-service hotels were out of favor when compared to more profitable limited-service properties. The picture changed radically in 1994, when the number of transactions more than doubled from the previous year. Full-service hotels were in demand again, and buyers were attracted to the upside potential of acquiring hotels priced at discounts to their replacement costs. By 1998, the average sale price per room returned to \$136,000. In 1999, while hotel sales activity dropped by more than 50% from the previous year, the average price per room continued to climb, achieving a level of \$142,000 per room, the highest point of the decade.

The decline in the number of major hotel sales is a result of several factors in the marketplace. During the buying frenzy between 1995 and 1998, real estate investment trusts (REITs) dominated the acquisitions market. However, with new legislation, coupled with waning stock prices, the buying power of

REITs has decreased considerably. Moreover, lenders have become more hesitant about financing the purchase of lodging facilities. The diminishing RevPAR growth, along with new supply outpacing demand growth, has caused lending institutions to be more cautious in their due diligence processes. Furthermore, whereas buyers are currently available, the prices being offered by sellers often make deals prohibitive. While there are instances where buyers are willing to pay a premium to gain a key asset in a major market, this is not typically the case.

Hotel Valuation Index

A second source of hotel market data is the Hotel Valuation Index (HVI), a sophisticated valuation benchmark showing the indexed market value of a typical hotel. The HVI is tracked on the basis of 47 individual market areas, the United States as a whole, and four rate categories. The index is based on actual occupancy and room rate data supplied by Smith Travel Research, along with local operating performance, projections of supply and demand, and capitalization rates derived by HVS International. The HVI, which was

initiated by HVS International in 1986, reflects trends in market value over time, and assumes a willing buyer and a willing seller rather than a distressed, liquidation-type transaction. While the Lodging DataBank records the actual price paid for a hotel unadjusted for non-market factors such as favorable financing and unusual motivations that could impact the sale price, the HVI represents the property's value under the standard definition of market value.

The HVI assigns the greatest weight to the income capitalization approach, with secondary support provided by the sales comparison and cost approaches. Appraisers recognize that hotel values change over time due to differing earnings expectations and capitalization rates. The HVI was designed to illustrate these changes and to quantify the amount of variance attributable to movements in earnings and the costs of debt and equity capital. The index is intended to represent HVS International's opinion and may not represent actual value trends.

Table 6.3 shows the historical hotel valuation index results for the 47 market areas between 1987 and 1999, and the projected hotel valuation index results between 2000 and 2003. The markets are presented in alphabetical order.

Table 6.4 shows the annual percentage change in each market, over the historical and projected periods.

As indicated in Table 6.4, the overall change in value for a typical American hotel increased by an estimated 24.2% in 1989, declined significantly in 1990 and 1991, then began a streak of value appreciation that continued through 1999. The rate of growth was minimal in 1992, but exceeded 20% in each year between 1994 and 1997. Restricted availability of capital contributed to the rapid deceleration in value growth in 1998 and 1999, despite the fact that national lodging markets continued to experience positive RevPAR growth.

Through 2003, national hotel values are expected to continue to appreciate at modest levels.

The HVI is an indexed value based on the 1987 value of a typical hotel in the United States (1987 = 1.000). Each market area is indexed from this base and

assigned a number showing the value relationship of that market area to the base. For example, in 1987 the index for Miami was 1.7067, which means that the value of a hotel in Miami was approximately 71% higher than that of a similar hotel situated elsewhere in the United States. A more meaningful comparison is indicated by the value difference between hotels in two cities. For example, assume a hotel in Tampa sold in 1997 for \$95,000 per room. In order to calculate what a similar hotel in Orlando would probably command in 1999, the 1999 HVI for Orlando may be divided by the 1997 HVI for Tampa.

<u>1999 Orlando</u>		<u>1997 Tampa</u>		<u>Adjustment Factor</u>
3.2028	÷	1.6919	=	1.893

Then, the 1997 Tampa sale price of \$95,000 per room is multiplied by 1.893 to yield the estimated 1999 sale price for the Orlando hotel.

$$\$95,000 \times 1.893 = \$180,000 \text{ (rounded)}$$

Table 6.5 identifies the top ten markets identified based on the 1999 HVI estimates. Each market's index is then expressed as a ratio to the national average. As indicated, New York City leads the nation with an index that is approximate five times the national average. Among the top ten markets, Las Vegas and Washington, DC are the only non-coastal geographic areas. Generally, the northeastern United States and California appear to be the regions with the highest values.

Table 6.6 identifies the ten markets that grew at the fastest rates between 1991 and 1999, as well as the ten markets with the smallest (or negative) rates of growth over this period. Long Island hotel values appreciated at the fastest rate over the decade, followed by Philadelphia and Detroit. A highly restrictive development environment helped contribute to the Long Island value gains. Between 1991 and 1999, the weakest market areas were Albuquerque, Oahu, and Salt Lake City.

Table 6.7 has the same format as Table 6.6, but it pertains to projected changes in hotel values between 1999 and 2003. California and Florida hotels appear to be particularly well-positioned for value growth in the near term, while the outlook for Salt Lake City, Indianapolis, and Albuquerque is significantly less positive.

HVI Versus Replacement Cost

The U.S. hotel market can also be segmented by class or rate categories. An interesting aspect of the wave of hotel construction that commenced in the last half of the late 1990s was that it occurred by rate category. First, building commenced in the budget segment, followed by the economy segment. As the decade ends, the upscale and luxury segments are the focus of new construction activity. When overbuilding occurred during the 1980s, all segments of hotels were developed concurrently.

Hotels are classified by rate categories, which is based on the quality of facilities and the level or class of service. The U.S. hotel industry uses a number of different conventions to define these rate categories. In tracking hotel values, HVS International classifies the major hotel chains into six rate categories, including 1) Deluxe, 2) Luxury, 3) Upscale, 4) Mid-Scale without Food & Beverage, 5) Economy, and 6) Budget.

HVS International has estimated the respective values per room for these six rate categories, as well as the estimated replacement cost. For the years 1986 to 1999, the values are based on actual occupancies and room rates; for the years 2000 to 2003, projected data was utilized. To illustrate this data, several graphs have been developed showing value per room and the replacement cost. Graphs 6.1 through 6.6 show historic value and cost data from 1986 to 1999, along with projected data to the year 2003. The boxes represent the market value per room; the diamonds show the replacement cost per room.

New hotel development generally occurs when a market exhibits positive feasibility. A hotel project is considered feasible when its market value upon completion is higher than its replacement cost. Negative feasibility results when a new hotel's market value is lower than its replacement cost. The market value and replacement cost graphs illustrate the points in time when feasibility was either positive or negative. In addition, these graphs identify when new hotel development is likely to

commence and when it will start to decline. As the market value line moves upward and passes through the replacement cost line, new hotel projects become feasible, lenders and investors gain interest, and development begins. Savvy hotel developers will anticipate this trend and start their projects before the two lines actually cross. On the downside, new development slows when the market value line falls below the replacement cost line. Historically, new hotel development usually does not begin to slow until the market value line crosses the replacement cost line.

At the point in time when the market value line falls below the replacement cost line, it can be assumed that the segment is probably close to being overbuilt. If the capitalized earnings of a hotel creates a value that is less than its construction cost, then the hotel is likely to have difficulty paying debt service particularly if the property is over leveraged. This is usually a good time for hotel buyers to start acquiring distressed hotels.

When the market value line is above the replacement cost line, existing hotels are overly expensive to acquire and new development becomes feasible. Cash flow is usually sufficient to cover debt service, so lenders jump into the market with funds that enable developers to build new projects. By knowing where you are on the market value versus replacement cost graph, you are able to time your buying, building, and selling activities.

Referring to Graph 6.1, it is apparent that market values in the deluxe market segment essentially equated to replacement cost levels in 1998 for the first time since 1986. Beginning in 1999, market values are expected to exceed replacement costs in this segment, with this trend being maintained throughout the projection period. In Graph 6.2, note that luxury segment market values dropped below replacement cost levels in 1990, but began to exceed replacement costs in 1996. Similar trends are noted in Graph 6.3, which pertains to the upscale segment. Graph 6.4 indicates that new construction in the mid-scale (with no food & beverage facilities) segment has been feasible since 1994, although the margin between market values and replacement costs is narrowing. In the economy market segment, summarized in Graph 6.5, market values are expected to drop below replacement cost levels in 2000. Graph 6.6 indicates that the margin between market value and replacement cost has been consistently narrow since 1990.

Income Capitalization Approach

The income capitalization approach converts the anticipated future benefits of property ownership (dollar income) into an estimate of present value. In hotel-motel valuation, this approach typically involves a discounting procedure.

