

In simple terms, an appraisal is “the act or process of developing an opinion of value” of an asset (The Appraisal of Real Estate, 15th Edition). A self-storage appraisal is simply the economic model or methodology of developing an opinion of value. Appraisal has evolved as the asset class has become significantly more sophisticated in recent years. Therefore, the focus of this section is on key points to analyze when appraising or arriving at an opinion of value.

approach is emphasized in self-storage valuation and will be analyzed first.

The Income Capitalization Approach

The income capitalization approach reflects the subject’s income-producing capabilities. This approach is based on the assumption that value is created by the expectation of benefits to be derived in the future. Specifically estimated is the amount an investor would be willing to pay to receive an income stream plus reversion value (resale) from a property over a period of time. The two common valuation techniques associated with the income capitalization approach are direct capitalization and the discounted cash flow (DCF) analysis.

The basis of an income forecast for valuation is in the market conditions of the subject trade area, the historical trends of the subject property, and comparable data. As to market conditions, a determination should be made if a trade area (often defined as a three-mile radius, but this can be tested by ZIP code studies of existing customers) is under-supplied, over-supplied, or at equilibrium. This

There are three specific approaches to value that reflect distinct methods of data analysis: the Cost Approach, the Sales Comparison Approach, and the Income Capitalization Approach. The use of two or three of these approaches are then reconciled into a final opinion of value.

Table 15.1 – Demand Forecast

| | Total Population | % of Renters | Household Size (Avg.) | Average Household Income | Existing Supply (SF) | Existing Supply (SF) / Capita | Calculated Demand (SF) / Capita | Demand - Supply (SF) / Capita | Total Unsatisfied Demand (SF) |
|----------------|------------------|--------------|-----------------------|--------------------------|----------------------|-------------------------------|---------------------------------|-------------------------------|-------------------------------|
| 3-Miles Radius | 200,439 | 49.4% | 3.31 | \$79,320 | 1,080,754 | 5.39 | 7.75 | 2.36 | 472,648 |

Source: Compiled by Newmark Valuation & Advisory

Appraisal History

The economic concepts of value have been evolving for thousands of years, but the economic model of real estate appraisal was first codified in the 1930s by The American Institute of Real Estate Appraisers (now the Appraisal Institute) and the publication of the first edition of “The Appraisal of Real Estate” in 1951. The components of the valuation process can be outlined as:

- Identification of the Problem (for appraisal, usually identifying the assignment)
- Scope of Work Determination
- Data Collection and Property Description
- Data Analysis
- Application of the Approaches to Value

There are three specific approaches to value that reflect distinct methods of data analysis: the Cost Approach, the Sales Comparison Approach, and the Income Capitalization Approach. The use of two or three of these approaches are then reconciled into a final opinion of value. For self-storage, the primary investment criterion is based on cash flow. As a result, the income capitalization

Table 15.2 – Self-Storage Market Equilibrium

| Trade Area | 3-Mile Radius |
|------------------------------|----------------|
| Existing Supply | 1,080,754 |
| New Construction | 0 |
| Total Supply | 1,084,754 |
| Less: Occupied Square Feet | -1,005,608 |
| Available Supply | 75,146 |
| Less: Market Vacancy (5%) | -54,038 |
| Subtotal (Remaining Supply) | -21,108 |
| Unsatisfied Demand | 472,648 |
| Demand Less Remaining Supply | 451,540 |
| Equilibrium Forecast | Under-Supplied |

Source: Compiled by Newmark Valuation & Advisory

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can be done qualitatively by analyzing the occupancy of all the competition. For example, as a guide, a trade area that has occupancy in the 90 percent or more range might reasonably be considered under-supplied. Benchmarks, such as the total square feet of self-storage per person, can be compared in a particular trade area to data published in the *Self-Storage Almanac* or other resources. For example, the *Self-Storage Almanac* indicates a national average of 5.91 square feet per person, but the CBSA data indicates a range by CBSA (Core Based Statistical Area) from 3.05 square feet per person (New York-Newark-Jersey City, NY-NJ-PA CBSA) to 12.79 square feet per person in Boise City, Idaho, CBSA. So, if occupancy is 90 percent, and the square footage per person is below the CBSA average and national average, a reasonable, qualitative conclusion may be under-supply. Quantitative models based on demographics and comparable data may rely on hedonic regression models or simple algorithms to determine stabilized demand in a trade area and compare forecast demand to existing supply. An example is shown in Tables 15.1 and 15.2 on page 115.

