Chapter 8: Asset Valuation (Real Estate)

At times, real estate may be the largest item of fixed assets on the balance sheet. The two most important items to consider are the market value of the building if it is part of the transaction, or the lease if the building is not part of the transaction.

Introduction

When valuing a business and reviewing the real estate component, you need to look at one of three things, depending upon whether the seller owns the facilities or leases:

(1) The value of the facility (if the seller owns the building/buildings).

(2) The value and duration of the lease (if the seller does not own the building).

(3) Some combination of the two (if the facility will be leased by the seller, the fair rental rate should be determined).

The lease and real estate facilities of a business are the most important items to review before valuing or purchasing a business. It is critical to know how much land there is, how much building space there is, whether the property is owned or leased, and whether it is for a market value or a liquidation value. The building and land characteristics of the property, as well as its market supply and demand should be accurately determined.

Valuing the Real Estate Assets

The best way to understand real estate valuation is through the use of an example.

Valuation Example

Throughout this chapter, we will present a quick valuation of an industrial building. This analysis will assist the reader in understanding how this asset fits into the overall business valuation. Many steps have been skipped, but the issues and analysis will give a buyer/seller or analyst a good "back of the envelope" indication. The most important specifics of this building can be seen in Table 8-1.

Table 8-1: Land/Improvement Statistics of Example

Item	Statistic
Location	123 Dupont Street Ontario, CA
Interest Valued:	Fee simple interest (company owns building and does not lease)
Land Size and Shape:	6.87 acres, 299,257 sq. ft.
Zoning	M1 (manufacturing)
Tax and Assessment Data	1.0091% of assessed value, plus $29,472 in special assessments
Gross Building Area:	85,080 square feet
Year Built	This year
Construction Type:	Good, Class C Construction
Parking	131 spaces
Amenities	Rail Access

Before reviewing the different techniques of valuing a building, it is important to understand the various ownership interests in real estate, as well as the critical and unique building and land statistics.

Ownership Interests

There are four general interests in real estate:

(1) fee simple
(2) leased fee
(3) leasehold
(4) partial interest

Fee simple interests are the most common, meaning that the property is not encumbered by any other interest or lease. This interest is most used when valuing an owner user property where there are no tenants, and the owner (seller) also owns both the land and building.

A leased fee interest means an ownership interest held by a landlord, but leased to others; the rights of the lessor (landlord) or the leased fee owner and leased fee are specified by contract terms contained within the lease. This interest is involved mostly when valuing income producing property with leases such as industrial, office buildings or retail centers.

A leasehold interest is defined as the right to use and occupy real estate for a stated term and under certain conditions, conveyed by a lease. This interest is generally involved when valuing a land lease or the lease of a tenant.

Finally, a fractional interest is an interest in either of the three interests seen above but is less than 100%. An example of this would be a house in which three people have one third interests. Fractional interests are described in Chapter 11.

Table 8-2: Important Land Characteristics

Item	Description/Comments
Location:	Get the address (look at title report/tax bill)
Assessor's Parcel Number:	Needed to establish basic tax identification and other statistics. Generally found on the tax bill.
Size and Shape:	There are 43,560 sq ft in one acre. This is a critical factor since you need to know if there is enough room for expansion, if your parking is less than the overall market, if the turning radius for freight delivery is inadequate, or if there is excess land which is an additional asset for the balance sheet.
Ingress/Egress and Exposure:	If you cannot access the property, or are subject to a short term easement, then the value is much lower.
Adjacent Properties:	Is the property next to a toxic dump or gas station?
Topography:	Are there problems here? A hard rain or earthquake may make a building slide down a hill. Some buildings gradually shift down a slope.
Drainage and Storm Water Control:	Will the building float away? You may need flood insurance.
Hazards:	What was the building previously used for? Is it on top of a fault line (earthquake)? Is it contaminated by toxins (lead, methane)?
Easements, Restrictions, and Encroachments:	Does the title report flag any issues? The seller may not even know about these, such as the right for a neighbor to drive across your property.
Utilities:	Will you have to dig a ditch for sewage, water, or electricity, and pay for two miles of digging and engineering to make the building operational?
Zoning Provisions:	This is a big one. It is absolutely critical to find the existing zoning code. If your building burns down can you re-build the same structure? In most cases you can't. If you currently run a manufacturing business and the zoning has been changed to retail, then this may be a problem. Check to see if you need a conditional use permit (CUP) for your business.
CC&Rs/Private Restrictions, Governing Use:	Nail these down. These usually appear in the title policy and show any restrictions on the use of the property.
Tax and Assessment Data:	Are you being over assessed or under assessed? Also, you want to find out when the next assessment is for the county. Your taxes may double.

Land and Building Analysis

Before valuing anything, one must know the building and land parcel sizes. First, the site improvements need to be reviewed. The general characteristics for a land parcel can be seen in Table 8-2. Critical improvement characteristics are seen in Table 8-3.