The income capitalization approach is generally the preferred technique for appraising income-producing properties because it closely simulates the investment rationale and strategies of knowledgeable buyers. The approach is particularly relevant to hotel and motel properties, which involve relatively high risks and are bought for investment purposes only. Most of the data used in the income capitalization approach is derived from the market, which reduces the need for unsupportable, subjective judgments.

The income capitalization approach is applied in three steps.

- Forecast net income for a specified number of years.
- Select an appropriate discount factor or capitalization rate.
- Apply the proper discounting and/or capitalization procedure.

Each of these steps will be discussed in detail.

Forecasting Net Income

Many terms are used to describe the net income that is capitalized into an estimate of value -- *net income before recapture*, *net income before depreciation*, or *net operating income*. All of these terms may be defined as the annual net income before financial charges (e.g., as the recapture of debt service) are deducted. In this book this concept is referred to as net income before debt service (after a reserve for replacement).

In the income capitalization approach, the forecast of net income before debt service is based on two assumptions: the income and expenses forecast are expressed in changing dollars and management is competent.

When the first edition of this book was published in 1978, the use of constant dollars in all hotel projections was recommended. As inflation became a more important consideration to both hotel lenders and investors, however, it became apparent that interest, discount, and capitalization rates were being ad-

justed upward for inflation. Hotel investors now base their purchases on the property's expected future benefits with inflation built in, so it is also built into the other investment parameters.

Forecasts of income and expenses are usually based on competent management because the quality of management plays an important role in the profit potential of a lodging facility. The appraiser must equalize the effects of varying managerial expertise by assuming that the property being appraised will be managed competently. In reality, management quality may be poor, competent, or superior. If the property is currently under poor management, the appraiser is justified in projecting improved operating results based on competent management. If, on the other hand, the subject has superior management, the income and expenses used to estimate market value should reflect less managerial skill -- i.e., lower revenue and/or higher expenses. No such assumption is needed if management is fixed by a long-term contract and would not change in the event of a sale, or if the appraiser is estimating investment value rather than market value. Investment value is the value to a particular investor based on individual financial and managerial require-

ments. It differs from market value in that market value must represent the actions of typical buyers and reflect average, competent management.

The procedure for forecasting income before interest and depreciation has already been described. The appraiser defines the market area, locates and quantifies the demand, and allocates the room nights among the competitive facilities. This procedure provides the information needed to estimate occupancy and average rate. Based on these data, rooms revenue and other sources of income such as food and beverage sales and telephone income can be computed. Expense data can be obtained from actual operating statements if the subject is an existing property, or from comparable properties and national averages if the subject is a proposed facility.

Hotel-Motel Life Cycle

The expected flow of net income before debt service must be assessed to select the appropriate discounting procedure. All real estate investments have

specific life cycles that show the rise and fall of net income over the property's economic life. Most income-producing properties reach their full economic potential relatively quickly. This level may then be maintained for a number of years and then gradually declines as various forms of depreciation erode the property's income.

It generally takes some time for lodging facilities to achieve their maximum level of income. A typical hotel will experience rising occupancy in its first two to four years of operation; often, net income does not cover normal debt service during this period. A stabilized level of income normally is reached sometime between the second and fifth years of operation; this stabilized level represents the property's discounted average net income. The income before debt service will usually rise above the stabilized level for a few years, and then gradually start to decline between the seventh and twelfth years because of physical deterioration and/or functional and external obsolescence. This decline continues over the remaining economic life of the property. The life cycle of a lodging facility is not predetermined, however. It can be length-

ened or shortened depending on how much maintenance and periodic upgrading the owner is willing to do.

Table 6.8 shows net income figures for a hotel over its 40-year life cycle, where a sale of the property is assumed to occur at the end of the 40th year. The income from the 40th year includes both the net income and sale proceeds.

Proposed hotels and motels are appraised as of the beginning of their life cycles, but existing lodging facilities may be appraised at any point in the cycle. By estimating a property's position in the life cycle, the appraiser can project future net income before debt service (if adequate market data are available) and select an appropriate discounting procedure.

Selecting Appropriate Capitalization Rates and Discount Factors

Capitalization rates and discount factors are used to convert expected future income into an indication of value. These rates and factors have an interest component, which reflects the return on capital, and a recapture component, which provides for a return of capital.

Theoretically the interest component can be derived through risk and investment analysis. Starting with a base rate that represents the minimal risk of a safe investment such as a federally insured savings account, the analyst makes a series of upward adjustments to reflect different elements of risk and the investment burden. For example, adjustments might be made for the following factors:

	%
Safe rate (minimum risk)	X
Add for general hostelry risk	1 ₁
Add for management burden	1 ₂
Add for food and beverage risk	1 ₃

Add for rapid functional obsolescence	14
Add for lack of liquidity	15
Add for other elements	<u>16</u>
	Final interest rate

In practice estimating the magnitude of each upward adjustment is too subjective a process to provide a supportable interest rate. Utilizing the analytical expertise of the hundreds of money managers who serve the nation's lending institutions can produce a more reliable rate.

Generally a hotel investment consists of a large amount of mortgage money (55%-75% of the total investment) and a smaller amount of equity capital (25%-45%). Thus 55% to 75% of a hotel project's cost of capital is based on the mortgage interest rate, which implies that 60% to 75% of the capitalization or discount rate is determined by the cost of the mortgage financing. The lender, who considers all possible risks, establishes the interest rate on a hotel mortgage. Obviously the mortgagee is in a more secure position than the eq-

uity investor but, in the event of a foreclosure, the lender may be forced to assume the equity position.

To develop a capitalization rate, the appraiser first researches the cost of the debt component of the investment by evaluating recent hotel financing transactions. To simplify the calculations for appraisal purposes, the interest rate is generally assumed to be fixed rather than variable. Although variable-rate mortgages are used to finance some hotel projects, it is often possible to have another lending entity fix the interest rate at a specific level, which effectively converts the variable payments into fixed payments. For the purpose of illustration, a fixed payment mortgage will be used.

The mortgage provision that has the greatest economic impact on an investment is the mortgage interest rate. To assess the cost of mortgage capital, hotel appraisers must know the current lending rates for hotel mortgage loans. In order to provide appraisers with a reference point from which to estimate the cost of mortgage financing, there is a critical need for reliable, timely estimates of hotel mortgage interest rates.

One procedure for accumulating mortgage rate information is to survey lenders actively making hotel loans. This approach will generally yield results, but the data may not be very accurate for the following reasons:

- It may be difficult to find lenders who are actively lending on hotel projects.
- Even lenders who are active in the hotel lending market do not make hotel loans on a regular basis. Therefore any information obtained for these sources may be dated, particularly in a fast-changing money market.
- Not all lenders are willing to provide data relative to the loans they have made.
- A lender who responds to an interest rate survey may provide information that represents the "asking price" for a hotel loan, rather than the final terms negotiated.

A better, more reliable approach is for the appraiser to obtain accurate information on hotel loans actually originated by lenders. The best source for this type of data is the American Council of Life Insurance. This organization, which represents most of the major life insurance companies, publishes quarterly reports on the hotel mortgages originated by their member companies.

Some of the relevant data available to subscribers include the number of loans made, the total dollar amount loaned, the interest rate, the loan-to-value ratio, and the term of the loans.

The primary disadvantage of using information published by the American Council of Life Insurance is that the data are generally four to six months old by the time they are accumulated and distributed. Thus appraisers need to find a way to update the data continuously. Ideally appraisers could use as an indicator some type of money market instrument with a rate of return (yield) that could be obtained on a daily basis. If the movement of this rate showed a high correlation with hotel mortgage interest rates, then a regression equation could be developed to estimate current hotel mortgage interest rates using the known money market instrument.

HVS International developed such a procedure by running a series of regression analyses. Quarterly mortgage interest rate data supplied by the American Council of Life Insurance were compared with numerous, widely reported money market instruments. Included in this analysis were the prime rate,

the federal funds rate, several stock market rates, different types of bond yields, and variety of similar indexes. As a result of this research, a close mathematical relationship was found between the average interest rate of a hotel mortgage and the concurrent yield of an Average A corporate bond as reported daily in *Moody's Bond Record*.

Table 6.9 shows the annual rates for several of the money market instruments that were evaluated. The first column shows the interest rates for hotel mortgages as reported by the American Council of Life Insurance. The other columns contain the comparative rates including the yields on federal funds, the prime rate, FHA-insured home mortgages sold in the secondary market, the Standard & Poors composite index of 500 stocks, and treasury notes, bonds, and bills of various terms. Table 6.10 shows the annual rates for various corporate bonds. Each table also shows the coefficient of correlation, R , which is derived from the regression analysis used to compare the rates for each money market instrument with the hotel mortgage interest rate. The instrument exhibiting the highest coefficient of correlation (R) provides the most accurate basis for estimating hotel lending rates.

