



Self-storage is an increasingly complex asset class. Investment by Wall Street institutional investors as well as Main Street bankers has increased the importance of self-storage economics and appraisal. Self-storage economics requires a quantified forecast of demand, compared to existing supply, as the basis of the conclusion of market conditions in the local trade area: over-supplied, under-supplied, or equilibrium. The conclusion of market conditions is the foundation of an objective, impartial, and unbiased opinion of value.

Simply stated, appraisal is the process of formulating an opinion of value of real estate as of a given date. The appraisal is an economic model that analyzes all factors that bear upon the value or worth of real estate. The problem is defined, the property described, and the data involved are acquired, classified, analyzed, and interpreted into an opinion of value. All property is analyzed according to the highest and best use of the property as though vacant and as improved. Three primary valuation approaches have evolved in the appraisal process, summarized as follows:

1. The cost approach—considers the value of the land as vacant, plus the cost of the improvements including profit, less accrued depreciation from physical, functional, and external causes.
2. The sales comparison approach—considers the recent selling price of similar properties compared to the subject, broken down into common units of comparison, with adjustments being made for differences.

3. The income approach—considers the economic or contract rent (earning capacity) of the land and improvements, less vacancy and landlord expenses, with the resulting net income stream being capitalized by an investment yield or capitalization rate that would be reasonable to a prudent investor.

Each approach is used by the professional appraiser whenever it is applicable to the valuation problem. The use of each approach depends upon the type of property, the availability and suitability of the market data upon which the approach is predicated, and other judgment factors. The use of two or three approaches will generally result in a range of values for the subject property, which are correlated to a final value conclusion.

The highest and best use analysis is key to the appraisal process and is the basis of the subject value estimate. It is defined in *The Appraisal of Real Estate* (Twelfth Edition, page 305) as follows:

"The reasonably probable and legal use of vacant land or an improved property that is physically possible, appropriately supported, and financially feasible and that results in the highest value."

Highest and best use is analyzed in two parts: 1) as though the site is vacant, and 2) as improved. There are essentially four stages of analysis:

- 1) Physically Possible—consider size, shape, area, and terrain of the parcel.
- 2) Legally Permissible—consider zoning and deed restrictions on the parcel.
- 3) Financially Feasible—possible and permissible uses expected to produce a positive return.
- 4) Maximally Productive—among feasible uses, the use that provides the highest

rate of return or value in terms of the highest present land worth.

The most important concept of highest and best use is market-based demand. This involves a detailed analysis of self-storage market trends with specific analyses of supply, demand and a conclusion of market equilibrium, over-supply, or under-supply.

Trends In Self-Storage

Capital flow, both equity and debt (both private and public), has increased to real estate for a few years due to comparatively high returns. Moreover, the appeal of self-storage compared with other real estate investment is that costs tend to be lower and operating results demand a lower yield. For example, the break-even occupancy rate for a self-storage facility is approximately 40 percent to 45 percent, compared to 60 percent or more for apartments. Consequently, self-storage facilities tend to hold value better and recover faster than other assets when real estate markets sour. Beginning in 1995, these characteristics were recognized by Wall Street REITs and began a 12-year trend of increasing investment in self-storage. In the year 2000, REITs became eligible for Standard & Poor's indexes increasing investors' exposure and lending credibility to the industry. Seeking relatively safe returns with high dividends, self-storage REIT prices have increased over the past four years. These trends demonstrate that institutional investors are seeking self-storage property as a viable alternative investment vehicle.

Markets Sour

Financial turmoil is expected to continue as we delve deeper into 2009. The credit

crunch that began to unfold in the U.S. last year has evolved into a global financial crisis. Many market observers equate this crisis as the greatest challenge facing the world's economic health since the Great Depression. Its effects have already radically reshaped the financial sector, with the potential for more to come.

Turmoil in the housing and financial markets, and the resulting economic uncertainty, continue to impact the commercial real estate market. In response to losses suffered and general uncertainty about the overall economy, and commercial real estate in particular, lenders are tightening credit standards. This conservative tack adopted by financial institutions, combined with the virtual elimination of Wall Street money, is resulting in a pronounced liquidity contraction.

As market observers who simulate behavior rather than affect it, we await market evidence as to the long-term impact of the credit crisis. Risk is considered in the context of our anticipation of rental growth and most vividly in our cap and discount rate selections. Current investor behavior reflects a higher cost of capital, concern about the economy, a reduced pool of investors, and more conservative rent growth and cash flow modeling assumptions. We recognize also that the new market purchasers will have a greater equity interest and lenders will be working with more conventional lending margins, debt, and equity coverage ratios.

Nationally, the impact of continued difficulties of the for-sale housing market is unclear for self-storage. Some argue that reduced household income (the negative "wealth effect" of diminishing home equity)

may cause demand to decrease. Others argue that downsizing in housing will increase demand for self-storage. Over the long run, self-storage occupancies on a national basis have remained relatively stable (vacancy of less than 20 percent) in both bull and bear markets.

In an analysis by the Self Storage Industry Group of Cushman & Wakefield of nationwide sales trends, the average overall capitalization rate increased 18 basis points (year end 2007 compared to mid-year 2008). However, the Investor Survey (Summer 2008) indicated a 36 basis point increase in the overall capitalization rate.