Table 8-3: Important Building Characteristics

Item	Comments
Gross Building Area:	Get the correct square footage; a second story or mezzanine is often built by a seller in an industrial building. The commercial real estate market may not give any value to this additional floor or may give only partial value. You do not want to end up paying top dollar for this additional floor.
Exterior:	Concrete, wood?
Foundation:	Is it flat, and can it withstand inventory stacking? If so, how high?
Roof:	Do you need a new one? This can be expensive! How old is it?
Air-conditioning/Heating:	Same as the roof.
Plumbing:	Do you need new plumbing?
Electrical:	Do you need to spend more money to upgrade the system?
Fire System:	This varies based upon the building use. Do you have a sprinkler system or are your employees and store materials going to burn? If not, how is this going to affect your insurance premiums? Will the fire department allow you to operate in the existing facility?
Parking:	Critical! Are there enough spaces for the use of the building (distribution, manufacturing, etc.) This has to comply with zoning, unless grandfathered in.
Loading Doors:	It could make or break an operation.
Ceiling Height (Truss Height):	Is the ceiling high enough for more stacking of inventory? How high will the fire department allow?
Environmental:	Asbestos, etc.? Are you purchasing an off balance sheet liability? Are there clarifiers in the building?
Age:	Is the building about to fall over, or has it been maintained?
Functional Obsolescence:	Are there problems with the building which impact the operation of the business? For example, if you are to lease or buy a building and there is no air conditioning system, then this is a problem. If you are to lease or buy an industrial building and you need 18-20 feet for inventory stacking, and the building only has a stacking height of 15 feet, then you will need to eventually lease more space in order to store inventory. Ask a commercial broker if you are not sure.
Deferred Maintenance:	This is critical. You want to know going into a deal whether you need to pull out your checkbook for a new roof, electrical wiring, earthquake retrofitting, asbestos abatement, plumbing etc. Get a good structural engineer and contractor when in doubt (even when not in doubt).

Market Analysis

The appraiser should then determine the vacancy rates in the area, the amount of space which is being built or planned, and whether vacancy rates and rental rates are decreasing or increasing as a result of supply and demand imbalances. This information may be obtained from real estate brokers or from

appraisers. Also, contact the city planning department for additional information on future development. One should not get into a long term lease, only to learn that better and new space is about to be built, or a competitor is about to locate next to you.

You can get much of this information on-line from three commercial real estate brokerage companies. These companies and their respective web sites can be seen in Table 8-4.

Table 8-4: Market Analysis Sources

Commercial Real Estate Company	Web Site
CB Richard Ellis	http://www.cbrichardellis.com
Cushman & Wakefield	http://www.cushmanwakefield.com
Grubb & Ellis	http://www.grubb-ellis.com

Market Analysis Example

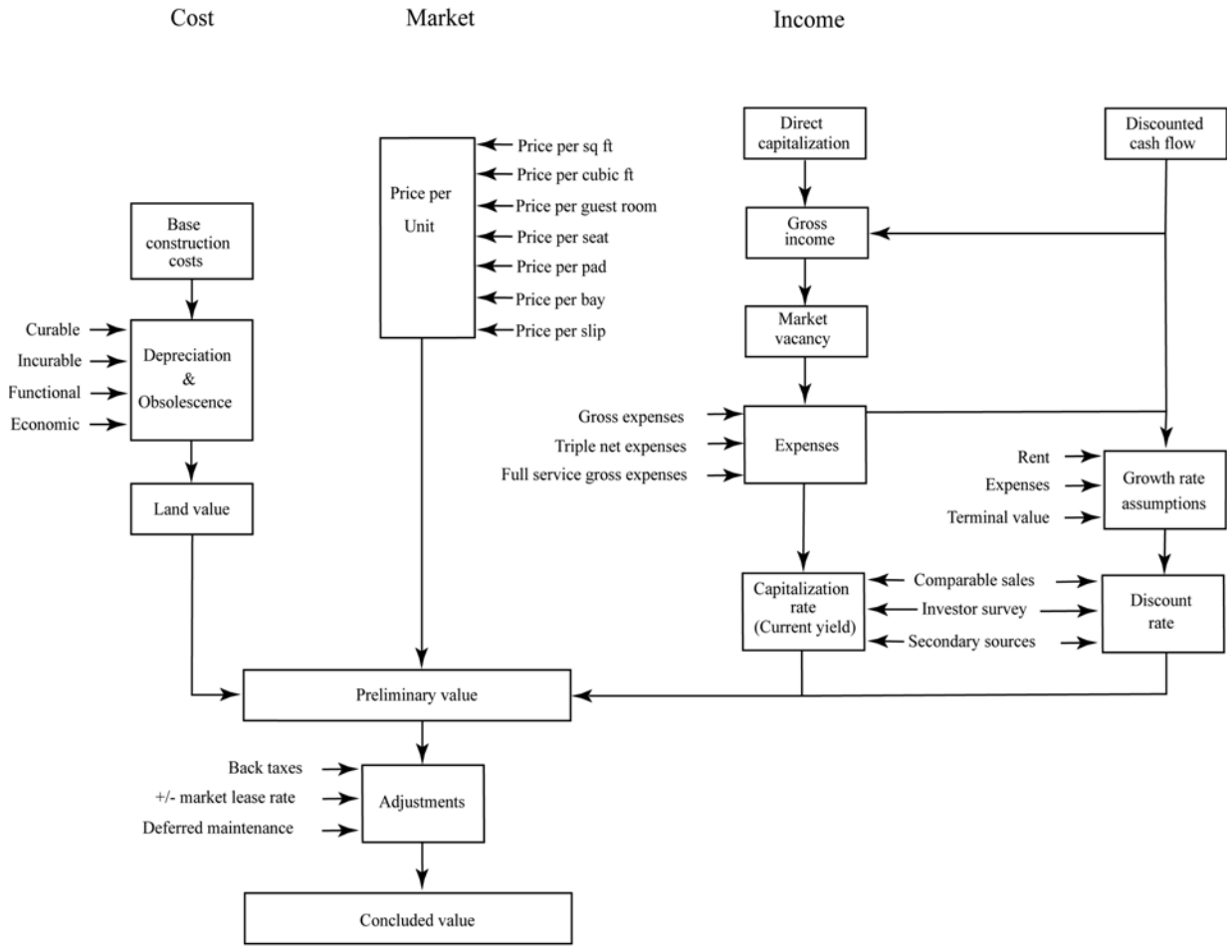
If the total amount of industrial space in a given market is 54,200,000 sq. ft., with the vacant space being 3,252,000 square feet the vacancy rate is 6.0%. It therefore seems like a healthy market and may indicate stable values. On the other hand, the market may have greater demand than supply, indicating that you may be paying top dollar.

