

Chapter 8 Appendix

8A Discussion of Other (Specialty) Property Types

In the current Chapter, we discussed the structural approach to real estate. However, we focused on real estate's main “food groups”: office, apartments, retail, and industrial warehouse space. However, there are many other specialized real estate property types that deserve at least some attention. Next we will discuss supply and demand for (1) lodging, (2) self-storage units, (3) biotech/life science, (4) data storage facilities, and (5) parking.

8A.1 Lodging

In the United States, the tourism industry is currently the third largest retail industry, behind automotive and food stores. Some local economies depend very much on tourism and business conferences, i.e., Orlando, FL; Las Vegas, NV; Honolulu, HI; New Orleans, LA; Florence, Italy; and Venice, Italy. In contrast, others have a heavy tourist component in their local economy, like Paris, France, Washington D.C., San Diego, CA, Rome, Italy, Istanbul, Turkey, and the list goes on. About one-fourth of all travel is vacation-related, while one-fifth is personal or family-related. The balance is business or convention-oriented.

By definition, a lodge, hotel, or Inn is any fee-based sleeping accommodation away from home. Lodges may also include food, entertainment, and various services and activities. Most larger-scale hotels are branded and connected with a major, well-known chain that accommodates reservations, promotions, and purchasing. At the other end of the scale in size, home rentals and Bed and Breakfast Inns (B&B) have prospered and now compete for longer-term stays. This results from web-based applications that have made it easier to match renters with rooms or homes for rent and manage access, such as VRBO and Airbnb. Aside from these extremes in scale, we also delineate the market by categories such as budget or economy, limited service, hostels, full service, luxury resorts, and conference center hotels. Some hotels also provide excellent work environments and cater to business travelers needing a workstation or desk. For example, CitizenM is a chain of efficient, low-cost, but well-located hotels for work-related travelers.

Demand for lodging has paralleled the increase in travel for both pleasure and work over the last seventy years. The average real price per passenger mile via airlines has gone from \$27.62 US dollars in 1950 to less than 8 cents today. Travel demand can be broken down as domestic or international, for holidays, visits to friends and relatives, or business purposes. The hotel business rebounded rapidly after the COVID-19 pandemic of 2020 through early 2023.

One of the dominant sources of travel industry data is Smith Travel Research (STR), now owned by CoStar. It is not easy to get pure real estate data from sites leased to hotels as the site and hotel are often sold as a package deal. Valuation often includes business value and real estate value. Historically, and noting the possibility of some issue with pure real estate analysis, separate from the business, cap rates for hospitality property have run higher than any other large property type. In fact, hotel cap rates have been running double those observed for multifamily rental properties. This may reflect the risk of short-term leases (one day to a month) within the business model and now the possibility of government shutdowns during pandemics.

Among the most important market metrics are average occupancy levels, average daily room rate or “rack rate,” and average revenue per room per night “RevPar.” Occupancy levels in the hotel industry normally run 60% to 85%, although some supply-constrained markets like Hawaii consistently tend to run in the 90% range. The rack rate and RevPar tend to be fairly correlated or the same for budget no-frills hotels, but the figures for luxury hotels and resorts can be quite different. The RevPar figure includes charges and fees for other services, including dining, services within the hotel, audiovisual, and conference room fees. Hotels, where the rack rate and RevPar are similar, must typically achieve higher occupancy levels in order to break even. A new budget hotel may need 80% or higher occupancy levels in order to be considered financially successful. In comparison, a luxury resort may need 65% to 70% as long as the RevPar total is high enough from restaurants and other sources of income that may derive from both guests and non-guest visitors. Aside from tracking these figures, the industry can be divided into the business traveler, depending more on conferences, the business traveler who must travel as part of their work, and the vacation traveler. Conference bookings and trends can be monitored as these are often known months and years in advance by local tourist boards. Business travel is normally

correlated with the overall economy and GDP, and vacation travel seems related to the trends in the relative costs of travel (gas, train, and air costs).

8A.2 Self-Storage Centers

George Carlin, a famous and cynical comedian, said in 2007, “The whole meaning of life is to find a place to keep your stuff,” and he found it incredible that a whole industry existed as a place to keep your stuff. As of 2023, there were over 1.65 billion square feet of self-storage space (over 50,000 facilities) just in the USA, with about 50 million square feet being added each year. One in three Americans use self-storage space, paying an average of \$135 per month for a 10 by 10-foot space, with huge variations by metro. Self-storage developments once occurred in odd spaces behind other buildings where the parcel was too small or too inaccessible for most other uses. Still, it has developed into a major industry with major REITs engaged in self-storage rental property. Today, some developers focus on retrofitting obsolete big boxes (40,000 square feet or larger buildings with high ceilings) that were once used for Targets, K-Marts, or other retailers, and this has become a major source of new inventory. Because self-storage requires less parking, there are also out lots and adjoining parcels that can be rented or sold off for other development opportunities.