Sales brokers have reported that investors continue to seek self-storage property, although demand for development sites appears to be declining. A disconnect between buyers sellers' expectations and buyers' motivation has led to a decline in transaction volume of at least negative 20 percent. Industry consolidation is a growing trend now. Transactions are now involving portfolios over single

assets, reflecting continued investment interest in the asset class.

These dynamic changes in the financial market impacts macro market conditions for self-storage, particularly in valuation. However, self-storage is unique to most real estate because demand is generally local and less impacted by exogenous factors. For example, most customers come from a three-mile trade area. Market conditions, measured by over-supply, under-supply, or market equilibrium in the Self Storage Market Analysis section of this appraisal, are key to valuation parameters. Both macro and micro conditions are inherently considered in the conclusions of the appraisal of the subject property.

Although stock prices are not directly comparable to individual assets, it underscores the importance of market dynamics for both equity and real estate because the value of these companies is in the real estate. These public investment parameters are generally positive for the asset class in comparison to other real estate.



SELF-STORAGE REIT STATISTICS AND PERFORMANCE												
TABLE 12.1	Stock	Ticker	3Q 2007		4Q 2006		4Q 2005		4Q 2004		4Q 2003	
			Price	Dividend	Price	Dividend	Price	Dividend	Price	Dividend	Price	Dividend
	PS Business Parks, Inc.	PSB	\$56.50	3.12%	\$70.20	1.65%	\$53.10	2.19%	\$45.00	2.58%	\$42.79	2.71%
	Public Storage, Inc.	PSA	\$75.78	2.64%	\$94.45	2.13%	\$70.29	2.85%	\$56.57	3.18%	\$46.45	3.88%
	Sovran Self Storage	SSS	\$45.11	5.50%	\$55.22	4.47%	\$47.68	5.16%	\$42.48	5.70%	\$36.89	6.53%
	U-StoreIt Trust	YSI	\$13.50	8.55%	\$19.97	5.82%	\$20.50	5.66%	\$17.00	4.73%	-	-
	Extra Space Storage, Inc.	EXR	\$15.37	5.92%	\$18.82	4.87%	\$14.80	6.15%	\$13.55	6.72%	-	-
	Averages		\$41.25	5.15%	\$51.73	3.79%	\$41.27	4.40%	\$34.92	4.58%	\$42.04	4.37%



For example, as of November 30, 2008, self-storage REITs' total return was a loss of 9.19 percent, the lowest of any REIT. This demonstrates that despite negative market sentiment, self-storage remained the winner of the "losers." The reason is that self-storage is a cash flow business with strong fundamentals. The performance of key self-storage REITs are summarized in Table 12.1.

The Self Storage Industry Group of Cushman & Wakefield utilizes survey research to track investment criteria for self-storage property (Self-Storage Investor Survey – Summer 2008). Respondents, including self-storage investors, developers, managers, brokers, and bankers from throughout the United States, accounting for over 100 million square feet of self-storage property, are derived primarily from The Self-Storage Top Operators list compiled by *Mini-Storage Messenger*. The survey highlights key information relating to general market conditions for self-storage,

capitalization rates, financing, optimism index, and other current, relevant information for the asset class. New rules of the game are indicated as market players are waiting for the capital crises to stabilize. Consequently, overall capitalization rates increased to 7.55 percent nationwide, an increase of plus 36 basis points from last year (7.19 percent in Summer 2007). Nevertheless, the chief concern of investors is financing and over-supply. Clearly, the credit crunch is impacting overall capitalization rates and values resulting in more discipline in investment criteria.

While investors wait for lenders to return, industry consolidation suggests more portfolio transactions will take place, while brokers report fewer single-asset transactions. Investors appear confident in the long-term performance of the asset class while planning game strategy in the now uncertain economic and credit market conditions.

Real estate economists are always wary of predicting the date or time of

changing market conditions. Therefore, noting the concerns of the market is good for self-storage market conditions over the long run. The current stable to declining momentum in self-storage has exceeded the low tide of commercial-industrial real estate. Wise investors continue to express caution in view of these conditions. Self-storage is a neighborhood-specific asset with wide variances of market conditions even within a particular city or metropolitan statistical area (MSA). Therefore, local research remains the most important tool to investors.

The data indicates a self-storage market characterized by stable returns. Yet, after years of industry investment and expansion, the self-storage industry is increasingly expressing public concern about the future, particularly relating to interest rates, the availability of capital, and market conditions. For example, the *Self-Storage Almanac* reports a 17-year cycle with a vacancy rate range from 10.1