Valuation Approaches

After gathering basic statistics on the building and land which you are appraising, the appraiser may then apply different approaches to valuing the property or properties. There are three basic valuation approaches: (1) the Cost Approach; (2) the Direct Comparison Approach; and, (3) the Income Approach. These approaches are more comprehensively described in Figure 8-1 on page 178.

The Cost Approach calculates either the reproduction cost estimate of the subject property improvements (maintaining comparable quality and utility), or the replacement cost. Losses in value are then subtracted from this value. Losses are from depreciation, age, wear and tear, functionally obsolete features, and economic factors affecting the property. The net value (cost less depreciation) is then added to the estimated land value to provide a total value estimate.

Figure 8-1: Valuation Approaches



The Direct Comparison Approach requires a detailed comparison of comparable properties (which have been sold) with the subject property and is based upon a physical unit of comparison, such as price per square foot. A sufficient number of transactions of comparable properties is needed to provide an accurate indicator of value.

The Income Approach is based upon the theory that the value of the property tends to be set by the expected income or cash flow to the owner. It is, in effect, the capitalization of expected future income into a present worth. This approach requires an estimate of net income, an analysis of all expense items, the selection of a capitalization rate, and the processing of the net income stream into a value estimate.

Cost Approach to Value

There are five basic steps to the cost approach procedure:

(1) Estimate land value as if vacant and available for its highest and best use,
(2) Estimate replacement costs of the improvements,
(3) Add an estimate of the entrepreneurial profit,
(4) Deduct estimated accrued depreciation, and
(5) Add land value estimate for total value indication.

Land Value

The key points to understand about land value are:

- Location,
- Physical characteristics of the parcel,
- Legal encumbrances,
- Availability of utilities, and
- Zoning.

Location factors include things such as demand, traffic, exposure, corner, view, surrounding uses, and so on. Physical characteristics include things such as size, functional utility, attractiveness, or amenities. Legal encumbrances include things such as deed restrictions or easements. The availability of utilities takes into consideration the cost of bringing utilities to the site. This is a big factor, especially for industrial uses. Sometimes the cost of bringing utilities to a site is higher than the purchase price for the land parcel.

Zoning is a major issue. Zoning issues include the likelihood/probability of change, and the existing uses allowed for the zoning of the land. Obviously if you lease or purchase a building which is zoned for an industrial use and now it is a retail use, the business may have to move. Such a move may not be problematic for some businesses. However, if the business is location dependent, then it can have a great impact on one's ability to sell the business. Basically, this may yield a lower value for the business.

Most appraisers use sales of similar sized and zoned parcels. This usually provides you a good "ballpark" range of value. Obviously larger parcels will sell for lower price per sq.ft., and smaller parcels will sell for higher $/sq.ft. (economies of scale). One major issue which many fail to consider is what type of business the parcel will be used for. For example, an owner of a parcel may want to sell a parcel to an auto dealer for $10/sq.ft. However, if profit margins for the dealership are only 1.5-3.0%, then the most that they can afford to pay would be perhaps only $2-4/sq.ft., depending upon the sales volume. The appraiser must have a good understanding of the profitability of the business before estimating land parcel values.

Estimate of Improvement Cost

To provide complete building cost estimates, both the direct (hard costs) and the indirect (soft costs), are included. An entrepreneurial profit, sufficient to

induce a developer to undertake the risk associated with the building- project, is also an essential component of costs.

Direct Costs (Hard Costs)

Direct costs can be obtained from any secondary source such as the Marshall & Swift Publication Company, Boeckh Publications, and the F.W. Dodge Corporation, found in most public libraries. These direct cost figures are essential to understanding the cost of constructing a building.

The quality and classification of the building should be examined. The class refers to the type of construction material originally used when the building was constructed, whereas quality refers to the type of construction material used within each class. The different classes are summarized in Table 8-5. Many buildings and structures will be a hybrid of the classes seen in this table.

Table 8-5: Marshall Valuation Service Building Classifications

Class	Frame	Floor	Roof	Walls
A	Structural steel columns and beams, fireproofed with masonry, concrete, plaster, or other noncombustible material.	Concrete or concrete on steel deck, fireproofed.	Formed concrete, precast slabs, concrete or gypsum on steel deck, fireproofed.	Nonbearing curtain walls, masonry, concrete, metal and glass panels, stone, steel studs and masonry, tile or stucco, etc.
B	Reinforced concrete columns and beams. Fire-resistant construction.	Concrete or concrete on steel deck, fireproofed.	Formed concrete, precast slabs, concrete or gypsum on steel deck, fireproofed.	Nonbearing curtain walls, masonry, concrete, metal and glass panels, stone, steel studs and masonry, tile or stucco, etc.
C	Masonry or concrete load-bearing walls with or without pilasters. Masonry, concrete or curtain walls with full or partial open steel, wood, or concrete frame.	Wood or concrete plank on wood or steel floor joists, or concrete slab on grade.	Wood or steel joists with wood or steel deck. Concrete plank.	Brick, concrete block, or tile masonry, tilt-up, formed concrete, nonbearing curtain walls.
D	Wood or steel studs in bearing wall, full or partial open wood or steel frame, primarily combustible construction.	Wood or steel floor joists or concrete slab on grade.	Wood or steel joists with wood or steel deck.	Almost any material except bearing or curtain walls of solid masonry or concrete. Generally combustible construction.
S	Metal bents, columns, girders, purloins and girts without fireproofing, incombustible construction.	Wood or steel deck on steel floor joists, or concrete slab on grade.	Steel or wood deck on steel joists.	Metal skin or sandwich panels. Generally incombustible.

Source: Marshall Valuation Service

In addition, paving and landscaping costs need to be accounted for as well. These costs can also be obtained from the secondary sources described above.