The table shows that Average A corporate bond yields have the highest coefficient of correlation, so this instrument is used to develop the hotel interest rate regression equation. To best reflect the ever-changing money market climate, a more comprehensive regression analysis was run using the A corporate bond yields over an extended period of time. Table 6.11 sets forth hotel mortgage interest rates and corresponding Average A corporate bond yields on a quarterly basis from 1986 until the third quarter of 1999.

Using the regression command from a computer-based spreadsheet, the following regression output was obtained:

Constant	2.4232
Coefficient of correlation	0.8094

This regression output can be used in the following equation, which calculates the mortgage interest rate (Y) based on the actual yield on an A corporate bond (X):

$$Y = 2.4232 + .8094X$$

On December 10, 1999, the yield on an A corporate bond was 7.86%. Substituting this yield for X and solving for Y generates an estimated mortgage interest rate of 8.79%.

Appraisers using this regression approach to update hotel mortgage interest rates should rerun the regression analysis each quarter when the American Council of Life Insurance releases its latest data on hotel mortgage interest rates.

The real strength of mortgage-equity analysis of a real estate investment is the fact that the mortgage component of the discount rate can be readily sup-

ported with current, highly accurate interest rate data. Most investors would agree that it is far better to have 55% to 75% of the mortgage-equity discount rate fully supported than to rely on a totally subjective (and usually outdated) overall discount rate.

Other sources of lending information include local banks and insurance companies, real estate investment trusts, mortgage brokers, and regulatory agencies. By comparing the rates derived from several sources, an appraiser can estimate the mortgage interest components with relative accuracy.

The mortgage recapture component, which represents the return of the investment, is expressed in the rate of amortization. According to the American Council of Life Insurance, hostelry loans have typically been structured to be repaid over a 20- to 30-year term. The recapture component plus the interest component equals the yearly mortgage constant. The annual debt service is calculated by multiplying the mortgage constant by the original loan amount.

The remaining 25% to 45% of a hotel investment is equity money. Like common stock, which entitles the owner to the residual earnings after all expenses, including debt service, have been paid, real estate equity investments normally provide overall returns that are higher than those demanded by the mortgage component. The short-term equity return, which is called the equity dividend rate by appraisers and the cash-on-cash return by hotel investors represents the annual net income after debt service divided by the value of the equity.

The rate of return that an equity investor expects over a 10-year holding period (the long-term return) is called equity yield. Unlike the equity dividend, which is a short term rate of return, the equity yield specifically considers a long holding period (generally 10 years), annual cash flows impacted by inflation, property appreciation, mortgage amortization, and proceeds from a sale at the end of the holding period. Both the equity dividend and the equity yield will produce a good estimate of value when used with the proper technique and supported by appropriate data.

Accurate data relating to equity return expectations are not always easy to obtain. However, since the equity return component represents only 25% to 45% of the discount rate (depending on the loan-to-value ratio), the negative impact of any error is reduced. Hotel appraisers typically rely on two sources of equity data: investor interviews and past appraisals.

To obtain data through investor interviews an appraiser surveys actual or potential hotel investors who have recently made or contemplated an equity investment in a lodging facility. Depending on the type of property being appraised, the appraiser should survey either institutional investors or individual investors. The key to obtaining reliable information from investor interviews is to explain carefully the terms *equity dividend* and *equity yield* before conducting the survey. Many hotel investors may be uncertain as to the exact meaning of terms such as *overall rate*, *capitalization rate*, or *total property yield*. A misunderstanding of terms can distort the appraiser's findings and make the survey invalid. Unless the equity investor has a clear understanding of *equity dividend* or *equity yield*, it is generally best not to include his or her responses in the results of that particular survey. A broad cross section of active buyers

must be surveyed because each is influenced by a variety of factors. The results of a limited sample can produce misleading assumptions. For example, an investor in a high tax bracket may settle for a lower-than-market equity return if the tax shelter benefits of the investment are particularly attractive. Similarly, the opportunity to resell a property after several years for a higher price may induce a buyer to accept a lower equity dividend. Because owning a hotel has a certain amount of status, some buyers may be willing to accept a lower equity return. An active hotel-motel broker, such as a member of the Hotel Motel Brokers Association, can often provide insight into the equity rates of return demanded in the current market. Good sources of equity information include typical hotel buyers and investors, lenders seeking equity participation and joint ventures, and hotel management companies.

The second source of equity return information is readily available to appraisal firms that regularly perform hotel valuations. These appraisers can derive equity dividend and equity yield rates from actual sales of hotels they have recently appraised. This approach differs from deriving an overall rate from the market in that the appraiser uses the actual forecast of income and

expense that was developed in the appraisal immediately preceding the sale.

An illustration of this procedure follows.

Example

Over the past 12 months the hotel appraisal firm of HVS International has appraised more than 1,000 hotels in most major market areas. In each of these appraisals a similar mortgage-equity technique was used to forecast income into the future and discount it back to present value at rates that reflect the cost of both debt and equity capital. In instances where hotels were actually sold subsequent to the appraisal, equity dividend and equity yield rate were derived from the projection of income and expense by excluding any incentive management fees and then inserting the projection into the valuation model. The appraised value was adjusted to reflect the actual sale price merely by modifying the return assumptions. Table 6.12 shows a representative sample of hotel sales that were evaluated in this manner and their calculated equity yield rates.

In addition to quantifying the equity dividend and equity yield, the appraiser sometimes needs to estimate a terminal capitalization rate. When a 10-year forecast is utilized, the terminal, or going-out, capitalization rate is used to capitalize the net income in Year 11 into a reversionary value. It is basically an overall rate that can be estimated with a simple mortgage-equity band of investment using an equity dividend. Note that this rate is applied to the net income before debt service at a point in time 11 years after the date of value; thus it should be adjusted upward somewhat to reflect the fact that the hotel will probably be somewhat closer to the end of its economic life.

Applying the Proper Capitalization or Discounting Procedure

Several procedures can be used to combine mortgage and equity data into a discount factor or capitalization rate that will transform a projected net income estimate into an indication of value. The selection of discount factors and capitalization rates depends on many factors, including the length of the

income projection period, the age of the property and its position in its life cycle, the nature of the mortgage financing, and the sophistication of equity investors. The following discussion describes the various methods for developing discount factors and their proper application in the valuation process.

Discount Each Year's Income Over the Full Life Cycle

The simplest form of valuation begins with a projection of the property's net income before debt service for each year over the full life of the improvements. Each year's net income is then multiplied by the proper present value of a reversion of one factor and all these discounted net income figures are totaled to produce the overall property value.

Capitalize One Stabilized Year's Income

Instead of projecting net income over the entire life of the property, a single, stabilized estimate of net income can be capitalized at an appropriate rate.

The stabilized net income relates to a representative year or, more technically, it is the discounted average net income over the property's economic life. In estimating stabilized earnings, more weight is given to the income expected during the early years of the investment because this income is less affected by discounting.

CASE STUDY

Capitalizing Stabilized Income

The forecast of income and expense developed in the case of the proposed Sheraton indicates that the hotel is expected to stabilize in the third year of its operation. The net income before debt service as of the stabilized year is forecasted to be \$4,691,000. (Note that this is only one method for estimating stabilized net income and the appraiser should ultimately attempt to reflect the actions of typical buyers and sellers for the type of hotel in question.)

Now the appraiser must develop a rate to capitalize the stabilized net income. One procedure for developing a capitalization rate is the band-of-investment (weighted cost of capital) technique. Combining the weighted average of the return demanded by the mortgage position of the investment with the dividend required by the equity component results in a capitalization rate that reflects the basic financial composition of the hotel investment.

Using the previously described mortgage interest rate regression formula and a survey of hotel equity investors, the following mortgage and equity terms were established as appropriate.