Typical self-storage units today are located in or near urban centers and have humidity controls to keep the air dry, allowing for longer-term storage. Some are air-conditioned, and unit size varies. All modern units have security cameras and monitoring. Most allow remote management, providing access via a phone app and automated rent collection. Aside from rent collection, default on rental contracts results in forgoing the contents of the storage unit, which are typically auctioned off.

Surveys suggest that the biggest reason for needing to rent a self-storage unit is a result of downsizing, followed by moving, not having enough space at home, storing documents or inventories for business, and changes in household size. Demand is mostly a function of the number of households nearby and the population density that makes land expensive. As of 2020, the per capita self-storage space available in the US was 5.9 square feet. According to Storage Café, 75% of the items stored are furniture, clothing, and home appliances. According to CoStar

data as of mid-2023, the average Self-Storage facility sold for an average of just over \$100 per square foot with a cap rate of just over 5% for prime well-located facilities. As of 2023, the US average self-storage space outside one's home or apartment is about 5 square feet per capita. It is unclear how much storage space demand will exist in the future, but to the extent we feel the need to store our stuff, the per capita demand seems to be growing yearly.

8A.3 Biotech or Life Science

Experts from the Grand View Research, Inc. project reported that the biotechnology industry will grow into a \$2.4 trillion market by 2028. Some of the exciting trends in this growing industry are personalized medicine, genome editing, and synthetic biology, in addition to vaccine development and production. According to Grand View Research, the industry's growth rate is one of the fastest in the world, running nearly 14% a year.

Biotech or life science facilities are specialized industrial spaces allowing for testing, research, development, or clean manufacturing. For example, DNA analysis machine production, testing machines, or vaccine production would all be examples of the types of uses of such space. An example of a biotech-type tenant would be Illumina. An example of a vaccine producer would be AstraZeneca, Bristol-Myers Squibb, Abbott Laboratories, Pfizer, Amgen, Merck KGaA, Johnson and Johnson, Novartis, and Lonza, to name a few. The buildings that are well-positioned for biotech tenants will be very specialized. They tend to have high ceilings from 14 to 18 feet, sometimes higher, flexible ceiling structures with power access, fire safety, ultra-clean air filtration systems that change the air several times more rapidly than in a traditional office building, and backup redundant power systems. Contamination protection is part of the essential design of the building system, along with decontamination rooms and changing rooms for workers who wear special protective garments to keep human pollution inside the garment. Humans are among the most polluting organisms in the building, which is why more and more robotics are being used within biotech production facilities. Robots don't sweat, cough, smoke, flake skin cells, or otherwise spoil clean production sites, so they are being used more and more for interior lab research and manufacturing. Interior surfaces of bio-tech buildings must not be porous or absorb any particulates, so finishing materials must be super smooth and cleanable. Temperature, humidity,

and air pressure controls are also critical in some facilities, as precise measurements require consistent temperatures.

Massachusetts, California, North Carolina, Maryland, New York, and New Jersey are the states where most biotech jobs are located, although many other states have significant biotech workers. The catalysts for biotech growth are primarily access to major university research facilities (Harvard and MIT in Massachusetts, for example) that help to spawn new innovative products and processes and provide highly skilled labor for biotech firms. As such, the top-ranked universities for life sciences include some of the following, which correlates with the location of many biotech firms.

Most developers and investors of Life Science buildings specialize in this property type, so relationships with Biotech firms drive most new developments on a build-to-suit basis. There are some exceptions. IQHQ and ARE, for example, develop some speculative Biotech facilities along with some pre-leased portions of new projects.

8.A.4 Data Storage Facilities

Everyone has heard of storing data and files in “the cloud.” That means storing digital information offsite, generally in “servers,” which are computers dedicated to storing and retrieving information. These servers can be in the closet of a home or a business. Still, more often, digital storage space is simply rented out from third parties, eliminating the need to maintain and update such machines continually. The advantage of using third parties is a result of scalability should changing capacity requirements on the fly be needed, and also the benefits of secure buildings with substantial power feed redundancy, air temperature, humidity controls, and, in many cases, cheaper power sources. Servers are very power-hungry machines that utilize substantial electricity while generating significant heat as a by-product. This is why many data storage facilities are often located in the cheapest electricity regions, such as Idaho and Washington State, and it is helpful to be in cooler climates or near cool water used to air condition the facilities. When the speed of response time to the servers and back to the user is critical, i.e., milliseconds, the servers are more likely to be located near the users. These data storage facilities are mostly filled with heat-

producing electric consuming servers on racks. On a cubic foot basis, they are by far the most productive and expensive space to rent among all the various real estate property types.