In these examples, the trade area shows physical occupancy of 92 percent and existing supply of 5.39 square feet per person, suggesting under-supply. An econometric model quantifies and corroborates the qualitative model and reflects stabilized demand above the CBSA average of 4.79 square feet per person. This variance highlights the importance of trade area analysis.

As to historical trends, a review of the subject property financials is best. An example is presented in Table 15.3 below.

Notice the pattern of Effective Gross Income or EGI. From 2017 to 2018, it increased \$63,537, an increase of 18.11 percent. From 2018 to 2019, EGI increased \$2,582 or 0.62 percent. The trailing 12 months (TTM) is not as good an indicator of calendar years due to seasonality and can be skewed. Given this history, an increase of \$19,469 or 4.67 percent is concluded in the Year 1 Forecast.

Table 15.3 – Historical Revenue / Expense & Year Forecast

| | 2018 Actuals | | 2019 Actuals | | 2020 Actuals | | Year 1 Forecast | |
|--------------------------------------|------------------|----------------|------------------|----------------|------------------|----------------|------------------|----------------|
| | Total | \$/SF | Total | \$/SF | Total | \$/SF | Total | \$/SF |
| Self-Storage Income | | | | | | | | |
| Actual Rent (Occupied) | \$319,453 | \$10.35 | \$383,948 | \$12.44 | \$384,564 | \$12.46 | \$397,660 | \$12.89 |
| Plus Market Rent (Vacant) | | | | | | | \$1,740 | \$0.06 |
| Potential Self-Storage Income | \$319,453 | \$10.35 | \$383,948 | \$12.44 | \$384,564 | \$12.46 | \$399,400 | \$12.94 |
| Billboard & Cell Tower Income | \$31,431 | 1.02 | \$30,473 | 0.99 | \$32,439 | 1.05 | 35,004 | 1.13 |
| Parking Income | \$0 | | \$0 | | \$0 | | 20,052 | 0.65 |
| Other Rental Income | \$0 | | \$0 | | \$0 | | 0 | |
| Ancillary Income | \$0 | | \$0 | | \$0 | | 19,970 | 0.65 |
| Total Potential Gross Income | \$350,884 | \$11.37 | \$414,421 | \$13.43 | \$417,003 | \$13.51 | \$474,426 | \$15.37 |
| Economic Vacancy | | | | | | | (\$37,954) | (\$1.23) |
| Effective Gross Income | \$350,884 | \$11.37 | \$414,421 | \$13.43 | \$417,003 | \$13.51 | \$436,472 | \$14.14 |
| Operating Expenses | | | | | | | | |
| Real Estate Taxes | \$42,708 | \$1.38 | \$51,468 | \$1.67 | \$55,355 | \$1.79 | \$48,939 | \$1.59 |
| Property Insurance | \$3,676 | 0.12 | \$4,026 | 0.13 | \$4,091 | 0.13 | 4,200 | 0.14 |
| Utilities | \$13,529 | 0.44 | \$13,213 | 0.43 | \$13,746 | 0.45 | 14,000 | 0.45 |
| Repairs & Maintenance | \$8,356 | 0.27 | \$4,439 | 0.14 | \$4,711 | 0.15 | 9,000 | 0.29 |
| Administration | \$9,332 | 0.30 | \$14,582 | 0.47 | \$18,447 | 0.60 | 14,500 | 0.47 |
| Off-Site Management (% of EGI) | \$0 | | \$0 | | \$0 | | 21,824 | 0.71 |
| On-Site Management | \$67,788 | 2.20 | \$89,780 | 2.91 | \$73,716 | 2.39 | 70,000 | 2.27 |
| Advertising | \$801 | 0.03 | \$0 | | \$0 | | 5,000 | 0.16 |
| Miscellaneous | \$0 | | \$0 | | \$0 | | 250 | 0.01 |
| Ground Lease | \$0 | | \$0 | | \$0 | | 0 | |
| Total Operating Expenses | \$146,190 | \$4.74 | \$177,508 | \$5.75 | \$170,066 | \$5.51 | \$187,713 | \$6.08 |
| <i>Expense Ratio</i> | <i>41.66%</i> | | <i>42.83%</i> | | <i>40.78%</i> | | <i>43.01%</i> | |
| Net Operating Income | \$204,694 | \$6.63 | \$236,913 | \$7.68 | \$246,937 | \$8.00 | \$248,759 | \$8.06 |

Source: Compiled by Newmark Valuation & Advisory

This modeling underscores the importance of distinguishing between economic and physical vacancy. Due to rent loss or nonpayment, there is usually credit loss on top of physical vacancy. Plus, offering concessions for new move-ins increases economic occupancy over physical occupancy. However, in recent years complex revenue enhancement models (or the ability to raise rents on existing tenants) have offset much of the credit and concession loss. Typically, a revenue enhancement model will raise rents on an existing tenant from seven percent to nine percent within the first six months of occupancy (as shown in the robust 2018 growth in EGI).