REGRESSION DEMAND PER CAPITA							
TABLE 12.2	Occupied Area	Total	Percentage of	Household	Average	Occupied	Demand
	(Square Feet)	Population	Renter Occupied Housing Units	Size	Household Income	Supply	Estimate
Subject - 3 Mile Ring	803,659	202,725	49.60%	3.36	\$67,777	3.96	5.35
Subject - Polygon	459,766	85,362	48.80%	3.02	\$58,802	5.39	5.83
Fairfield	784,674	148,665	38.10%	3.03	\$68,765	5.28	4.64
Otay Mesa	1,201,217	221,710	44.10%	3.34	\$56,669	5.42	4.73
San Diego	1,547,950	315,240	42.30%	3.19	\$62,257	4.91	3.63
Las Vegas Polygon	369,720	52,816	44.78%	2.47	\$66,293	7.00	5.18
Hawthorne	1,067,919	287,409	58.20%	3.10	\$74,576	3.72	4.89
Carona	399,836	111,500	28.20%	3.34	\$66,391	3.59	4.70
Santa Clarita	692,979	147,000	26.26%	3.05	\$81,363	4.71	3.97
Van Nuys	930,850	208,553	64.70%	2.55	\$56,187	4.46	5.18
Orange	638,520	148,753	36.80%	2.95	\$78,297	4.29	4.50
Cypress	185,006	42,427	28.40%	3.00	\$67,400	4.36	4.88
Colton	179,239	44,633	43.07%	2.89	\$33,005	4.02	5.48
Hesperia	314,183	66,152	26.40%	3.06	\$30,978	4.75	4.39
Foothill Ranch	269,886	56,663	30.00%	2.80	\$66,383	4.76	4.59
Aliso Viejo	405,624	111,145	30.10%	2.28	\$52,059	3.65	3.36
Pasadena	555,080	137,100	53.70%	2.60	\$47,800	4.05	5.09
Thousand Oaks	456,678	140,975	23.10%	2.75	\$101,095	3.24	3.54
Costa Mesa/Newport	766,039	171,200	49.60%	2.48	\$49,918	4.47	4.38
Simi Valley	373,975	113,069	23.60%	3.12	\$78,523	3.31	4.16
Anaheim	467,785	56,554	58.70%	3.24	\$47,602	8.27	6.96
Average	610,903	135,872	39.48%	2.91	\$62,398	4.65	4.65

percent to 18.6 percent with an average of 14.67 percent nationwide. This trend demonstrates the cyclical nature of the industry and underscores the importance of analysis in each trade area.

Clearly, investor sophistication and discipline are increasing in the decision process for the self-storage asset class. Market analysis of self-storage property appropriately considers industry trends, defines the subject trade area, measures conditions of supply, forecasts demand based on direct comparison as well as an econometric model of the subject trade area, and concludes with a forecast of market equilibrium. Cumulatively, these factors should be considered in investment decisions. Based on the foregoing analyses of national data and trends, the conclusion is that the self-storage market continues to experience demand for financially viable projects. However, as implied by the limited specificity of the analysis, defining winners and losers in the self-storage market is very site specific and increasing in importance.

Measuring Market Demand

Self-storage demand is measured in terms of square feet per person. An alternate measure is usage among households. To be consistent with the longest source of data, the analysis is based on square feet per person. For example, the 2008 *Self-Storage Almanac* indicates demand per person was 6.87 in 2008 nationwide, an increase exceeding 90 percent (or an annual compound rate of growth of 6.27 percent annually) over 3.31 square feet per person reported in 1996. While a good benchmark, this data does not directly relate to demand (measured in terms of square feet) for self-storage in a local trade area. A real trade area is analyzed but the location remains confidential. In the subject trade area, occupied supply (one indication of demand) is 3.96 per person with average occupancy of 90 percent. It is noted this is below state and national averages. Now, the critical question is: How much demand is there?

One measure is a simple econometric model developed by the Self Storage Industry Group of Cushman & Wakefield. After mining demographic data for meaningful mathematical relationships for self-storage, there are four characteristics key to demand: population, percentage of renters, average household size, and average household income. The data is analyzed in a regression model detailed in Table 12.2.

Testing for relationships and rank, these variables indicate moderate correlation with a co-efficient of .42436 or R squared (multiple R of .651431) and indicates demand of 5.35 square feet of self-storage per person for the variables in the three mile trade area (Excel regression). Comparatively, the polygon (a separate, defined trade area utilized as a test of reasonableness) indicates new demand of

0.44 square feet per person. Based on the three-mile ring, there is demand of 1.39 (5.35 -3.96 = 1.39) square feet of additional supply or a total of 281,716 square feet (1.39 SF x 202,725 population). The research proofs, compared to the subject trade areas are shown in Table 12.2.

Market Equilibrium

The market appears to be under-supplied with strong demand characteristics near the subject (in a three-mile ring) due to local demographic factors. Clearly, a careful analysis of existing supply and competitive position is warranted. The subject project is newer and has a competitive position above fair share in a market or trade area described as under-supplied. These factors are positive risk elements and must be considered in valuation.

SELF-STORAGE MARKET EQUILIBRIUM		
TABLE 12.3	Element	Square Feet
	Existing Supply	894,563
	Supply Razed	0
	New Construction	75,528
	Total Supply	970,091
	Less Occupancy (90% of existing)	(803,659)
	Available Supply	166,432
	Less (Stabilized Vacancy) (10%)	(89,456)
	Subtotal (Remaining Supply)	76,976
	Demand (Absorption)	281,716
	Remaining Under-Supply	204,740
	Equilibrium Forecast	Under-Supplied

COST PER SQUARE FOOT			
TABLE 12.4	Element	Self-Storage	Cost Budget
	Reference	Section 14, Page 28	Developer
	Base	\$37.18	\$53.00
	Elevators	-	-
	Sprinklers	\$2.00	-
	Size	-	-
	Current	1.09	-
	Local	1.15	-
	Cost New	\$49.11	\$53.00
	Gross Building Area	89,397 SF	89,397 SF
	Component Direct Costs	\$4,390,287	\$4,738,041



Looking at the subject immediate neighborhood is tempered by overall market conditions in the other trade areas. Accounting for both areas or an inclusive three-mile ring, there is additional demand for additional self-storage. As self-storage is a neighborhood-specific asset, it appears there is sufficient demand for the new product. Therefore, market conditions are favorable for new development. Specifically, the subject trade area is defined as under-supplied.