Indirect Costs (Soft Costs)

Certain costs will be incurred that are not included in Marshall & Swift's *Valuation Services*' base cost estimate.

- Leasing Commissions
- Property Taxes
- Legal and Accounting Fees
- Architect's Fees

These costs typically range from 6-12% of base costs, depending upon the location in the country.

Entrepreneurial Profit

Depending upon market practice, entrepreneurial profit may be measured as a percentage of direct costs, a percentage of direct and indirect costs, a percentage of all costs including land, or the value of the completed structure. It typically ranges from 0% to 5% for owner user entrepreneurial profit (e.g. for an industrial property), and 10% to 25% for speculative development.

Accrued Depreciation Estimates

All types of accrued depreciation affecting the subject improvements are considered. Depreciation (for real estate valuation purposes) is defined as:

- In appraising, a loss in property value from any cause.
- In regard to improvements, deterioration and obsolescence.
- In accounting, an allowance against the loss in value of an asset for a defined purpose and computed using a specified method.

Accrued depreciation is divided into four basic categories:

(1) Physical curable deterioration
(2) Physical incurable deterioration
(3) Functional obsolescence
(4) External obsolescence.

Curable physical deterioration refers to the cost to cure short-lived items (e.g., a bad roof, plumbing). *Incurable physical deterioration* involves an estimate of deterioration that is currently not practical or feasible to correct. It pertains to all structural elements that are not listed in the physically curable category. In addition, it applies to the current reproduction or replacement cost of the entire structure less the components treated as curable. *Functional obsolescence* accounts for the adverse effect on value resulting from defects in design (e.g. no truck shipping facility in a distribution plant). Items causing functional obsolescence can be either curable or incurable. It is curable only when it is profitable to cure the item.

External Obsolescence (sometimes called *economic obsolescence*) is due to external influences that cause a loss in value to any property. External obsolescence, which is the result of the diminished utility of a structure due to negative influences from outside the area, is always incurable. Examples can include changes in traffic counts, or a recession in the local economy.

Table 8-6: Summary of Cost Approach to Value

Item					Values
Base Cost/Sq Ft			$19.24/sq.ft.		
Plus: Sprinklers			$1.50/sq.ft.		
Plus: Air Conditioning Adjustment			0		
Subtotal/Sq Ft			$20.74/sq.ft.		
Times: # Stories Adjustment	1.382		$28.66/sq.ft.		
Times: Perimeter Adjustment	0.88		$25.22/sq.ft.		
Subtotal/Sq Ft			$25.22/sq.ft.		
Times: Local Multiplier	1.12		$28.25/sq.ft.		
Times: Current Multiplier (Building)	1.02		$28.81/sq.ft.		
Times: Square Footage (Building)	85,080 sq.ft.	x	$28.81/sq.ft.		$2,451,575
Times: Paving Cost	104,000 sq.ft.	x	$2.00/sq.ft.	$208,000	
Times: Landscaping Cost	47,000 sq.ft.	x	$1.00/sq.ft.	$47,000	
Subtotal of offsite costs				$255,000	
Times: Local Multiplier	1.12		$285,600		
Times: Current Multiplier (site)	1.00		$285,600		$285,600
Subtotal					$2,737,175
Plus: Additional Indirect Costs			$191,787	$2,928,962	
Times: Entrepreneurial Profit @ 3%			$87,869	$3,016,831	
Total Cost New, Excluding Land					$3,016,831
Less: Accumulated Depreciation					
Physical Curable Depreciation				$(50,000)	
Physical Incurable @ 11%				$(331,851)	
Functional				0	
Total Accrued Physical and Functional Depreciation				$(381,851)	$(381,851)
Subtotal Depreciated Value of Improvements					$2,634,979
Plus: Land Value					$933,682
Cost Approach Value Prior to Economic Obsolescence					$3,568,661
Less: External Depreciation					$(329,798)
Depreciated Value					$3,238,863

Depreciated Value of the Subject

The depreciated value of a building is calculated by subtracting the accumulated depreciation from the total cost and adding to it the estimated land value. The local and current multipliers were obtained from the *Marshall Valu-*

ation Service's cost manual, section 99, pages 3 and 6. Table 8-6 summarizes the resulting depreciated value of the building statistics described in Table 8-1.

The concluded value of the subject, based upon the cost approach, is $3,238,863, or $3,240,000 (rounded).

Direct Comparison Approach (Market Approach)

The Direct Comparison Approach is based upon the assumption that, when a property is replaceable in the market by another similar property, its value tends to be set by the purchase price necessary to acquire that substitute property, assuming no costly delay is encountered in making the decision and the market is reasonably informed.

Table 8-7 shows five sales that were chosen because they were most comparable to the subject building originally shown and described in Table 8-1.

Table 8-7: Summary of Comparable Building Sales

Sale #	Location	Sale Date	Sale Price	Sq Ft Age	$/Sq Ft	Imputed Capitalization Rate
1	727 Wanamaker Ave. Ontario, CA	Apr 02	$2,500,000	74,232 6 years	$33.68	7.84%
2	4450 Lowell St. Ontario, CA	Mar 02	$10,812,087	317,070 1 year	$34.10	8.84%
3	1251 Rockefeller Ave. Ontario, CA	Feb 02	$9,000,000	260,764 just built	$34.51	N/A
4	810 Wanamaker Ave. Ontario, CA	Nov 01	$4,500,000	136,249 5 years	$33.03	8.79%
5	1051 Rockefeller Ave. Ontario, CA	Apr 01	$4,147,273	133,725 9 years	$31.01	N/A

Theoretical net income divided by sales price

Usually sales are compared on the basis of price per rentable square foot and are adjusted for items such as:

- *Real Property Rights Conveyed*:
  leased fee, fee simple, partial interests, etc.
- *Financing Terms*:
  seller financing, or assumption of existing below market financing, installment sale contract, etc.
- *Conditions of Sale*:
  motivation of buyer and seller, assemblage, forced sale, bank foreclosed transaction, related parties transaction.