Operating expenses historically at the subject property should be compared to national data, such as the Self-Storage Expense Guidebook ...

Another test of reasonableness to forecasting collected income or EGI is the Cost of Occupancy (COO). The COO is the average annual rent of a unit (total rent collected divided by occupied units) compared to average annual household

income. In general, a ratio near two percent suggests rent upside. Alternatively, a ratio above 3.5 percent suggests less upside. In this case, the COO is 1.58 percent, suggesting continued upside in collected rents. As one person noted, some people spend more on coffee than the COO of a self-storage unit. So, who would bother to spend a Saturday moving a unit for a savings of seven percent to nine percent?

Operating expenses historically at the subject property should be compared to national data, such as the *Self-Storage Expense Guidebook* (also published by MiniCo) and expense comparables. Data should be analyzed by SF and as a ratio of EGI. An example is presented in Table 15.4 below.

The data indicates that the subject expenses as a \$/SF are high and as a ratio are close to the indicated range. It is important to note that in this case, real estate taxes are forecast to increase substantially due to local taxation laws and the definition of market value that assumes a sale. Real estate taxes have been rising in the sector, so a careful review of data and local taxation ordinances are warranted. Similarly, insurance and advertising costs have been rising in the sector and should be carefully considered when forecasting into the future. Now that a Year 1 forecast is concluded, a direct

Table 15.4 – Expense Comparables

| | National | West Pacific | CA | Comp 1 City Of Industry, CA | Comp 2 Upland, CA | Comp 3 Glendora, CA | 2017 Actuals | 2018 Actuals | 2019 Actuals | Stable Year Forecast |
|---------------------------------|---------------|---------------|---------------|-----------------------------|-------------------|---------------------|---------------|---------------|---------------|----------------------|
| Units | 618 | 701 | 707 | 791 | 316 | 520 | | | | 318 |
| Rentable SF | 68,405 | 69,286 | 69,698 | 79,105 | 30,410 | 54,815 | | | | 30,860 |
| Expense Year | 2019 | 2019 | 2019 | 2019 | 2019 | 2020 | | | | Year 1 |
| Income | | | | | | | | | | |
| Effective Gross Income | \$13.75 | \$15.65 | \$18.84 | \$17.36 | \$11.54 | \$18.79 | \$11.37 | \$13.43 | \$13.51 | \$14.14 |
| Operating Expenses | | | | | | | | | | |
| Real Estate Taxes | \$1.41 | \$1.13 | \$1.33 | \$2.60 | \$1.40 | \$1.56 | \$1.38 | \$1.67 | \$1.79 | \$1.59 |
| Property Insurance | \$0.23 | \$0.33 | \$0.30 | 0.33 | 0.12 | 0.35 | \$0.12 | \$0.13 | \$0.13 | \$0.14 |
| Utilities | \$0.34 | \$0.34 | \$0.28 | 0.16 | 0.44 | 0.28 | \$0.44 | \$0.43 | \$0.45 | \$0.45 |
| Repairs & Maintenance | \$0.47 | \$0.53 | \$0.44 | 0.30 | 0.27 | 0.47 | \$0.27 | \$0.14 | \$0.15 | \$0.29 |
| Administration | \$0.61 | \$0.75 | \$0.59 | 0.47 | 0.31 | 0.59 | \$0.30 | \$0.47 | \$0.60 | \$0.47 |
| Off-Site Management | \$0.76 | \$0.89 | \$0.99 | 1.08 | 0.00 | 1.08 | | | | \$0.71 |
| On-Site Management | \$1.06 | \$1.22 | \$1.45 | 1.00 | 2.23 | 1.67 | \$2.20 | \$2.91 | \$2.39 | \$2.27 |
| Advertising | \$0.29 | \$0.30 | \$0.37 | 0.23 | 0.03 | 0.31 | \$0.03 | | | \$0.16 |
| Miscellaneous | \$0.58 | \$1.00 | -\$0.03 | 0.00 | 0.00 | 0.00 | | | | \$0.01 |
| Ground Lease | | | | 0.00 | 0.00 | 0.00 | | | | \$0.00 |
| Total Operating Expenses | \$5.75 | \$6.48 | \$5.72 | \$6.17 | \$4.81 | \$6.32 | \$4.74 | \$5.75 | \$5.51 | \$6.08 |
| Operating Expense Ratio | 41.79% | 41.40% | 30.40% | 35.51% | 41.66% | 33.63% | 41.66% | 42.83% | 40.78% | 43.01% |
| Off-Site Management (% of EGI) | 5.51% | 5.68% | 5.24% | 6.22% | 0.00% | 5.77% | | | | 5.00% |