Qualitatively, these factors underscore the importance of market analysis in self-storage property and must be considered in the conclusions of the quantity, quality, and durability of the income level. Careful cash flow (static) modeling is required to reflect these market characteristics. These factors are also considered in the valuation analysis and conclusions to insure long-run viability as an investment class.

Valuation

In this analysis of appraisal, all three approaches are used in determining the market value of the subject. The purpose of the appraisal is to estimate the market value "as is" at a given date. Market value is briefly described as 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. Market value "as is" means an estimate of the market value of a property in the condition observed upon inspection and as it physically and legally exists without hypothetical conditions, assumptions, or qualifications as of the date of inspection.

As an asset class, self-storage is generally not institutional grade (although REITs are widely traded). Consequently,

the investment market primarily relies on direct capitalization in the income capitalization approach. For example, key industry brokers, property owners, and property managers utilize direct capitalization as the primary tool of income capitalization, yet the use of discounted cash flow analysis is rising rapidly. These methodologies are corroborated by survey research as contained in the Summer 2008 Investor Survey. In fact, the survey indicates 67 percent of respondents use direct capitalization as the primary tool of valuation analysis (33 percent reported using some discounted cash flow analysis with an average yield rate or internal rate of return of 10.5 percent in a range of 10 percent to 11 percent). The cost and sales comparison approach are utilized to test the reasonableness of the income capitalization approach and are given secondary consideration in the final value conclusion.

Cost Approach

The cost approach is not often used by investors as a primary tool of asset pricing and is generally given the least emphasis in the final value conclusion. Nevertheless, the cost approach is an important benchmark to test the highest and best use conclusions (including market analysis conclusions of feasibility) and is utilized for an estimate of the subject land value and insurable value (land value and insurable value are not profiled). More recently, some investors' buy criteria is based on a price below replacement cost.

Direct cost data should be based on survey research as well as direct cost comparable data (when available). In this example, the subject is a newer project with a recent cost budget. The data is compared to cost data published by Marshall Valuation Services. In Section 14, page 28, the subject is estimated to be a Class C (concrete, block construction), good quality mini-warehouse with a base cost of \$49.11 per square foot. The data by component is adjusted for the following variables: current and local cost multipliers. Comparatively, the subject

TABLE 12.5		COST APPROACH SUMMARY	
	Direct Costs		
	Self Storage	\$4,550,000	
	Office-Apartment	\$ 0	
	Site Improvements	\$ 259,410	
	Subtotal	\$4,809,410	
	Indirect Costs (10%)	\$ 480,941	
	Subtotal		\$5,290,351
	Developer's Profit (20%)		\$1,058,070
	Subtotal		\$6,348,421
	Less Depreciation (2.86%)		(181,383)
	Depreciated Value of Improvements		\$6,167,038
	Land Value		\$3,500,000
	Cost Approach Conclusion		\$9,667,038
	Rounded (to nearest significant number)		\$9,665,000

TABLE 12.6		SUMMARY OF BUILDING SALES DATA				
Sub.	Date	Name	Price	NOI/SF	\$/SF	
	Current	Subject Example	\$	\$9.75	\$	
1)	9/2006	Self Storage Comparable A	\$6,200,000	\$ 9.52	\$123.02	
2)	7/2006	Self Storage Comparable B	\$4,580,000	\$ 9.89	\$129.91	
3)	7/2006	Self Storage Comparable C	\$10,400,000	\$11.25	\$144.97	
4)	3/2006	Self Storage Comparable D	\$8,200,000	\$10.31	\$125.73	
5)	5/2005	Self Storage Comparable E	\$8,300,000	\$10.08	\$126.18	
		Averages	\$7,356,000	\$10.21	\$129.96	

cost budget at the time of development indicates direct costs of \$53 per square foot. The data demonstrates a trend of rising construction costs. Considering both techniques and the small range, the average is reasonably concluded for direct costs of \$4,550,000 (\$50.90 per square foot).

Cost estimates should account for site improvements such as parking and landscaping (generally at about \$2 to \$4 per square foot of land area). Indirect costs include the following: taxes during construction, legal and accounting fees, leasing and marketing expenses, and loan fees or points. A range of eight percent to 12 percent of direct cost is typical of the construction industry. The direct cost data is summarized in Table 12.5.

The cost estimate does not include developer compensation for overhead or compensation for time and effort in the project. As outlined in the *Self-Storage Investor Survey – Summer 2008*, an average profit factor of 15.86 percent is forecast on feasible, self-storage projects (building costs only, not applied to land value). In this example, a profit factor of 20 percent applied to improvement cost is reasonable because of the strong market conditions (demand exceeds supply). Depreciation considers effects from physical deterioration, functional obsolescence, and external obsolescence. Depreciation is defined as a loss in property value from any cause. As the subject is relatively new, nominal depreciation of one year is estimated with a total economic life of 35 years, suggesting total depreciation of 2.86 percent. The subject is detailed in the cost approach summary in Table 12.5.