Mortgage finance terms:

Interest rate	9.75%
Amortization	25 years
Mortgage constant	10.694%
Loan-to-value ratio	65%
Equity dividend rate	10.0%

The band-of-investment technique is used to develop a capitalization rate that is the weighted average of the mortgage constant and equity yield rate:

	<u>Portion</u>		<u>Rate</u>		<u>Weighted</u> <u>Rate</u>
Mortgage	.65	x	.10694	=	.06951
Equity	.35	x	.10000	=	<u>.03500</u>
			Overall Capitalization Rate	=	.10451

The stabilized net income is divided by the capitalization rate to produce the capitalized value.

$$\$4,691,000 \div .10451 = \$44,885,000 \text{ (rounded)}$$

The value can be mathematically proven through the following calculations:

$$65\% \text{ Mortgage} \quad \$29,175,000 \quad \times \quad .10694 \quad = \quad \$3,120,000$$

$$\begin{array}{rclcl}
 35\% \text{ Equity} & & \underline{\$15,710,000} & \times & .10000 & = & \underline{\$1,571,000} \\
 & & & & & & \\
 & & \$44,885,000 & & & & \$4,691,000
 \end{array}$$

These calculations show that the \$44,885,000 value can be divided into a mortgage portion of \$29,175,000 and an equity portion of \$15,710,000. The yearly mortgage payment, consisting of interest and amortization, is calculated by multiplying the original mortgage balance (\$29,175,000) by the constant (.10694), which results in an annual debt service of \$3,120,000. The equity dividend is established by multiplying the equity investment (\$15,710,000) by the anticipated equity return (.10), which yields \$1,571,000. The annual debt service plus the equity dividend equals the stabilized net income before debt service.

Essentially, the band-of-investment technique works backwards, using the projected stabilized net income to calculate the value that will meet the demands of both the mortgage and equity investors. The components that form the band of investment (mortgage terms and equity requirements) can be well documented and supported. However, the stabilized net income used in this approach does not always reflect the potential for low income during the early years of the investment. To get a better in-

dication of the net income of a property in its initial years, the analyst should project several years of income and expenses.

Another way to derive a capitalization rate is to analyze the terms and conditions of actual market sales. For example, assume an investor has recently purchased a motel for \$3,000,000. An income analysis indicates that the property has a stabilized income before interest and depreciation of \$359,700. The market-derived overall capitalization rate for this sale is:

$$\frac{\$ 359,700}{\$3,000,000} = 11.99\%$$

\$3,000,000

To apply this or any other market-related procedure, the appraiser needs a complete understanding of the transaction and the motivations of the parties involved. Adjustments must be made for any unusual factors so that the capi-

talization rate derived represents normal market conditions. Some questions that the appraiser might ask are:

- Is the stated selling price the market value or has unusual existing or purchase-money financing affected the transaction price?
- Is the price based on existing or anticipated income?
- Is the buyer motivated by special factors such as tax shelter or referral benefits?
- Does the property suffer from deferred maintenance that must be corrected by the buyer?
- Did the transaction involve a willing buyer and a willing seller, both with full knowledge of all circumstances?
- Is the comparable property somewhat similar to the property being appraised with respect to size, location, market, and condition?
- Does the income statement of the comparable contain a reserve for replacement? If it does not, the subject property's projected income before debt service should also exclude a reserve for replacement.

An appraiser is seldom able to obtain enough data on the sale of a comparable hotel to derive a meaningful capitalization rate based on the current market. Simply understanding the motivations of the buyer and the seller requires more than a casual observation of the transaction.

Ten-Year Forecast Using an Equity Yield Rate

To eliminate some of the uncertainties associated with excessively long-term net income projections, and specifically to show the normal occupancy build-up for new hotels, most appraisers use projection periods of three to 10 years.

A 10-year projection using an equity yield rate is similar to an Ellwood valuation approach, in which the yearly income to equity plus an equity reversion is discounted at an equity yield rate, and the income to the mortgagee is discounted at a mortgage yield rate. The sum of the equity and mortgage values is the total property value.

The benefits to the equity position include equity dividends from the net income remaining after debt service during the ten-year projection period and the gain or loss realized from the property's assumed resale. The resale or reversionary benefits include the gain or loss caused by value appreciation or depreciation plus any mortgage amortization. The benefits to the mortgage position are interest and amortization plus repayment of the remaining mortgage balance at the end of 10 years.

Valuation using a 10-year income projection and an equity yield rate is performed in four steps.

- The terms of typical hotel financing are set forth, including the interest rate, amortization term, and loan-to-value ratio.
- An equity yield rate of return and terminal capitalization rate are established.
- The value of the equity component is calculated and added to the initial mortgage amount to produce the overall property value.
- The value estimate is allocated between the mortgage and equity components.

Researching and analyzing typical financing terms has been discussed in detail, so the next step is to establish an equity yield rate of return. Currently a number of hotel buyers base their equity investments on a 10-year equity yield rate projection that takes into account the benefits of ownership such as periodic cash flow distributions, residual sale or refinancing distributions that return any property appreciation and mortgage amortization, income tax benefits, and non-financial considerations such as status and prestige. In addition, the appraiser must estimate a terminal capitalization rate, which will be used to capitalize the Year 11 net income into a reversionary value.

Next, the value of the equity component is calculated by deducting the yearly debt service from the forecasted income, which leaves the net income to equity for each year of the forecast. The net income as of Year 11 is capitalized into a reversionary value. After deducting the mortgage balance as of the end of the tenth year as well as normal legal and selling costs, the equity residual is discounted to the date of value at the equity yield rate. Then the net income to equity for each of the 10 projection years is also discounted. The sum of these discounted values equals the value of the equity component. Adding

the equity component to the initial mortgage balance yields the overall property value.

Because the amount of the mortgage and the debt service are unknown, but the loan-to-value ratio is determined in Step 1, the calculation can be solved either through an iterative process using a computer or with an algebraic equation that computes the total property value.

A complex algebraic equation that solves for the total property value using the 10-year mortgage-equity technique was developed by Suzanne R. Mellen, MAI. This equation is known as the simultaneous valuation formula. A complete discussion of this technique is contained in Mellen's article, "Simultaneous Valuation: A New Capitalization Technique for Hotel and Other Income Properties," which appeared in the April 1983 issue of *The Appraisal Journal*. Material from this article has been incorporated into this chapter.

Finally, the value estimate is proven by allocating the total property value between the mortgage and equity components and verifying that the rates of returns set forth in Steps I and 2 can be precisely met through the forecasted net income.

Each step in the process will be illustrated using the case study example.

Step 1. Determine the appropriate mortgage debt financing terms.

CASE STUDY

Determining Financing Terms

The mortgage interest regression formula indicates a current interest rate of 9.29%. Since the mortgage data reported by the American Council of Life Insurance generally represents investment-grade hotel properties, the appraiser may want to adjust

this rate for the location, type of hotel, age and condition of the property, operating history, local supply and demand trends, management expertise and affiliation, and interest being appraised.

It is assumed that the proposed Sheraton Hotel will have new facilities, good management, and a recognized affiliation. Offsetting these positive attributes is the projected downward trend in area occupancies as additional rooms open in the market and become more competitive. In addition to increased competition, the Sheraton will have to survive the normal buildup of occupancy experienced by all new hotels; many lenders account for this risk factor. Based on the appraiser's analysis, the following mortgage terms would probably be available for the proposed Sheraton.

Interest rate	9.75%
Amortization schedule	25 years
Payments per year	Monthly
Mortgage constant	.10694
Mortgage term	10 years
Loan-to-value ratio	65%

Step 2. Estimate an appropriate equity yield and a terminal capitalization rate.

CASE STUDY

Estimating equity yield and terminal capitalization rates

A survey of hotel investors was conducted to determine their current equity yield requirements. In addition the appraiser reviewed recent appraisals of hotels that sold proximate to the date of value. The range of equity yields for hotels comparable to the proposed Sheraton is 18% to 22%.

Using the same investment criteria employed to determine the mortgage interest rate, a 21% equity yield rate was selected for the proposed Sheraton. The terminal capital-

ization rate can be estimated with the mortgage-equity band-of-investment utilizing an equity dividend rate. The factors that were considered are set forth on pages xxx-xxx – capitalizing stabilized income.

	<u>Portion</u>		<u>Rate</u>		<u>Weighted</u> <u>Rate</u>
Mortgage	.65	x	.10694	=	.06951
Equity	.35	x	.10000	=	<u>.03500</u>
Overall Capitalization Rate				=	.10451

Adjusting the rates to reflect the tenth year terminal capitalization rate produces a going-out rate of 11% for the proposed Sheraton.

Step 3. Estimate overall property value by valuing equity component and adding initial mortgage balance.

By this point in the analysis, the appraiser has made all the necessary subjective and objective decisions. The remainder of the process is purely mathematical. The appraiser must solve an algebraic equation which calculates the exact amount of debt and equity that the hotel will be able to support based on the anticipated cash flow derived from the forecast of income and expense and the specific return requirements demanded by the mortgage lender (interest) and the equity investor (equity yield).