Cloud-based data storage is now a vital part of the global economy, and it is growing at geometric rates as a result of the propensity to attach every important object, from light bulbs to temperature sensors to all computers to the Internet. We can expect annual growth rates to continue in the double digits for the foreseeable future. The size of the cloud computing market is expected to exceed US\$ 800 billion by 2026. While companies and individuals may contract directly (privately) with firms like Equinix, Digital Realty Trust, NTT, QTS Realty Trust, CyrusOne, Telehouse, and Cyxtera, most users will contract with firms like Amazon, Dell, HP, Google Drive, Dropbox, Microsoft Azure, TeraBox and other large-scale vendors that provide a user interface for storing files. Dropbox is the most utilized cloud storage for individuals, with over 700 million users as of 2020.

The key to successful development, investment, and management in data storage seems to be either developing relationships with large vendors or working with larger firms that want private, secure storage of files, finding good sites with cheap power, and being able to provide secure energy backup so that the system never goes down. The benefits of such development include tenants who need almost no parking and are not fussy about amenities and views.

8A.5 Surface Parking Lots

Office towers, retail and residential buildings, museums, convention centers, and arenas crowd urban areas. But what was there before those buildings? Probably surface parking lots and older obsolete buildings. The humble surface parking lot is often the predecessor to most new structures. Surface parking lots are an excellent way to hold otherwise vacant sites, earn some cash flow from parking, and maintain maximum option value on the site for more productive uses when market conditions warrant new development.

There are only two types of parking structures: surface lots and multiple-layered covered garages. Covered garages are far more expensive to develop and more difficult to convert to new, higher, and better use since the new returns must also compensate for the lost revenues. Here, we focus

on surface parking lots, which can be described as "options that pay dividends." We also note that the location and demand for parking may shift dramatically over the next decade as autonomous cars come to fruition, and at that point, we will need more drop-off lanes next to all buildings, and parking may shift to more fringe locations.

There are three market segments requiring parking for human-driven cars:

1. Workers who want parking frequently. This market segment can be further divided into the professionals who are unwilling to walk more than a few minutes or to go outside and face uncertain weather and the lower income staff who are willing to face uncertain weather and walk a few or several blocks in order to save on parking rates. The first group can be viewed as one with inelastic demand who will pay any price for convenience. The latter group is very price-sensitive and amenable to shuttles and public transportation options should these be efficient alternatives.
2. Visitors who visit urban sites for business meetings, dine out, or shop. These are short-term parkers who may need parking for only a few hours. Given the short-term nature of this parking demand or the fact that bags might need to be carried after shopping, convenience is essential, and the parking must be very close to the desired target location. The price for this type of parking is usually very high per hour but might be subsidized by retailers and restaurants.
3. Entertainment-oriented or business event attendees that require short-term parking for an evening or a few days. Event parkers, where a great concentration of cars are aiming at a specific location, pay for parking according to a time and convenience distributed supply. Lots close to the event tend to be considerably more expensive than those that require a shuttle or a long walk. Prices will vary substantially for such myriad demands.

There are significant economies of scale in the operation of parking lots. Advertising, signage, management, and revenue collection from a myriad of lots and garages all tend to have a scale economy that suggests advantages from centralized ownership or at least management. Thus, the highest bidders for parking lot properties will likely be those already owning and operating other parking lots in the same area. Fragmented operation tends to be extremely inefficient, given the difficulty of securing stable, trained, and reliable lot operators.

Given the high option value of owning surface lots, we see that parking lots tend to sell for cap rates that are among the lowest of all property types. Recall the Gordon Growth model where total yield is approximately equal to the going-in cap rate plus the growth rate of these net revenues. If the expected growth rate of the revenue stream is 6% and the required yield is 10% (unlevered), then the going-in cap rate will be as low as 4%. The going-in cap rate will be even lower if a site has a very high option value in the near term. The point is that the option value is as important as the current yield on sites with near-term potential for development. For sites with no possibility of conversion, the current yield will be closer to the long-term required total yield. Most successful surface parking lot investors will concentrate on sites with high option values.

8A.6 Mixed Use

We should also note that whether we are considering specialized property types or the big four or five, we have entered an era of blurred lines. **Mixed-use property** has been promoted for decades as one way to help minimize transportation costs and pollution with the notion that some people will live and work and shop close by or in the same building complex instead of commuting between geographically distinct zones of homogeneous uses. A natural extension of this trend, with an underlying environmental concern and the impetus of a COVID-based acceleration of working from home, is a blurring of the lines between uses. Today, most residential use units must also function as an office or study, sometimes, if not all the time. Hotels also function as a third place to work, with more work spaces built into the designs in recent years. Within retail centers, we may find offices today and even mini-warehouses that provide last-mile warehousing. The point is that property today is more multi-purpose, flexible, and less distinct than single-purpose spaces.