Sales Comparison Approach

Sometimes called the market approach, the direct sales comparison approach involves investigation of recent sales of similar type properties and comparing them with the subject to arrive at an indication of value. This approach is based on the premise that an informed purchaser would pay no more for a property than

the cost of acquiring an existing property with the same utility. The weakness of the approach is in accurately accounting for the variables among the self-storage building sales. For example, as a test of reasonableness, several tools of analysis are warranted. On this basis, the sales comparison approach is generally given secondary consideration in the final value conclusion. A brief analysis is presented, beginning with comparable sales data in Table 12.6.

Analysis of the data set centers around elements of comparison that are the characteristics of properties and transactions that cause the price paid for real estate to vary. There are 10 common elements of comparison that should always be considered in sales comparison analysis (*The Appraisal of Real Estate*, Twelfth Edition, page 426), summarized in Table 12.7.

Units of Analysis

The building sales data indicates a value range from \$123.02 to \$144.97 per square foot with an average of \$129.96 per square foot. Moreover, the range of

net operating income per square foot is from \$9.52 to \$11.25 with an average of \$10.21 per square foot. Two units of comparison are used in this analysis: the effective gross income multiplier (EGIM) and the net operating income per square foot. Both value indications are correlated to a final estimate of value of the subject under the sales comparison approach with a comparison to the range of price per unit and price per square foot from the data set.

TABLE 12.7 ELEMENTS OF COMPARISON	
1)	Real property rights conveyed
2)	Financing terms
3)	Conditions of sale
4)	Expenditures Made Immediately After Purchase
5)	Market Conditions (Date)
6)	Location
7)	Physical Characteristics
8)	Economic Characteristics
9)	Use
10)	Non-realty Components

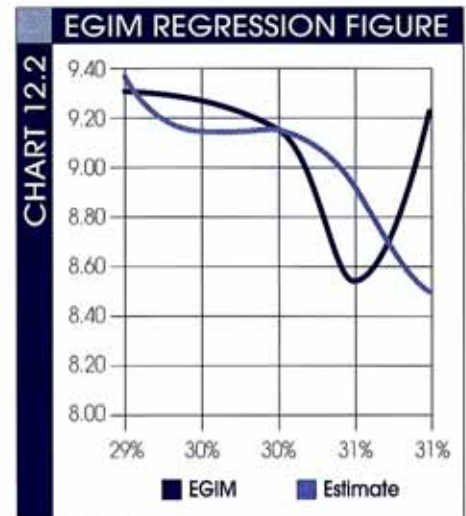


TABLE 12.9 EGIM ANALYSIS			
Item	EGIM	Expense(%)	
2)	9.29	29%	
3)	9.24	30%	
1)	9.18	30%	
4)	8.55	31%	
5)	9.22	31%	
Average	9.10	30%	
SUBJECT	8.75	33%	

TABLE 12.8 NOI PER SQUARE FOOT ADJUSTMENT					
Number	NOI/SF	Variance	Price/SF	Adjusted Price/SF	
One	\$9.52	0.95%	\$123.02	\$124.18	
Two	\$9.89	-2.83%	\$129.91	\$126.23	
Three	\$11.25	-14.58%	\$144.97	\$123.84	
Four	\$10.31	-6.79%	\$125.73	\$117.19	
Five	\$10.08	-4.66%	\$126.18	\$120.30	
Average				\$122.35	

POTENTIAL GROSS INCOME									
TABLE 12.10	Total Units	Rented Units	Units Outside	Units Inside	Rent Outside	Rent Inside	Monthly Rent	Annual Rent	
	5x5	77	0	31	46	\$50	\$45	\$3,620.00	\$43,440.00
	5x10	177	0	71	106	\$90	\$85	\$15,400.00	\$184,800.00
	7.5x10	45	0	18	27	\$115	\$105	\$4,905.00	\$58,860.00
	10x10	118	0	47	71	\$145	\$135	\$16,400.00	\$196,800.00
	10x12.60	3	0	2	1	\$170	\$160	\$500.00	\$6,000.00
	10x15	118	0	47	71	\$190	\$180	\$21,710.00	\$260,520.00
	10x20	110	0	44	66	\$220	\$210	\$23,540.00	\$282,480.00
	10x25	32	0	13	19	\$260	\$250	\$8,130.00	\$97,560.00
	10x30	5	0	2	3	\$300	\$280	\$1,440.00	\$17,280.00
	Subtotal:	685	0	275	410	0	0	\$95,645	\$1,147,740.00
	16 RV	16	0	16		\$115		\$1,840.00	\$22,080.00
	Total: Potential Gross Income							\$97,485	\$1,169,820