To solve for the value of the mortgage and equity components, the appraiser first deducts the yearly debt service from the forecast of income before debt service; the remainder is the net income to equity for each year in the forecast. The net income as of Year 11 is capitalized into a reversionary value using the terminal capitalization rate. The equity residual, which is the total reversionary value minus the mortgage balance at that point in time and any broker and legal cost associated with the sale, is discounted to the date of value at the equity yield rate. The net income to equity for each of the forecast years is also discounted. The sum of these discounted values equates to the value of the equity component. Since the equity component represents a spe-

cific percentage of the total value, the value of the mortgage and the total property value can be easily computed.

The process described above can be expressed in two algebraic equations, which set forth the mathematical relationships between known and unknown variables. The symbols used to represent these variables are listed below.

NI	Net income available for debt service
V	Value
M	Loan-to-value ratio
F	Annual debt service constant
N	Number of years in projection period
d_e	Annual cash available to equity
d_r	Residual equity value
b	Brokerage and legal cost percentage
P^*	Fraction of loan paid off in projection period

Fp Annual constant required to amortize the entire loan during the projection period

R_r Overall terminal capitalization rate applied to net income to calculate total property reversion (sale price at end of the projection period)

$1/S_n$ Current worth of 1\$ (discount factor) at the equity yield rate

Using these symbols a series of formulas can be derived to express some of the components making up this mortgage-equity valuation process.

$$*P = (f - i) \div (fp - i) \text{ where } i = \text{the interest rate of the mortgage}$$

Debt service. To calculate a property's debt service, the appraiser first determines the amount of the mortgage, which is the total property value (V) multiplied by the loan-to-value ratio (M). Then the amount of the mortgage is multiplied by the annual debt service constant (f) using the following formula:

$$f x M x V = \text{debt service}$$

Net income to equity (equity dividend). The net income to equity (d_e) is the property's net income before debt service (NI) minus the debt service. The following formula represents net income to equity:

$$NI - (F X M X V) = d_e$$

Reversionary value. The value of the hotel at the end of Year 10 is calculated by dividing the net income in Year 11 before debt service (NI'') by the terminal capitalization rate (R_r). The following formula calculates the property's reversionary value in Year 10:

$$NI''/R_r = \text{reversionary value}$$

Broker and legal costs. When a hotel is sold, costs associated with the transaction normally include a broker's commission and attorneys' fees. For a hotel transaction broker and legal costs typically range from 1% to 4% of the sale price. Because these expenses reduce the proceeds to the seller, they are usually deducted from the reversionary value in mortgage-equity analysis. Broker and legal costs (b) expressed as a percentage of the reversionary value (NI''/R_r) can be calculated with the following formula:

$$(b (NI''/R_r)) = \text{broker and legal costs}$$

Ending mortgage balance. The balance of the mortgage at the end of Year 10 must be deducted from the total reversionary value (debt and equity) to isolate the equity residual. A financial formula is used to calculate the fraction of the loan paid off, which is expressed as a percentage of the original loan balance at a particular point in time. The mortgage interest rate (i) is deducted from the annual debt service constant of the loan over the entire amortization period (f) and the result is divided by the annual constant required to amor-

tize the entire loan over the projection period (sub p) minus the mortgage interest rate. The formula is

$$(f-i)/(f_p-i) = P$$

If the fraction of the loan paid off expressed as a percentage of the initial loan balance is P , then the percentage of the loan remaining can be expressed as $1 - P$. Thus, the ending mortgage balance is the fraction of the loan remaining ($1 - P$) multiplied by the amount of the initial loan ($M \times V$). The formula is

$$(1 - P) \times M \times V = \text{ending mortgage balance}$$

Equity residual value. The value of the equity when the property is sold at the end of the projection period (d), is the reversionary value minus broker and legal costs and the ending mortgage balance. The following formula represents the equity residual value:

$$(NI''/R_r) - (b(NI''/R_r)) - ((1-P) \times M \times V) = d_r$$

Annual cash flow to equity. The annual cash flow to equity consists of the equity dividend for each of the 10 projection years plus the equity residual at the end of Year 10. The following formulas represent the annual cash flow to equity:

$$NI^1 - (F \times M \times V) = d_e^1$$

$$NI^2 - (F \times M \times V) = d_e^2 \dots$$

$$NI^{10} - (F \times M \times V) = d_e^{10}$$

$$(NI''/R_r) - (b(NI''/R_r)) - ((1 - P) \times M \times V) = d_r$$

Value of the equity. If the initial amount of the mortgage is calculated by multiplying the loan-to-value ratio (M) by the value of the property (V), then the

equity value will be 1 minus the loan-to-value ratio times the property value.

The formula is

$$(1 - M) V$$

Discounting the cash flow to equity to present value. The cash flow to equity for each of the projection years is discounted to present value at the equity yield rate ($1/S^n$). The sum of all these cash flows is the value of the equity $(I-M)V$.

The following formula calculates equity as the sum of the discounted cash flows:

$$(d_e' \times 1/S^1) + (d_e^2 \times 1/S^2) + \dots + (d_e^{10} \times 1/S^{10})$$

$$+(d_r \times 1/S^{10}) = (I - M)V$$

Combining equations: annual cash flow to equity and cash flow to equity discounted to present value. The final step in the process is to make one, overall equation

that shows that the annual cash flow to equity plus the yearly cash flows discounted to present value equal the value of the equity.

$$\begin{aligned}
 & ((N1' - (f X M X V)) 1/S^1) + \dots ((N1^2 - (f X M X V)) 1/S^2) + \dots \\
 & \dots + ((N1^{10} - (f X M X V)) 1/S^{10}) + \\
 & \dots + (NI''/R_r) - (b(NI''/R_r)) - ((1 - P) x M x V) 1/S^{10} = (1 - M)V
 \end{aligned}$$

Since the only unknown is the property value (V), this equation is easy to solve.

CASE STUDY

Applying the 10-Year Discounted Cash Flow Valuation Formula – Proposed Sheraton

Generally the net income before debt service is projected beyond the stabilized year at an assumed rate of change. By increasing a property's revenue and expenses at the same rate of inflation, the net income expressed as a percentage of total revenue will remain constant and the dollar amount of net income will escalate each year at the rate of change. When a category of revenue or expense is expected to increase at a different rate, the appraiser should reflect this aberration in that specific year's forecast of income and expense. This situation is likely to be the result of contractual changes in a ground rent expense, use of an escalating reserve for replacement percentage, or an expected change in the property tax expense.

The appraiser finds that hotel investors are using inflation rates of approximately 3%. Table C.S.6.2 shows the net income of the proposed Sheraton Hotel projected beyond the stabilized year at a 3% rate of inflation.

Solving for Value Using the Simultaneous Valuation Formula

In the case of the subject property, the following variables are known:

Annual net income	NI	See Table C.S.6.2
Loan-to-value ratio	M	65%
Debt service constant	f	0.10694
Equity yield	Y_e	21%
Brokerage and legal fees	b	3%
Annual constant required to amortize the loan in 10 years	f_p	0.156924
Terminal capitalization rate	R_r	11%

Table C.S.6.3 shows the present worth of a \$1 factor at the 21% equity yield rate.

Intermediary calculations must be made using these known variables before the simultaneous valuation formula can be applied.

The fraction of the loan paid off during the projection period is calculated as follows:

$$P = (0.10694 - .0975) \div (0.156924 - .0975) = 0.158799$$

The annual debt service is calculated as $f x M x V$.

$$0.10694 \times 0.65 \times V = 0.069509V$$

Next, the formula is expressed in terms of V .

$$(2,120,000 - 0.0695V) \times 0.826446 +$$

$$(3,541,000 - 0.0695V) \times 0.683013 +$$

$$(4,691,000 - 0.0695V) \times 0.564474 +$$

$$(4,832,000 - 0.0695V) \times 0.466507 +$$

$$(4,977,000 - 0.0695V) \times 0.385543 +$$

$$(5,126,000 - 0.0695V) \times 0.318631 +$$

$$(5,280,000 - 0.0695V) \times 0.263331 +$$

$$(5,438,000 - 0.0695V) \times 0.217629 +$$

$$\begin{aligned}
 & (5,601,000 - 0.0695V) \times 0.179859 + \\
 & (5,769,000 - 0.0695V) \times 0.148644 + \\
 & (((5,942,000 \div 0.11) - (0.03 \times (5,942,000 \div 0.11)) - \\
 & ((1-0.158799) \times 0.65 \times V)) \times 0.148644) = (1 - 0.65) \times V
 \end{aligned}$$

Then, like terms are combined.

$$\$24,852,044 - 0.363069 V = (1 - 0.65) V$$

$$\$24,852,044 = 0.71307 V$$

$$V = \$24,852,044 \div 0.71307$$

$$V = \$34,852,000 \text{ (rounded)}$$

Proof of Value

The value is mathematically proven by calculating the yields to the mortgage and equity components over the projection period. If the mortgagee receives its 9.75%

yield and the equity yields 21%, then \$34,852,000 is the correct value estimate derived by the income capitalization approach.