- *Market Condition at the Time of' Sale*:
  appreciation, depreciation, changes in supply and demand, etc.
- *Location*:
  demand/traffic, exposure, corner, view, surrounding uses
- *Physical Characteristics*:
  building size, quality of construction, architectural style, building materials, condition, functional utility, site size, attractiveness, amenities, inclusion of non-office elements such as retail, parking, etc.

Sales Comparison Approach Analysis

The above adjustments were applied in Table 8-8.

Table 8-8: Improved Sales Analysis Adjustments

Sale/Adjustment Item	Sale 1	Sale 2	Sale 3	Sale 4	Sale 5
Unadjusted price/sq ft	$33.68	$34.10	$34.51	$33.03	$31.01
Location	-	-	-	-	-
Physical adjustments					
Building size	-	10%	10%	5%	5%
Quality of construction	-	-	-	-	-
Architectural style	-	-	-	-	-
Condition	14%	2%	0%	11%	20%
Functional utility	-	-	-	-	-
Site size (floor to area ratio)	-	-	-	-	-
Attractiveness	-	-	-	-	-
Amenities	-	-	-	-	-
Total other adjustments	14%	12%	10%	16%	25%
Adjusted indication of value	$38.40	$38.19	$37.96	$38.31	$38.76

*Location Adjustments***:** Since all buildings are in a similar location, no adjustments needed to be made.

*Physical Characteristics Adjustments***:** These adjustments are generally made by comparing the square footage of the chosen sales comparables to the square footage of the subject property. Larger sized sales, relative to the subject, will have upward adjustments made, while smaller sized sales will have a downward adjustment made to the sale. In Table 8-8 sale comparable Two through Five had larger sizes, as compared to the subject property. Therefore upward adjustments were made to varying degrees. The buildings were all adjusted for differences in age, relative to the building described in Table 8-1 on page 174. The adjustments were based upon a straight line depreciation based upon 45 years.

Summary of Adjustments

If the adjustments are made correctly, then the sale prices should be closer in range. If not, then an error was made. Sometimes there is one sale which stands out among others, but usually there is no leading indication and a central point (average or median) must be estimated. A concluded value based upon a sale comparison is shown in Table 8-9.

Table 8-9: Summary of Concluded Market Value

Concluded Improved Value		Total Sq.Ft.		Indicated Value
$38.50	x	85,080	=	$3,275,580

Income Approach

Most businesses which own their buildings are typically interested in a cost or market value. The income approach is based primarily on the investment criteria of an investor, and the value is derived through either a direct capitalization or a discounted cash flow.

Direct capitalization is the method utilized to convert a single year's estimate of income into a value indication. Direct capitalization is most appropriate when analyzing a stable income stream and assuming a reversion (sale price) at the end of a holding period. In a direct capitalization analysis, the value is estimated by the direct capitalization of expected net annual income after an allowance for vacancy and operating expenses is made. The capitalization is performed by use of an overall rate, or capitalization rate (R_o).

$$R_0 = \frac{\text{Net Operating Income}}{\text{Sales Price}} \qquad \textbf{(EQ 8-1)}$$

where R_0 = capitalization rate

An R_o is selected from comparable sales in the market place.

When applying an income approach for a property, the analyses of gross revenue, market vacancy and expenses are the most critical items. If these items are not calculated correctly, then the net income will not be capitalized properly. On the other hand, the capitalization rate is relatively easy to obtain, as compared to a business valuation in the sense that there is a much tighter range in capitalization rates for real estate than for business valuations.

Comparable Leases

A summary of comparable leases found in the marketplace can be seen in Table 8-10, as they apply to the building described in Table 8-1 on page 174.

Table 8-10: Summary of Market Leases

#	Location	Date/ Term	Sq.Ft.	Base Rent/ Sq.Ft.	Free Rent/ Increases	Effective Rent Per Sq.Ft.
1	1060 Wineville Ontario, CA	June 02 5 yrs	96,570	$0.31	2 months Annual CPI	$0.30
2	727 Wanamaker Ontario, CA	April 02 5 yrs	74,232	$0.32	2 months Annual CPI	$0.31
3	2060 Wineville Ontario, CA	Jan 02 3 yrs	147,319	$0.31	2 months Annual CPI	$0.29
4	1040 Vintage Ontario, CA	Asking 3-5 yrs	58,513	$0.31	2 months Annual CPI	$0.30
5	1260 Vintage Ontario, CA	Asking 4 yrs	92,885	$0.32	4 months Annual CPI	$0.29

[a] Effective rent means how much the landlord is pocketing. The effective calculation for lease comparable One is $0.30/sq.ft. [$0.31/sq ft x (60 months - 2 months free rent)]/60 months; CPI means consumer price index.

Most leases are analyzed on the basis of income per rentable square foot per month or year. The leases have been considered in comparison to the subject for the characteristics shown in Table 8-11.

Table 8-11: Typical Lease Term Adjustments

Adjustment Item	Characteristics
Legal Rights:	length of term, options, first rights of refusal.
Conditions of Rent:	arms' length, etc.
Market Conditions at the Time of Lease:	inflation, deflation, etc.
Location:	(e.g., within building, industrial park, etc.)
Physical Characteristics:	size, construction, quality, etc.
Income Characteristics:	free rent, escalations, etc.

Market Rent Conclusions:

The concluded effective rent and other market lease terms for the subject building are presented in Table 8-12.