COMPARABLE RENT DATA SUMMARY										
TABLE 12.11	Unit	Subject	Market	One	Two	Three	Four	Five	Six	Average
	5x5	\$50	5 x 5	\$54	\$49	\$59	\$45	\$49	\$49	\$51
	5x10	\$90	5 x 10	\$84	\$82	\$85	\$69	\$90	\$90	\$83
	10x10	\$145	10 x 10	\$134	\$150	\$129	\$129	\$138	\$145	\$138
	10x15	\$190	10 x 15	\$170	\$190	\$194	\$175	\$173	\$189	\$182
	10x20	\$220	10 x 20	\$209	\$226	\$209	\$198	\$199	\$209	\$208
	10x25	\$260	10 x 25	\$260	\$239	n/a	\$250	\$255	\$264	\$254
	10x30	\$300	10 x 30	n/a	\$303	n/a	\$300	\$305	\$310	\$305
	RV	\$115	RV	n/a	n/a	\$109	\$115	\$115	\$115	\$114

of \$1,084,423 with an expense ratio of 33.08 percent as detailed in the income capitalization approach. The EGIM utilized to derive a value estimate is selected from the data range, not adjusted as in other units of comparison. The EGIM is most affected by the income characteristics of the sale. In this regard, an analysis of the expense ratios (expenses to the effective gross income) and the corresponding EGIM is appropriate as analyzed in Tables 12.9 and Chart 12.2.

Utilizing simple linear regression, the data indicates the subject warrants a unit value above average with fair to strong correlation (coefficient of -.59). However, the data demonstrates that as the expense ratio decreases, the EGIM increases. This data set is consistent with market trends and also suggests an overall capitalization rate below the average of the data set is warranted.

Under these parameters, the subject warrants a unit value conclusion above average. As the income based units of analysis are impacted by the overall capitalization rate not measured in this analysis, a unit value conclusion or an EGIM of 8.75 is concluded. The total value is calculated as follows:

$\$1,084,423 \times 8.75 =$	\$9,488,701
Rounded to (nearest significant number):	9,500,000

NOI Per Square Foot Adjustment

It is very difficult to accurately derive a dollar or percentage adjustment for each variable. For example, the data shows a value range (unadjusted). Furthermore, the data does not specifically demonstrate adjustments for all the variables. This technique compares each sale to the subject based on the net operating income per square foot of rentable area. This results in an absolute difference, accounting for all the variables, in terms of one percentage adjustment. This absolute percentage variance between the comparable and the subject is directly applied as a net adjustment to the price per square foot. The analysis is summarized in Table 12.8.

Adjustment

This approach demonstrates the significance of the income stream. In this example, the subject forecast of net operating

income is essentially corroborated by the data set. The subject variance (slightly lower) is because of the configuration. The variance among the data is also the overall capitalization rate. The data indicates a range of 59 basis points with an average overall capitalization rate of 7.86 percent. Considering these factors, the subject warrants a unit value conclusion near average or \$125 per square foot. Under these parameters, the total value estimate is calculated as follows:

$75,528 \text{ square feet} \times \$125.00 =$	\$9,441,000
Rounded to (nearest significant number):	\$9,450,000

Effective Gross Income Multiplier

The effective gross income multiplier (EGIM) is based on the sales price divided by the effective gross income of the sale (after vacancy). The subject effective gross income is derived from the estimate

Approach Conclusion

The two indications of value for the subject sales comparison approach are summarized as follows:

NOI/Square Foot:	\$9,450,000
Effective Gross Income Multiplier:	\$9,500,000

The analysis of the data includes quantitative and qualitative techniques to derive reasonable adjustments to the data set. Quantitative techniques used include linear regression and paired sales analysis. The primary approach conclusions indicate a small variance. Such close correlation is good support for an approach conclusion within the indicated range. Furthermore, the approach conclusion is approximately \$125.78 per square foot or \$13,859 per unit. Comparably, the data indicates averages of \$124.13 and \$13,367, respectively. The variance is primarily due to configuration and underscores the difficulty of accurately adjusting data solely utilizing these two units of analysis. Therefore, the approach conclusion is \$9,500,000. The sales comparison approach is given less significant emphasis in the final value estimate to reflect the market of this asset class. The approach also demonstrates market demand for self-storage product and limited availability of product for sale. Consequently, pricing is increasing and marketing times are decreasing in this trade area.

Income Capitalization Approach

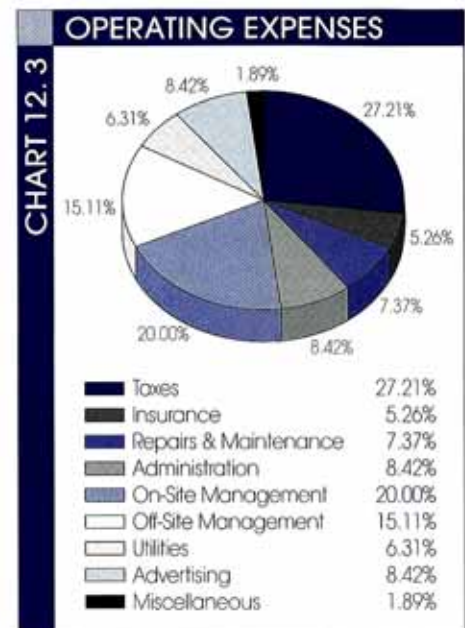
The income capitalization approach considers the market value of the subject from the perspective of a typical investor. In this regard, direct capitalization reflects the

KEY VARIABLES	
TABLE 12.12	1) Lease Basis
	2) Escalation
	3) Concessions
	4) Conditions
	5) Market conditions (time)
	6) Location
	7) Physical Characteristics

market. It demonstrates the expectations of the market based on a static (stabilized scenario) cash flow model. Therefore, the income capitalization approach conclusion is given primary emphasis in the final value conclusion to be consistent with the self-storage investment market and most probable buyers.