The indicated market value is allocated as follows:

Mortgage component	0.65	\$22,654,000
Equity component	0.35	<u>12,198,000</u>
		\$34,852,000

Calculation of annual debt service:

Mortgage component	\$22,654,000
Mortgage constant	<u>0.106936</u>
Annual debt service	\$ 2,423,000 (rounded)

Net income to equity is forecast in Table C.S.6.4.

The residual value to equity at the end of Year 10 is calculated by capitalizing the Year 11 net income as follows:

$$\$5,942,000 \div 0.11 = \$54,018,000 \text{ (rounded)}$$

Sales proceeds	\$54,018,000
Less:	
Broker & legal fees	1,621,000
Mortgage balance	<u>19,057,000</u>
Net sales proceeds	\$33,340,000

The annual cash flow to equity plus the residual equity value is discounted to present value at the equity yield rate of 21 % (see Table C.S.6.5).

The table demonstrates that the equity investor will receive a 21% yield on the equity component if the annual cash flow and reversion take place as projected. Since the

debt service factored into the calculations is based on an interest rate of 9.75%, the required yield for the lender will also be achieved. In addition to the yield to the equity investor, Tables C.S.6.6 and 6.7 show the property yield (15.0%) and the mortgage yield (9.68%).

As indicated in Table C.S.6.7, the mathematically correct yield to the mortgagee calculates to 9.68%. Whereas the mortgage constant and value are calculated on the basis of monthly mortgage payments, the mortgage yield in this proof assumes single annual payments. As a result, the proof's derived yield may be slightly less than the stipulated investment parameter.

Applying the 10-Year Discounted Cash Flow Valuation Formula – Embassy Suites

The preceding methodology applied in the case of the proposed Sheraton has also been applied for the existing Embassy Suites. Table C.S.6.8 shows the net income of the Embassy Suites, projected beyond the stabilized year at a 3% rate of inflation.

Solving for Value Using the Simultaneous Valuation Formula

Because the Embassy Suites is an existing hotel with an established operating history, it is subject to slightly less risk than that associated with the proposed Sheraton. As such, we have applied slightly different investment parameters for this portion of the case study. Specifically, we have applied an interest rate equal to 9.5% and an equity yield rate equal to 20%. Otherwise, the same variables used in the valuation of the proposed Sheraton are considered to be appropriate for the existing Embassy Suites:

Annual net income	NI	See Table C.S.6.8
Loan-to-value ratio	M	65%
Debt service constant	f	0.104844
Equity yield	Y_e	20%
Brokerage and legal fees	b	3%
Annual constant required to amortize the loan in 10 years	f_p	0.15527
Terminal capitalization rate	R_r	11%

Intermediary calculations must be made using these known variables before the simultaneous valuation formula can be applied.

The fraction of the loan paid off during the projection period is calculated as follows:

$$P = (0.104844 - .095) \div (0.15527 - .095) = 0.163306$$

The annual debt service is calculated as $f \times M \times V$.

$$0.104844 \times 0.65 \times V = 0.0681V$$

Next, the formula is expressed in terms of V .

$$(4,103,000 - 0.0681V) \times 0.8333 +$$

$$(3,596,000 - 0.0681V) \times 0.6944 +$$

$$(3,198,000 - 0.0681V) \times 0.5787 +$$

$$(3,532,000 - 0.0681V) \times 0.4823 +$$

$$(3,638,000 - 0.0681V) \times 0.4019 +$$

$$(3,747,000 - 0.0681V) \times 0.3349 +$$

$$(3,860,000 - 0.0681V) \times 0.2791 +$$

$$(3,975,000 - 0.0681V) \times 0.2326 +$$

$$(4,096,000 - 0.0681V) \times 0.1938 +$$

$$(4,219,000 - 0.0681V) \times 0.1615 +$$

$$(((4,344,000 \div 0.11) - (0.03 \times (4,344,000 \div 0.11))) -$$

$$((1 - 0.163306) \times 0.65 \times V)) \times 0.161506 = (1 - 0.65) \times V$$

Then, like terms are combined.

$$\$21,849,904 - 0.373545 V = (1 - 0.65) V$$

$$\$21,849,904 = 0.72355 V$$

$$V = \$21,849,904 \div 0.72355$$

$$V = \$30,198,000 \text{ (rounded)}$$

Proof of Value

The value is mathematically proven by calculating the yields to the mortgage and equity components over the projection period. If the mortgagee receives its 9.5% yield and the equity yields 20%, then \$30,198,000 is the correct value estimate derived by the income capitalization approach.

The indicated market value is allocated as follows:

Mortgage component	0.65	\$19,629,000
Equity component	0.35	<u>10,569,000</u>
		\$30,198,000

Calculation of annual debt service:

Mortgage component	\$19,629,000
Mortgage constant	<u>0.104844</u>
Annual debt service	\$ 2,058,000 (rounded)

Net income to equity is forecast in Table C.S.6.9.

The residual value to equity at the end of Year 10 is calculated by capitalizing the Year 11 net income as follows:

$$\$4,344,000 \div 0.11 = \$39,491,000 \text{ (rounded)}$$

Sales proceeds	\$39,491,000
Less:	
Broker & legal fees	1,185,000
Mortgage balance	<u>16,423,000</u>
Net sales proceeds	\$21,883,000

The annual cash flow to equity plus the residual equity value is discounted to present value at the equity yield rate of 20 % (see Table C.S.6.10).

The table demonstrates that the equity investor will receive a 20% yield on the \$10,569,000 investment if the annual cash flow and reversion take place as projected. Since the debt service factored into the calculations is based on an interest rate of 9.5%, the required yield for the lender will also be achieved. In addition to the yield to the equity investor, Tables C.S.6.11 and 6.12 show the property yield (13.8%) and the mortgage yield (9.4%).

One advantage of valuing a hotel with a 10-year forecast using an equity yield rate is that the projection period can specifically show the build-up of net income over the assumed holding period used by most investors. Another benefit is that the value of the mortgage component can be easily substantiated in the market by analyzing current and comparable mortgage terms for similar lodging facilities; assuming a 65% loan-to-value ratio, 65% of the property's market value can be supported.

The difficult part of this approach is estimating the proper equity yield rate. Although many hotel owners have become more sophisticated, they do not always understand the meaning of equity yield from an appraiser's point of view. Some still think in terms of cash on cash or equity dividend and hold that the reversionary benefits of property appreciation and mortgage amortization are inherently considered in an equity dividend, rather than specifically incorporated into a yield calculation. Consequently, care must be exercised in obtaining yield rates from investors to ensure that their responses represent yields, not dividends.

Even with good data and support, estimating a hotel equity yield rate is a subjective process based largely on judgment. On the other hand, the estimate of a hotel mortgage interest rate can be well documented using the interest rate regression formula described previously and published life insurance industry data. Although an element of subjectivity remains, the value of the mortgage component is largely objective. Thus the capitalization technique produces results that are approximately 65% objective and 35% subjective.

tive. In contrast, a 10-year forecast using a discount rate produces results that must be considered largely subjective and does not reflect the investment analysis procedures currently used by typical hotel buyers.

Ten-Year Forecast Using a Discount Rate

Some large institutional investors who purchase hotels on an unleveraged basis (with no debt capital) will apply an overall discount rate to the 10-year forecast of net income before debt service. To this discounted cash flow they add the discounted value of the property at the end of the tenth year, which is derived by capitalizing the net income in Year 11 at the terminal capitalization rate.

CASE STUDY

Applying a Discount Rate to the Ten-Year Forecast

In the following example, data associated with the proposed Sheraton portion of the case study is used to illustrate 10-year forecasting using a discount rate. Table C.S.6.13 sets forth the associated data and assumptions.

The reversionary value is calculated by capitalizing the net income before debt service in Year 11 at the terminal capitalization rate.

$$\$5,941,000 \div 0.11 = \$54,009,091$$

Sales proceeds	\$54,009,091
Less: brokerage & legal	<u>1,620,273</u>
Net sales proceeds	\$52,388,818

The net income before debt service for each year plus the reversionary value (net sales proceeds) is discounted to present value at the 15% discount rate. (See Table C.S.6.14)

The 10-year forecast using a discount rate does not consider the impact of mortgage debt, leverage, and the specific equity demands of typical hotel investors. Furthermore, it requires a subjective estimate of the entire discount rate, not just the equity portion as in the equity yield approach. Since very few hotel investors purchase lodging facilities on an unleveraged basis, documented support for the discount rate is usually either unavailable or inconclusive.