Source: Compiled by Newmark Valuation & Advisory

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capitalization and yield capitalization are appropriate and shown in the following tables (15.5, 15.6, and 15.7 on page 120).

- Relationships – A 10-year discounted cash flow model is the primary decision maker in over 85 percent of investors surveyed (3Q Investor Survey 2021 by Newmark and to be published in the January 2022 issue of *Mini-Storage Messenger* magazine). As outlined earlier, this is because of the increasing sophistication of the self-storage sector. It accounts for both cash flow (equity dividend) and appreciation (yield) during a typical 10-year holding period.

- The relationship of the cap rate and Internal Rate of Return (IRR) or discount rate should be within 50 basis points of the compound rate of the net operating income during the holding period. In this example, the net operating income is forecast to increase at 3.19 percent. With a cap rate of 5.5 percent, an IRR of 8.25 percent is within the 50 bps parameter.

- As a test of reasonableness, the relationship of cash flow to appreciation can be examined. In this example, the reversion or appreciation component represents 59 percent of total value, with the balance being attributed to cash flow. In an ideal market, the balance is 50 percent/50 percent. But in appreciating sectors and markets like this self-storage example, the reversion or appreciation component may be as much as 65 percent. Conversely, in down markets, the cash flow may be emphasized as much as 65 percent with only 35 percent of total value being attributable to appreciation.

Table 15.5 – Direct Capitalization Method

| Summary of Stabilized Net Operating Income Item Description | \$ / SF | Year 1 Total \$ |
|--|-----------------|--------------------|
| Self-Storage Income | | |
| Actual Rent (Occupied) | \$12.89 | \$397,660 |
| Plus Market Rent (Vacant) | \$0.06 | \$1,740 |
| Potential Self-Storage Income | \$12.94 | \$399,400 |
| Billboard & Cell Tower Income | 1.13 | 35,004 |
| Parking Income | 0.65 | 20,052 |
| Other Rental Income | - | 0 |
| Ancillary Income | 0.65 | 19,970 |
| Total Potential Gross Income | \$15.37 | \$474,426 |
| Economic Vacancy | 8% | (\$37,954) |
| Effective Gross Income | \$14.14 | \$436,472 |
| Operating Expenses | | |
| Real Estate Taxes | \$1.59 | \$48,939 |
| Property Insurance | 0.14 | 4,200 |
| Utilities | 0.45 | 14,000 |
| Repairs & Maintenance | 0.29 | 9,000 |
| Administration | 0.47 | 14,500 |
| Off-Site Management (% of EGI) | 0.71 | 21,824 |
| On-Site Management | 2.27 | 70,000 |
| Advertising | 0.16 | 5,000 |
| Miscellaneous | 0.01 | 250 |
| Ground Lease | - | 0 |
| Total Operating Expenses | \$6.08 | \$187,713 |
| Expense Ratio | | 43.01% |
| Net Operating Income | \$8.06 | \$248,759 |
| OAR | | 5.50% |
| Indicated Market Value 'As Is' | | \$4,522,898 |
| Indicated Market Value 'As Is' (Rounded) | | \$4,500,000 |
| | Price/SF | \$145.82 |

Source: Compiled by Newmark Valuation & Advisory

The Sales Comparison Approach

The sales comparison approach utilizes sales of comparable properties, adjusted for differences, to indicate a value for the subject. Valuation is typically accomplished using physical units of comparison such as price per square foot or economic units of comparison such as the effective gross income multiplier. Adjustments are applied to the property units of comparison derived from the comparable sale. The unit of comparison chosen for the subject is then used to yield a total value.