Table 8-12: Summary of Concluded Rental Terms

Category	Amount
Base Rent/Sq Ft/Mo	$0.31
Effective Rent/Sq Ft/Mo*	$0.30
Annual Escalation	Annual CPI
Tenant Improvements	Negotiable
Average Lease Term	4-5 yrs

**It must be noted that it is the effective rent which is utilized in a direct capitalization and not the base rent.*

Potential Gross Income:

The concluded potential gross income is the annual effective market rent for the subject property. This income for the subject is summarized as:

$$85{,}080 \text{ sq ft} \times \$0.30 \times 12 \text{ months} = \$306{,}288$$

Vacancy and Collection Loss

Vacancy loss becomes a function of the interrelationship between absorption, lease expiration, renewal probability and estimated time between leases. This interrelationship can be seen in the formula below:

$$V = \frac{[(1-P) \times A]}{T} \quad \textbf{(EQ 8-2)}$$

where:

V = vacancy rate in the market

P = probability of renewal

A = absorption time between the end of an old lease and the beginning of the lease for a new tenant

T = typical lease term in the market

Vacancy will fluctuate from year to year. The average stabilized vacancy can be approximated by dividing the average number of months of vacancy between leases by the average lease term. In the case of the subject, we have altered the different variables to obtain a vacancy rate matrix.

Table 8-13: Market Vacancy Rate Calculation

Variables	Assumptions
Probability of renewal (P)	50 to 60%
# Months absorption (A)	6 to 9 months
Typical lease term (months) (T)	48 to 60 months

Renewal (P)	Absorption Time (months) (A)	Term (months) (T)	Vacancy $\frac{[(1-P)\times A]}{T}$
50%	6	48	6.3%
50%	9	48	9.4%
50%	6	60	5.0%
50%	9	60	7.5%
60%	6	48	5.0%
60%	9	48	7.5%
60%	6	60	4.0%
60%	9	60	6.0%

Maximum Vacancy	9.4%
Minimum Vacancy	4.0%
Average	6.3%

As can be seen above, based upon different variables, the average vacancy rate calculated is in line with that of the overall market of 6%. The credit risk is estimated to be 1-2% and is a subjective estimate. Therefore, the vacancy and collection loss is estimated to be 7% (1% + 6%).

Explanation of Operating Expenses

When analyzing a building's historical expenses, it is sometimes useful to compare them to secondary sources, or when this is not possible, rely upon information from real estate brokers. In our case we have simply contacted brokers.

The typical lease in the subject market provides for the tenant to pay for a triple net expense lease. In this case, net means that the tenant pays for (1) taxes, (2) insurance and (3) common area expenses (roads and grounds), thereby making up the word triple net.

Selection of Capitalization Rate

The quickest way of finding a capitalization rate is through either a look at comparable sales, or a broker/investor survey.

Comparable Sales

The capitalization rate information taken from Table 8-7, "Summary of Comparable Building Sales," on page 183 can be used as a basis for analysis. These sales show a range of 7.84% to 8.84%. It must be noted that when a typical owner user market is encountered, the capitalization rates are usually lower than for investors. Owner users are not as motived for a higher return on investment as are investors, and there is less risk of leasing up the building.

Interview of Investors

One can interview real estate brokers and various participants in the market area, which would indicate the results seen in Table 8-14.

Table 8-14: Survey of Investors

Type of Investor	R_0
Regional Commercial Broker	8.5-10.0%
National Commercial Broker	9.0%
Owner	11%
Insurance Company	8.5-9.5%
Investment Banker	9.0-10.0%

Remember that capitalization rates typically range from 8-11%. Most people use 10% for the average property.

Direct Capitalization Summary

A summary of the direct capitalization of the subject at stabilized occupancy is illustrated in Table 8-15. Therefore, the concluded value via the capitalization of net income is $3,122,987, or $3,125,000 (rounded).

Summary (Concluded Value)

A summary of the different values can be seen in Table 8-16. The Cost Approach is given secondary weight since most buyers do not purchase a building based upon cost. The Direct Comparison Approach is a strong indicator of the market value. The least emphasis was placed upon the Income Approach. Owner user properties, such as the subject building, are not purchased by owner users on the basis of an analysis of the probable net income to be derived from the property. The income approach does not simulate the analysis that an owner user (non investor) would undertake for such a property. This approach least accurately indicates owner user motivations for purchasing properties such as the subject. However, some buyers may use an income analysis.

Table 8-15: Summary of Capitalized Value

Item					Totals
Revenue					
Potential gross annual income	$0.30/sq ft/mo	x	85,080 sq ft	$306,288	
Other income				0	
Annual potential gross income					$306,288
Less: vacancy loss @	6% of income			(18,377)	
Less: collection loss @	1% of income			(3,063)	(21,440)
Effective gross income					284,848
Plus: recovered expenses*					76,301
Total effective gross income					361,149
Expenses					
Less: roads/grounds				(3,000)	
Less: administrative expenses				(5,000)	
Less: management costs @	3% of effective income			(8,545)	
Less: taxes					
Direct tax @	1.00910% of concluded value			(31,514)	
Special assessments (from tax bill)				(29,473)	
Less: insurance @	$0.015/sq.ft. per month			(15,314)	
Less: reserves @	1% of effective income			(2,848)	(95,695)
Net operating income					265,454
Divided by: capitalization rate					8.5%
Indicated value					***$3,122,987***

*Recoveries are a sum of taxes and insurance; roads/grounds. Reserves and management are a percentage of effective gross income, net of recoveries. Taxes are a function of the concluded value plus special assessments.

It is our opinion that the value conclusion derived by the Cost and Sale Comparison Approach is the most valid. We have concluded on a market value of $3,225,000.