Ten-Year Forecast Using a Debt Coverage Ratio

The Ten-Year Discounted Cash Flow Valuation Formula assumes a mortgage-equity relationship and a fixed loan-to-value ratio. The Ten-Year Forecast Using a Debt Coverage Ratio also assumes a mortgage equity relationship, but utilizes a specific debt coverage ratio as of a certain year.

The debt coverage ratio is the ratio of the net income available for debt service as of a specified year divided by the debt service. Thus, if a hotel's net income as of the third year is projected to be \$280 and the debt service is \$187, the debt coverage ratio is:

$$\$280/\$187 = 1.5$$

This debt coverage ratio assumption forms the basis of valuing the hotel's mortgage component. Once the value of the mortgage component has been estimated, the value of the equity component can then be quantified. The overall property value is therefore the value of the mortgage component plus the value of the equity component.

The initial mortgage balance can be obtained by multiplying the debt coverage ratio by the mortgage constant and dividing this number into the net income before debt service. Assuming a 9% mortgage with a 25-year amortization schedule produces an annual mortgage constant of .1007. The initial mortgage balance or the value of the mortgage component can be calculated as follows:

$$\$280 / (1.5 \times .1007) = \$1,854$$

The next step is to value the equity component. Equity value equals the annual cash flows to equity (equity dividends) plus the equity residual discounted to the present value by the equity yield rate.

The annual cash flow to equity is the net income available for debt service minus the annual debt service. The annual debt service is calculated by multiplying the initial mortgage balance by the mortgage constant:

$$\$1,854 \times .1007 = \$187$$

The annual cash flow to equity is calculated in Table 6.14.

The present value of the cash flows to equity is the cash flow to equity multiplied by the appropriate present value factor. Table 6.15 identifies this calculation, using an 18% discount rate (equity yield).

The equity residual is the reversionary value, less the ending mortgage balance. The reversionary value is calculated by taking the projected 11th year's net income before debt service and capitalizing it by the terminal capitalization rate. From that capitalized value the selling expenses such as brokerage and legal are deducted. In this example, an 11% terminal capitalization is used with selling expenses equating to 2% of the capitalized value. Table 6.16 shows these calculations.

The equity residual can then be determined by deducting the ending mortgage balance which, in this example, works out to \$1,534. Table 6.17 shows this calculation.

The present value of the equity residual is calculated by multiplying the equity residual by the appropriate present value factor. Table 6.18 shows this calculation.

The value of the equity component is the present value of the cash flows to equity plus the present value of the equity residual as shown in Table 6.19.

The overall property value is the value of the mortgage component plus the value of the equity component. Table 6.20 shows this calculation.

Many lenders base their mortgages on a predetermined debt coverage level as of a certain year. This valuation approach works well for those types of investment decisions.

CASE STUDY

Applying a Debt Coverage Ratio to the Ten-Year Forecast

In the following example, data associated with the proposed Sheraton portion of the case study is used to illustrate ten-year forecasting using a debt coverage ratio, assuming the mortgage lender for the proposed Sheraton wants to base the amount of the mortgage on a debt coverage ratio of 1.46 as of the 2nd year of operation. Based on this assumption, the initial mortgage balance can be obtained by multiplying the debt coverage ratio by the mortgage constant and dividing this number into the net

income before debt service. Assuming a 9.75% mortgage with a 25 year amortization schedule produces an annual mortgage constant of .106936. Using the second year's net income available for debt service the initial mortgage balance or the value of the mortgage component can be calculated as follows:

$$\$3,541 / (1.46 \times .106936) = \$22,680$$

The next step is to value the equity component. Equity value equals the annual cash flows to equity (equity dividends) plus the equity residual discounted to the present value by the equity yield rate.

The annual cash flow to equity is the net income available for debt service minus the annual debt service. The annual debt service is calculate by multiplying the initial by the mortgage constant:

$$\$22,680 \times .106936 = \$2,425$$

Table C.S.6.15 identifies how the annual cash flow to equity is calculated.

The present value of the cash flows to equity is the cash flow to equity multiplied by the appropriate present value factor. Table C.S.6.16 assumes a 21% discount rate (equity yield).

The equity residual is the reversionary value, less the ending mortgage balance. The reversionary value is calculated by taking the projected 11th year's net income before debt service and capitalizing it by the terminal capitalization rate. From that capitalized value the selling expenses such as brokerage and legal are deducted. In this example, an 11% terminal capitalization is used with selling expenses equating to 3% of the capitalized value. Table C.S.6.17 shows these calculations.

The equity residual can then be determined by deducting the ending mortgage balance, which in this example works out to \$19,079. Table C.S.6.18 shows this calculation.

The present value of the equity residual is calculated by multiplying the equity residual by the appropriate present value factor. Table C.S.6.19 shows this calculation.

The value of the equity component is the present value of the cash flows to equity plus the present value of the equity residual, as shown in Table C.S.6.20.

The overall property value is the value of the mortgage component plus the value of the equity component. Table C.S.6.21 shows this calculation.

Conclusion

Of the three valuation approaches available to the appraiser, the income capitalization approach generally provides the most persuasive and supportable conclusions when valuing a lodging facility.

In the selection of a discounting or capitalization procedure, the appraiser considers the market and the techniques used by hotel buyers and sellers in reaching their investment decisions. In the past, various procedures have been employed by hotel investors; their selections have usually been based on factors such as the quality and reliability of the available data, economic conditions, inflation, the availability of financing, and risk. A brief summary of each technique follows.

- Discounting each year's income over the investment's full life cycle. This technique is rarely used because a 40-year forecast of income and expenses is unreasonably long and there is no comparable or support data to derive a 40-year discount rate.
- Capitalize one stabilized year. This simple technique works well for an established property that is expected to maintain a stable level of occupancy and net income in the future. It is difficult, however, to establish an appropriate stabilized net income for hotels with occupancies that are increasing or decreasing.
- Ten-year forecast using an equity yield rate. This technique is complicated but it most accurately reflects the actions of typical hotel buyers, who purchase

properties based on their leveraged discounted cash flow. Often the mortgage component can be fully supported by recent market transactions, so 55% to 75% of the discount rate can be substantiated.

- Ten-year forecast using a discount rate. This technique is simple but less reliable because the derivation of the discount rate has little support. Moreover, it is difficult to adjust the discount rate for changes in the cost of capital.

Regardless of the technique applied, the estimate of market value should represent the actions of hotel investors and provide a basis for comparing investment alternatives.

Developing capitalization rates and applying the proper discounting procedure are crucial to the income capitalization approach. Appraisers should always try to mirror the rationale and actions of typical buyers and sellers in the current market. Although some of the capitalization and discounting procedures described in this chapter were criticized for being overly subjective and contrary to present investment thinking, the analyst should remember the axiom of change. The discounting procedure favored by hotel buyers this

year may not be suited to market and investment conditions next year. Appraisers must constantly reevaluate and update their appraisal procedures to reach supportable estimates of market value.

7. Hotels and Motels as Investments

Like most real estate investments, hotels and motels consist of land and improvements (e.g., buildings, permanent equipment, parking area, swimming pool). Commercial land value generally represents 10% to 20% of total property value. Hotels and motels are unique real estate investments because they contain many elements not typically found in income-producing properties. These characteristics affect the risks and the benefits associated with hotel investments and demonstrate the highly specialized nature of this type of real estate.

Unique Investment Elements

A hotel derives value from certain unique characteristics.

1. Furniture, fixtures, and equipment. This category includes guestroom, dining room, and lounge furnishings; kitchen equipment; front office and administrative equipment; and items of decor. Together these elements can account for up to 25% of total property value.
2. Retail business. Hotels require specialized, highly trained management. Because they are labor-intensive, employee wages and benefits may consume as much as 40% of gross revenues.
3. Inventories and working capital. Lodging facilities may have large inventories of expendable items such as linen, paper supplies, cleaning materials, food, and beverages. Working capital is used for house banks and a petty cash fund and to finance accounts receivable.

When valuing a hotel or motel, the appraiser must accurately define the elements to be included in the final value. For example, if the purpose of the appraisal is to estimate the value of the real estate alone, appropriate adjustments must be made to separate out the value of the furniture, fixtures, and equipment; the business value; and the cost of the inventories and working capital. All of these elements influence the risks, benefits, and value of a hotel investment.

Furniture, Fixtures, and Equipment

Furniture, fixtures, and equipment, or FF&E as they are called in the trade, are essential to the operation of a lodging facility and their quality often influences the class of a property. Included in this category are all non-real estate items that are normally capitalized, not treated as expenses.