- **Unit of Analysis:** The appropriate unit for comparison in the sales comparison approach is the price per square foot of rentable area. For self-storage, the price per unit can be easily skewed due to variances in unit mix. For example, a price per unit analysis shows a higher range. Therefore, the price per square foot of rentable area is considered most credible.
- **Economic Characteristics:** One of the most underutilized adjustments particular to self-storage is Economics Characteristics. Since cash flow is the driver of investment decisions in the asset class, economic characteristics should be among the most important adjustments. Economic characteristics include attributes associated with a trade area beyond the location adjustment. For self-storage, this adjustment considers whether the conditions of the comparable trade area can be classified as oversupplied, undersupplied, or at equilibrium. Net operating income per square foot can be one benchmark tool; however, it is not a mathematical relationship and must be used with great care. Another measure of this variable relates to unit rent. For example, the operation of the business generates the net

Table 15.6 – Income Capitalization Approach

| Discounted Cash Flow Summary | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | CAGR |
|--------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|--------------|
| Self-Storage Income | | | | | | | | | | | | |
| Actual Rent (Occupied) | \$397,660 | \$409,590 | \$421,878 | \$434,534 | \$447,570 | \$460,997 | \$474,827 | \$489,072 | \$503,744 | \$518,856 | \$534,422 | 3.00% |
| Plus Market Rent (Vacant) | \$1,740 | \$1,792 | \$1,846 | \$1,901 | \$1,958 | \$2,017 | \$2,078 | \$2,140 | \$2,204 | \$2,270 | \$2,338 | 3.00% |
| Potential Self-Storage Income | \$399,400 | \$411,382 | \$423,724 | \$436,435 | \$449,528 | \$463,014 | \$476,905 | \$491,212 | \$505,948 | \$521,127 | \$536,760 | 3.00% |
| Billboard & Cell Tower Income | 35,004 | 36,054 | 37,136 | 38,250 | 39,397 | 40,579 | 41,796 | 43,050 | 44,342 | 45,672 | 47,042 | 3.00% |
| Parking Income | 20,052 | 20,654 | 21,273 | 21,911 | 22,569 | 23,246 | 23,943 | 24,661 | 25,401 | 26,163 | 26,948 | 3.00% |
| Other Rental Income | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Ancillary Income | 19,970 | 20,569 | 21,186 | 21,822 | 22,476 | 23,151 | 23,845 | 24,561 | 25,297 | 26,056 | 26,838 | 3.00% |
| Total Potential Gross Income | \$474,426 | \$489,659 | \$503,319 | \$518,418 | \$533,971 | \$549,990 | \$566,490 | \$583,484 | \$600,989 | \$619,018 | \$637,589 | 3.00% |
| Economic Vacancy | (\$37,954) | (\$39,093) | (\$40,265) | (\$41,473) | (\$42,718) | (\$43,999) | (\$45,319) | (\$46,679) | (\$48,079) | (\$49,521) | (\$51,007) | 3.00% |
| Effective Gross Income | \$436,472 | \$449,566 | \$463,053 | \$476,945 | \$491,253 | \$505,991 | \$521,170 | \$536,806 | \$552,910 | \$569,497 | \$586,582 | 3.00% |
| Operating Expenses | | | | | | | | | | | | |
| Real Estate Taxes | \$48,939 | \$49,918 | \$50,916 | \$51,934 | \$52,973 | \$54,033 | \$55,113 | \$56,216 | \$57,340 | \$58,487 | \$59,656 | 2.00% |
| Property Insurance | 4,200 | 4,326 | 4,456 | 4,589 | 4,727 | 4,869 | 5,015 | 5,165 | 5,320 | 5,480 | 5,644 | 3.00% |
| Utilities | 14,000 | 14,420 | 14,853 | 15,298 | 15,757 | 16,230 | 16,717 | 17,218 | 17,735 | 18,267 | 18,815 | 3.00% |
| Repairs & Maintenance | 9,000 | 9,270 | 9,548 | 9,835 | 10,130 | 10,433 | 10,746 | 11,069 | 11,401 | 11,743 | 12,095 | 3.00% |
| Administration | 14,500 | 14,935 | 15,383 | 15,845 | 16,320 | 16,809 | 17,314 | 17,833 | 18,368 | 18,919 | 19,487 | 3.00% |
| Off-Site Management (% of EGI) | 21,824 | 22,478 | 23,153 | 23,847 | 24,563 | 25,300 | 26,059 | 26,840 | 27,645 | 28,475 | 29,329 | 3.00% |
| On-Site Management | 70,000 | 72,100 | 74,263 | 76,491 | 78,786 | 81,149 | 83,584 | 86,091 | 88,674 | 91,334 | 94,074 | 3.00% |
| Advertising | 5,000 | 5,150 | 5,305 | 5,464 | 5,628 | 5,796 | 5,970 | 6,149 | 6,334 | 6,524 | 6,720 | 3.00% |
| Miscellaneous | 250 | 258 | 265 | 273 | 281 | 290 | 299 | 307 | 317 | 326 | 336 | 3.00% |
| Ground Lease | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Total Operating Expenses | \$187,713 | \$192,855 | \$198,141 | \$203,576 | \$209,164 | \$214,909 | \$220,816 | \$226,890 | \$233,134 | \$239,555 | \$246,157 | 2.75% |
| Net Operating Income | \$248,759 | \$256,712 | \$264,912 | \$273,369 | \$282,089 | \$291,081 | \$300,354 | \$309,916 | \$319,776 | \$329,942 | \$340,425 | 3.19% |
| Capital Expenditure | | | | | | | | | | | | |
| Replacement Reserves (% of EGI) | \$4,365 | \$4,496 | \$4,631 | \$4,769 | \$4,913 | \$5,060 | \$5,212 | \$5,368 | \$5,529 | \$5,695 | \$5,866 | 3.00% |
| Near Term Capital Expenditure | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | |
| Total Capital Expenditure | \$4,365 | \$4,496 | \$4,631 | \$4,769 | \$4,913 | \$5,060 | \$5,212 | \$5,368 | \$5,529 | \$5,695 | \$5,866 | |
| Cash Flow | \$244,395 | \$252,216 | \$260,282 | \$268,599 | \$277,176 | \$286,021 | \$295,142 | \$304,548 | \$314,246 | \$324,247 | \$334,560 | 3.19% |
| KPIs | | | | | | | | | | | | |
| Rent Growth (Income in place) | | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Rent Growth (Market) | | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Other Income Growth | | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Economic Vacancy | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% | 8.00% |
| Expense Growth | | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |
| Ground Lease | | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% | 3.00% |