The potential gross income consists of rental income and other income. Rental income is derived from the self-storage units. The only reliable way to calculate rental income is by individual unit as outlined in Table 12.11. Analyzing rent per square foot can be very misleading and lead to erroneous results because rental income is dependent on the unit mix. Ancillary income includes late fees, administrative fees and retail sales of storage items (from the office), truck rentals, and other miscellaneous items. In this example, other income is derived from all these sources except for truck and equipment rentals. Ancillary income is typically two percent to five percent of gross income. The forecast rent roll, detailing potential gross income, is summarized in Table 12.12.

As a comparison and to determine market rent for the subject, a survey of similar self-storage properties in and near the trade area has been conducted. Data has been researched and analyzed for the most typical unit sizes. Data specifics



ANALYSIS OF OPERATING EXPENSES							
TABLE 12.13	Location	Nationwide			SUBJECT FORECAST		
	Year	2008				2007	
Units	Varies				685		
Area (SF)	Varies				75,528		
Occupancy	Varies				90%		
Scenario		Low \$/SF	High \$/SF	Mean \$/SF	Dollars	\$/SF	% of EGI
Operating Revenues							
Rental Income	n/a	n/a	n/a		\$1,049,328	\$13.89	96.76%
Ancillary Income	n/a	n/a	n/a		\$35,095	\$0.46	3.24%
Effective Gross Income	n/a	n/a	n/a		\$1,084,423	\$14.36	100%
Operating Expenses							
Real Estate Taxes	\$0.01	\$2.78	\$0.72		\$97,650	\$1.29	9.00%
Insurance	\$0.01	\$1.23	\$0.16		\$18,882	\$0.25	1.74%
Repairs & Maintenance	\$0.01	\$1.79	\$0.26		\$26,435	\$0.35	2.44%
Administration	\$0.01	\$1.90	\$0.58		\$30,211	\$0.40	2.79%
On-Site Management	\$0.04	\$2.19	\$0.89		\$71,752	\$0.95	6.62%
Off-Site Management	\$0.02	\$1.72	\$0.49		\$54,221	\$0.72	5.00%
Utilities	\$0.01	\$2.12	\$0.28		\$22,658	\$0.30	2.09%
Advertising	\$0.01	\$1.44	\$0.28		\$30,211	\$0.40	2.79%
Miscellaneous	\$0.01	\$2.03	\$0.43		\$6,798	\$0.09	0.63%
Total Expenses (SF)	\$0.13	\$17.20	\$4.09		\$358,818	\$4.75	33.09%
Total Expenses (% of EGI)	5.09%	70.00%	38.50%		33.09%	33.09%	33.09%

concerning the rent rate, basis, term, concessions, and other important parameters have been verified. The self-storage rental data indicates a wide value range for the seven unit sizes surveyed. As most of the comparables are within the subject trade area, most of the variances among the data set are due to distinct characteristics, such as low or high demand for a particular unit size. The data is analyzed to a base unit size (10-by-10 inside). In cases of inexact sizing, the most close unit match is compared to the category. The foregoing comparable lease data is summarized in Table 12.11.

Adjustment of comparable rent data is very difficult because, unlike adjustments in the other approaches, there is limited text book methodology. Nevertheless,

rental adjustments should follow a logical and sequential path to derive reasonable market rate conclusions. Adjustments should account for financial aspects of the lease data, as well as location and physical characteristics. More important than mathematical equivalencies, however, is actual data. In this regard, data is based on quoted coupon rates that correlate well with specific data. For example, in the survey of comparable data, managers were queried as to the actual amount being paid by recently signed tenants as the representative rate of the comparable (and other parameters such as specials, discounts, or other concessions). The seven key variables that warrant consideration for adjustment of the comparable data are summarized in Table 12.12.

After adjustment, the average of the data set is \$138.00 per unit in a range of \$129.00 to \$150.00, corroborating the subject forecast rate of \$145.00 per unit per month. As the subject competitive position will be high in the trade area, a unit value conclusion slightly above average (5.07 percent) is warranted for the subject. Potential gross income of the subject is detailed in Table 12.10 indicating potential gross rental income of \$1,169,820 annually. Ancillary income is reasonably forecast to be three percent of rental income or \$35,095 annually.

Vacancy

Vacancy is comprised of three main components: stabilized or physical vacancy, collection loss or credit, and rebates. In the subject analysis, all three components are combined to form a long-term vacancy factor. Considering the subject competitive position and typical turnover, a physical vacancy factor of eight percent is concluded for the subject (this approximates one month vacancy for each unit in one year). As to credit loss, the market will remain under-supplied. Therefore, a nominal credit loss of one percent is reasonably concluded. Rebates, generally for short terms and used irregularly, are estimated at one percent over the long run. Under these parameters, long term vacancy is concluded to be 10 percent at the subject. Such a forecast is consistent with the forecast of market equilibrium, long-run vacancy trends and the subject competitive position within the market.