Table 8-16: Summary of Value Calculations

Item	Cost	Market	Income
Base Stabilized Value	$3,238,863	$3,275,580	$3,122,987
(Rounded)	$3,240,000	$3,275,000	$3,125,000
Less: deferred maintenance*		(50,000)	(50,000)
Less: delinquent taxes, below market rents, absorption costs	-	-	-
As Is market value	$3,240,000	$3,225,000	$3,075,000

**Deferred maintenance was already subtracted in cost approach for curable depreciation.*

Leases & Lease Statistics

There is one point to be repeated in this section - *ALWAYS CHECK THE LEASE*. Table 8-17 provides a checklist.

Table 8-17: Business Lease Checklist

Are there options to extend, expand, and/or purchase the building?
Does the city allow the existing signage, or is the sign an illegal use? Sometimes businesses will put signs outside their business without the approval of the city.
Is there enough electricity and outlets for the use intended?
What are the expenses which you are responsible for (taxes, insurance, utilities, common area)?
Is there enough parking for both your employees and your customers?
Will you be providing the signage or will the landlord have an inflated cost for the signage?
What are the tenant improvements provided by the landlord?
Do you get any free rent?
Have you had an attorney review the lease?
Is there any security?
Will the fire department allow the business use of the building, and what is the maximum height which they will allow for stacking of inventory?
Does the city or county allow the existing business use or does it comply with zoning?
What is the long term general plan for the zoning of the area, and how does this affect the business?
Will the health department allow the business?
Is there sufficient air conditioning, heating and lighting?
What is the maximum allowable size for a sign, as allowed by the city or county?
Who pays for the maintenance of the building, you or the landlord?
How is the roof?
Are you responsible for higher taxes if the building which you occupy is sold?
Do you have to return the leased space in a certain condition if you leave?
Is there an exit clause for leaving, such as zoning issues, a retail center falling below a certain percentage of occupancy, your death, etc.?

Most leases can generally be broken down into a number of important statistics which can be summarized in Table 8-18.

Other pertinent real estate lease issues to look at when purchasing a business is summarized in Table 8-17.

When valuing or purchasing a business it is critical to read the lease and understand what is being paid for. There are often surprises which come as a result of the landlord passing through expenses to the tenant.

Table 8-18: Critical Lease Statistics

Statistic	Comments	Example
Address	Place of business	123 Main Street Newport Beach, CA
Square footage	Gives working area	10,255 sq ft
Term	Usually given in number of months	60 months
Options	The ability to renew at either a pre-determined rate, or based upon a market rate at the time of renewal.	3 options x 36 months at market rent
Base rent	Rent to be paid, not including expenses to pass through to the tenant.	Base rent is $0.45/sq ft/month.
Escalations	Either flat for the entire term, annual increases of CPI (consumer price index), or with ceilings and floors, or some combination.	Annual CPI escalations based upon local cost of living index, with a floor of 2%, and a ceiling of 6%.
Percentage rent	Usually as added rent to be paid to landlord for gross sales made, or in lieu of a base rate; sometimes used for retail; rates usually range from 1-12% depending upon location, type of business, and rental structure.	
Time of operation	Sometimes will restrict time of operation.	Only operate between Monday-Sunday, 8:00 am – 7:00 pm
Responsibility of expenses		
Triple net	Landlord passes through expenses to tenant; expenses are usually: taxes on the property, insurance, and common area maintenance. For retail space, expenses usually range from $0.25-0.50/sq ft per month in addition to base rent; for industrial space, it is usually $0.04-0.09/sq ft/month; tenant almost always pays for utilities, except in full service expense lease for office space.	
Gross lease	Landlord usually pays for taxes and insurance, while tenant pays for utilities and janitorial expenses; usually for industrial leases.	
Full service gross	Landlord picks up all expenses. Future increases in operating the building are most often passed through to the tenant on a pro rata percentage of space occupied.	Base expenses for 2000 are $1,900,000 and tenant's base year is 2000, and tenant occupies 10% of the building. Base expenses for 2001 are $1,982,000, so tenant picks up 10% of the increase, or $8,200.
Other	Sometimes there are modifications to the three typical scenarios seen above.	A lease only calls for a net expense whereby the tenant only pays for the real estate taxes.

Often times, even the business owners do not know what their lease terms are, have misunderstood them, or are unsure as to whether options are in the lease. In numerous occasions the terms were not as favorable as believed by the owner. Recently a large local retail operation was currently paying $1.25/sq ft/month, triple net, and the owner thought that this rate was flat for over ten years.

It turned out that the lease was good for only another year and a half, and the two ten year options were to be set at a market rate, which was currently $3.25/ sq ft/month. The owner was obviously upset, so check the lease.

Obviously the buyer needs to find out whether she is getting a good, fair or bad deal. If you are to pay a flat rate, but the market has consumer price increases (CPI) built in, then you probably have a good deal, all things being equal. However, it is important to understand the differences between what the market is asking and what you are paying. An example of a couple of scenarios can be seen in Table 8-19.

Table 8-19: How Lease Rates Can Vary Relative to Market Rates

Variable	Market Rent	Lease #1	Lease #2	Lease #3	Lease #4	Lease #5
Sq Ft	50,000	50,000	55,000	47,000	48,000	52,000
Base Rent	0.55 Gross	0.55 NNN*	0.65 Gross***	0.45 Gross	0.35 NNN	0.52 NNN
Expense Reimbursement	-	0.05 CAM**	-	-	0.05 CAM	0.05 CAM
Term	5 years	5 years	5 years	5 years	5 years	5 years
Escalations	Annual CPI	Flat	Annual CPI	4% compounded every 24 months	6% every year	5% in 3 years
Year 1	$0.550	$0.60	$0.650	$0.450	$0.400	$0.57
Year 2	0.572	0.60	0.676	0.450	0.424	0.57
Year 3	0.595	0.60	0.703	0.487	0.450	0.57
Year 4	0.619	0.60	0.731	0.487	0.476	0.64
Year 5	0.643	0.60	0.760	0.526	0.505	0.64
Average	0.596	0.60	0.704	0.48	0.4510	0.598
Monthly Rental Advantage (Loss)****		$(0.004)	$(0.108)	$0.116	$0.145	$(0.002)
Total Advantage (Loss) Over 5 Years*****		$(12,000)	$(324,000)	$348,000	$435,000	$(6,000)

*Triple net means that the tenant pays for taxes, insurance and CAM expenses. **CAM means common area maintenance expense, which is in addition to the base rent. ***Gross expense is where the landlord pays for insurance, taxes and CAM. ****Rental advantage (loss) is calculated as the average market rental rate of $0.596/sq ft/month over 5 years less the average lease rate over 5 years. *****Total advantage (loss) is calculated as the average monthly advantage (loss) over 60 months or 5 years.