A hotel's furniture, fixtures, and equipment are exposed to heavy use and must be replaced regularly. The useful lives of these items are determined by their quality, durability, and the amount of use. (See Table 7.1.)

The periodic replacement of furniture, fixtures, and equipment is essential to maintain the quality, image, and income of a lodging facility. Capitalized expenditures are not included in the hotel's operating statement, but they do affect an owner's cash flow, so an appraisal should account for these expenses with an appropriate reserve for replacement.

A reserve for replacement allowance can be estimated on a straight-line basis or as a percentage of the gross revenue. To estimate a reserve with the straight-line method, the estimated future replacement cost of the item is divided by its weighted-average useful life (usually 8 to 10 years). Alternatively, a replacement reserve of 4% to 5% of the gross revenue can be used to reflect both the quality of the facilities (average rate) and the use they receive (occupancy level).

In some appraisals, the value of the FF&E must be separated from the value of the real estate.¹ This separation is required in condemnation proceedings and property tax assessments, and in situations in which a lender is unable to use chattel as mortgage security. The procedure is to deduct the income attributed to the personal property from the hotel's overall net income by multiplying either the current value or the replacement cost of the FF&E by factors that represent returns on and of the FF&E. A return on the FF&E reflects the owner's cost of capital and is used with the current market value of the

¹ Members and affiliates of the Appraisal Institute should adhere to Standards Rule 1-2(e), which pertains to the consideration of FF&E in an appraisal. In certain cases, departures from the standards are permitted. Separate valuation of such items may be required when they are significant to the overall value or necessary to fulfill the purpose of the appraisal.

FF&E in place. A return of the FF&E is the same as a reserve for replacement and is based on the replacement cost of the items and their estimated useful lives.

Retail Business Value

A lodging facility is a labor-intensive retail business that depends on customer acceptance and highly specialized management skill. The tenants of an apartment or office building sign leases for one or more years, but a hotel experiences a complete turnover of patronage every two to four days. A bad reputation spreads rapidly and can have an immediate impact on occupancy.

Separating the value of a hotel's business from the value of its real estate is a controversial topic. It is difficult to determine exactly where the income attributed to the business stops and the income from the real estate begins. In an appraisal assignment in which the market value encompasses the entire property, the business is part of the going-concern value and is not separated

from the real estate. However, some insurance laws, condemnation proceedings, and property tax assessments require a “pure” real estate value, which necessitates treating business value as a separate entity.

Methodologies associated with the separation of business value from total property value have been evolving over time; many different theories exist. For further information on the separation of business value, the reader is directed to the latest Appraisal Institute publications on the topic.

Inventories and Working Capital

In most instances, inventories and working capital are not included in an estimate of a lodging facility’s market value. At the time of closing, any inventory on hand is normally “purchased” by the buyer on a dollar-for-dollar basis, just as fuel oil, taxes, and insurance are adjusted. Working capital is withdrawn by the seller and replaced by the buyer. This process is repeated

when the property changes hands again, and the result is full recovery of all monies invested in working capital.

If an appraiser wishes to include inventories and working capital in the property value, an appropriate amount must be added to the capitalized net income.

General Risks and Benefits

This chapter has described three unique hotel characteristics and their potential effects on value. To develop an appropriate equity return rate, however, the appraiser must also consider several general factors related to hotel investments. The potential disadvantages of a hotel investment are competency of management, long start-up periods, food and beverage risks, rapid functional obsolescence, susceptibility to external obsolescence, and a lack of liquidity.

- Competency of management. The quality of a lodging facility's on-site management has a direct effect on the property's economic viability and value. Competent hotel management can be measured by the ability to maximize long-term revenues while minimizing long-term expenses. Any variance from this definition of competence may have a significant impact on the forecast operating results.
- Long start-up periods. Lodging facilities usually experience a one- to four-year start-up period before they reach a level of income that can support normal financing and equity requirements. Usually hotel investors are advised to budget an adequate cash reserve to carry the property until its occupancy and room rate are sufficient to produce a profit.
- Food and beverage risks. The food and beverage department carries high risk, yields low profits, and is a source of constant aggravation for most operators. Opening early for breakfast, providing room service, and extending coffee shop hours are essential for competitive reasons, but these practices erode profits for many hotels. Most operators see the food and beverage department not as a profit center, but as a necessary service provided strictly for the guests' convenience. Except for a few, high-volume banquet operations, most hotels and motels lose money on food and beverages when all expenses (administrative

and general, marketing, energy costs, property operations, and maintenance) are properly allocated. This potential income loss constitutes a major risk factor and can adversely affect a hotel's market value.

- **Rapid functional obsolescence.** The optimal layout, design, construction materials, and amenities of lodging facilities are constantly changing. Over the past 30 years industry standards have changed from exterior corridors to interior hallways, black-and-white televisions to color televisions (often with in-room movies), outdoor pools to enclosed health spas, live entertainment to sports bars, large ballrooms to conference centers, and hand accounting to sophisticated property management systems. With each innovation existing properties must either alter their facilities or suffer functional obsolescence. Often correcting functional deficiencies is not economically justified, and the property gradually becomes less competitive. The proliferation of new lodging products and segmentation within the market area tend to amplify the functional obsolescence of older properties. The resulting decline in competitive standing constitutes a significant risk factor for hotel investors.
- **Susceptibility to external obsolescence.** The events of the late 1980s and early 1990s demonstrated how external factors can adversely affect the lodging industry. Overbuilding and economic recession caused area occupancies to decline. While capacity increased, businesses curtailed commercial travel and

individuals had less disposable income available for leisure travel. The increased use of air transportation, more sophisticated communication systems, and competition from new forms of accommodations (such as time share condominiums and corporate housing) are all examples of macro factors that can cause economic obsolescence.

On a micro level, many motels constructed during the 1950s were forced out of business by the changeover from U.S. highways to modern interstates. The deterioration of downtown areas through the 1970s and 1980s prompted many restaurants, lounges, and other places of entertainment to move to the suburbs. Uncontrollable factors such as these are a constant risk for lodging facilities. In most cases external obsolescence cannot be cured and the affected property experiences an immediate drop in value.

- Lack of liquidity. The sale of a lodging facility is a highly specialized transaction. Because the market is limited to comparatively few potential buyers, generating interest may take three months or longer. Once a prospective purchaser is found, many time-consuming details must be worked out. Financing and the transfer of licenses, leases, service contracts, and franchise agreements must

be arranged, equity and tax shelter programs must be structured, and appraisals and surveys must be performed. Often the seller is forced to maintain an interest in the property by taking back purchase money financing.

There are, of course, aspects of hotel investments that help offset their negative features. The two most important advantages of such investments are favorable tax treatment and the potential for large profits.

- Favorable tax treatment. Much of the personal property within a hotel can be depreciated over a short period of time. As a result, hotels and motels generate tax shelter benefits and are attractive for syndication.
- Potential for large profits. Once the income from a lodging facility reaches the breakeven point, profits tend to increase rapidly. As this text has demonstrated, a large portion of hotel expenses are fixed and do not vary significantly with occupancy. Thus profits increase with occupancy.

The financial returns from a hotel investment are derived from the annual cash flow after debt service (equity dividend), mortgage amortization, and the potential value appreciation realized when the property is sold. Over the

past 10 years, the perceived equity returns demanded by hostelry investors have ranged from a high of 20% to 25% to a low of 12% to 20%. Equity returns are influenced by a variety of circumstances, including the condition of the market, general real estate and hotel-motel risk factors, individual property risk factors, supply and demand ratios, the availability and cost of financing, and tax benefits.

Equity build-up through mortgage amortization and value appreciation are also important investment considerations. These two factors form the basis of the Ellwood method of valuation, which employs the concept of equity yield. Today's hotel investors are increasingly sophisticated, and discounted cash flow analysis, before- and after-tax equity yield calculations, and other computer techniques have become well-established procedures.

As we head into a new century, the valuation and analysis of hotel investments are bound to change as evaluation techniques become more sophisticated and data become more abundant. We are hopeful that our ability to

forecast future economic results will also be enhanced and help to reduce the risk inherent in lodging facility investment.



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Steve Rushmore is the Founder of HVS and the **Creator of the Hotel Valuation Methodology**. He has authored eight textbooks on hotel valuation and investing, along with over 350 articles on similar topics. In addition, Steve has taught thousands of industry professionals around the world. His online course- "**How to Value a Hotel**" is used by the leading hotel schools and consulting organizations. Contact Steve at steve@steverushmore.com or visit his website www.steверushmore.com

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