Operating Expenses

The subject operates on a full-service or gross basis, meaning all building operating expenses are paid by the owner including fixed and variable expenses. Fixed expenses do not vary with occupancy and include real estate taxes and insurance. Variable expenses vary with the level of occupancy and include the following: repairs and maintenance; administration; on-site management; off-site management; utilities and advertising; as well

MARKET-DERIVED OVERALL CAPITALIZATION RATES				
Sale Date	Number	Name	Cap Rate	
September-2006	One	Self Storage Comparable A	7.74%	
July-2006	Two	Self Storage Comparable B	7.61%	
July-2006	Three	Self Storage Comparable C	7.76%	
March-2006	Four	Self Storage Comparable D	8.20%	
February-2006	Five	Self Storage Comparable E	7.99%	
Average Overall Capitalization Rate			7.84%	

DIRECT CAPITALIZATION			
Rental Income		\$1,169,820	
Ancillary Income		<u>\$35,095</u>	
Potential Gross Income		\$1,204,915	
Less - Vacancy (10%)		<u>\$(120,491)</u>	
Effective Gross Income			\$1,084,423
Less - Expenses			
Taxes		\$97,650	
Insurance		\$18,882	
Repairs & Maintenance		\$26,435	
Administration		\$30,211	
On-Site Management		\$71,752	
Off-Site Management		\$54,221	
Utilities		\$22,658	
Advertising		\$30,211	
Miscellaneous		<u>\$6,798</u>	
Total Expenses (32%)			<u>\$(358,818)</u>
Net Operating Income			\$725,605
Capitalization Rate			<u>0.075</u>
Market Value Indication			\$9,674,738
Subject Conclusion (Rounded)			\$9,700,000

as miscellaneous. Self-storage property rarely incurs reserves for replacement. Due to a relatively low break-even point with respect to occupancy, self-storage expenses tend to be relatively inelastic or stable (in terms of total amount).

Data is analyzed on the rentable area per square foot and as a percentage of the effective gross income. To assist in the forecast of operating expenses, comparable expense data in the form of survey research and specific expense comparables are referenced. The survey research data is compiled from 513 properties nationwide collected in 2008 (based on year-end 2007 data). The data was published by MiniCo as the *2008 Expense GuideBook for Self-Storage* authored by Cushman & Wakefield, Inc. The data is detailed on a national and western region basis and is compared to the subject forecast.

The difficulty in utilizing survey research is that the scope and methods of accumulating data vary for each category. Consequently, the data can be skewed by a limited amount of directly comparable data. Moreover, this explains why there may be large variances in several categories, but the overall expenses are generally similar. The function of the comparable data is to provide a foundation for analyzing the subject operating history as the basis of the forecast. Expenses can vary widely, particularly when analyzed solely on a single unit of analysis such as per square foot of rentable building area. Therefore, the data is analyzed on both a per square foot basis and expressed as a ratio of effective gross income as a test of reasonableness. The subject expense forecast is summarized in Chart 12.3. Based on the cumulative analyses, the subject income and expense forecast are reasonable as outlined.

Overall Capitalization Rate

The overall capitalization rate is calculated by dividing the net operating income by the sales price. This basic direct capitalization formula can simply be described as IRV (where I is income, R is capitalization rate, V is value) or $I/R = V$ (*The Appraisal of Real Estate*, Twelfth Edition, page 529). Ideally, the overall capitalization rate is selected from the market through sales of similar types of property. The data is summarized in Table 12.15.

The data indicates a range of 59 basis points, suggesting further tools of analysis are warranted. To assist with understanding the motivations and expectations of market participants and to provide a foundation for yield analysis, other techniques such as debt coverage ratio analysis and band of investment can be utilized.

In this asset class, however, static or direct analysis is the preferred capitalization methodology. For added support, the Summer 2008 Investor Survey completed by the Self Storage Industry Group of Cushman & Wakefield indicates a target overall capitalization rate in a stabilized pro forma of 7.55 percent. Typically, the market data is emphasized in the conclusion of the subject overall capitalization rate. The market data corroborates the survey research and secondary techniques of estimating the overall capitalization rate for the subject. Clearly, the data supports an overall capitalization rate in a range from 7.25 percent to eight percent for the subject. Therefore, based on the foregoing, an overall capitalization rate of 7.5 percent is reasonably concluded for the subject.

Direct Capitalization

Direct capitalization considers the income from one stable year of operation of the subject and capitalizes it into an indication of value. Under these parameters,

the direct capitalization and the income summary are detailed for the subject in Table 12.15.

Final Value Conclusion

The significance, applicability and defensibility of each approach conclusion is weighted in the determination of the final value conclusion. On this basis, the value conclusions from the three approaches are summarized as follows:

Scenario:	Prospective:
Cost Approach:	\$9,665,000
Sales Comparison Approach:	\$9,500,000
Income Capitalization Approach:	\$9,700,000

In this example, a narrow range of value is indicated of \$200,000 or 2.06 percent. Moreover, the data indicates the project is financially viable as shown by market analysis (demand) and valuation (income approach is greater than cost approach). The small variance in the three approaches suggests an approach conclusion anywhere within the range is reasonable. However, most investors emphasize the income capitalization approach.

A powerful economic model, an appraisal is an excellent tool to determine the value or worth of an individual self-storage asset. Appraisal is complex and requires experience to understand and utilize properly, although the model is simplified for illustration in this example. As the self-storage asset class has risen in sophistication, so must the tools to analyze the market. ■