In Table 8-19 it was assumed that the CPI increase was 4%, and that the triple net expense rent plus base rent equated to a gross expense lease. The rental advantage is calculated by multiplying the monthly rental advantage by 50,000 square feet. The lessee needs to see what the market rate is and determine if there are any options to the subject company's lease. As a tenant, there is a rental advantage for leases #3 and #4, but a disadvantage for leases #1, #2 and #5. A buyer should not pay for a business with a bad lease.

Why Location is Important

Location is a critical factor in most businesses' success. It is imperative for retail, important for service businesses, and somewhat important for industrial and distribution uses. Visibility is always desirable, and an industrial business can obtain significant sales if it has freeway visibility.

To decide whether you are obtaining a "hot" area or location, you generally want to get your hands on some census information provided by the Federal Government. In addition, data should be obtained on the Standard Metropolitan Statistical Area (SMSA) in which the business is located. These two sources alone provide a valuable overview of variables such as the population and economic base, the diversity of the economy, and the saturation of similar businesses in the area.

Obviously each business has its own needs with respect to location. These differences are discussed in Table 8-22 on page 195 and in Table 8-23 on page 196. However, for retail businesses, location is the most important.

Retail

The dominant form of retail space in the United States is the suburban shopping center. There are five general categories of shopping centers, which are shown in Table 8-20.

Table 8-20: General Categories of Shopping Centers

Type	Gross leasable area (sq ft)	Anchor tenants	Ancillary tenants
Super Regional	1,000,000 +	Three or more full-line department stores	Men's and women's apparel, shoes (including athletic footwear), electronic equipment, toy stores
Regional	400,000 - 1,000,000	One or more full-line department stores	Men's and women's apparel, health food stores, optical shops, electronic equipment, jewelry, banks
Community	150,000 - 400,000	Junior department store; hardware; supermarket	Men's and women's apparel, family shoe stores, banks, medical and dental offices
Neighborhood	50,000 - 150,000	Supermarket or drug store or a combination of the two	Dry cleaners, beauty shops, donut shops, liquor stores, video tape rentals, travel agents, cards and gifts
Specialty	< 350,000	Anchorless or off-price or discount store	Gifts and novelties, gourmet food stores and food services
Convenience	< 50,000	Small grocer; service station	Barber shops, self service laundries, dry cleaners, liquor stores

Source: Leasing Retail Space, Institute of Real Estate Management (IREM), Chicago, 1990, pp.28-33.

When analyzing a retail use or business, a supply and demand analysis is important. The supply analysis is simply a summation of the competitive centers in the area as well as those planned to be built (check with the planning departments of cities for an update on potential new supply of retail space or competition). A demand analysis will generally be broken down into a primary,

secondary, and tertiary zone. A summary of these zones and pertinent information can be seen in Table 8-21.

Table 8-21: Trade Zone Definitions

Zone	Customer Draw	Radius (miles)	Driving time (minutes)
Primary	60-75%	Less than 3	0-10
Secondary	10-20%	3-7	15-20
Tertiary	5-15%	15 +	25-30

Source: Leasing Retail Space

The primary area is generally an area which a retailer can dominate, and represents the highest level of market penetration. Secondary trade is less defensible from competition. The tertiary trade area is the most difficult to pinpoint and people can drive as far as 50 miles in less densely populated areas. The area may be saturated with similar businesses. Therefore, competitors within the primary zone should be identified.

Table 8-22: Checklist of Important Retail Considerations

Use	Consideration
Retail	Visibility, traffic volume, corner sites, sites on a homeward bound side of the street, sites on a major street carrying people to a stadium, major employer, or other facilities that generate a large volume of traffic; site access and parking; traffic flow; proximity to homes; size of the center; the type of center; ambiance; anchor tenants; variety of specialty stores; whether the center is enclosed; availability of restaurants, theaters, arcades, and bowling; parking; maintenance; prices; quality of the area around the center.

Important Considerations for Office and Industrial Uses

For industrial uses, the rental rate may be favorable, but say UPS or Federal Express may take longer to get to you or send freight out. This would pose a major problem. Office uses are also important to consider. For example, in Los Angeles most businesses are located in a metropolitan downtown area, but most workers live on the west side of Los Angeles and would prefer to work in either Century City or Beverly Hills. Clearly there is a locational problem. Some final things to consider before buying a business are summarized in Table 8-23 on page 196.

Table 8-23: Checklist of Important Office and Industrial Considerations

Use	Consideration
Industrial	Access to markets, material inputs, and residence of labor; transportation facilities for inputs/outputs, airports, harbor, rail sidings, and rail terminals; public transit lines within walking distance; public utility availability; state and local taxes, development controls, and the political climate; project amenities; development alternatives (land sale, build-to-suit, lease); price/rent for each alternative; natural views, topography, and so on.
Office or Professional	Image; square footage; vacancy rate; anchor tenant; parking space and cost; building age; lobby area; proximity to information sources/clients; access to cultural, academic, and recreational activities; access to bus lines, highways, and airports; access to homes of employees.