Source: Compiled by Newmark Valuation & Advisory

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operating income applied to the real estate. In general, there is a correlation between higher rent and higher value. As a result, an adjustment for economic conditions is considered. Unfortunately, precise data and a direct relationship are difficult to isolate. By looking at net operating income as a benchmark, and considering the other adjustments, an adjustment can be derived.

- **Adjustment Summary:** The total range of adjustments should always decline after the adjustment process, or what is the point of the exercise? In the following example, the range is narrowed from 90 percent to 15 percent. An example is presented in Table 15.8 below.
- **Effective Gross Income Multiplier (EGIM):** The EGIM tests the reasonableness of the forecast Year 1 cash flow to the concluded cap rate. Using the formula $1 - \text{expense ratio} / \text{EGIM}$ (or value divided by effective gross income), expense ratios can be compared to concluded cap rates. In general, the lower the expense ratio the higher the cap rate.

- **Secondary Approach:** For self-storage, the sales comparison approach is secondary. Because of the emphasis and impact of cash flow and relatively low sales volume in many markets, the price elasticity of self-storage can be very large. As previously discussed, the market emphasizes cash flow and the income approach significantly more than the sales comparison approach.

The Cost Approach

The cost approach is based on the proposition that the informed purchaser would pay no more for the subject than the cost to produce a substitute property with equivalent utility. This approach is particularly applicable when the property being appraised involves relatively new improvements that represent the highest and best use of the land, or when it is improved with relatively unique or specialized improvements for which there exist few sales or rents of comparable properties.

- **Applicable and Relevant:** The cost approach is best used for newer properties due to the challenges of estimating depreciation. However, some lenders want an estimate of remaining economic life to ensure the building is economically viable during the amortization period of a loan. This can create challenges and highest and best use questions of a self-storage property. Some investors like to purchase below replacement cost, but this metric can be difficult to quantify due to the wide range of replacement cost estimates, particularly as costs are currently fluctuating due to supply chain problems. Therefore, the applicability and the relevance of the cost approach warrants careful consideration to a credible opinion of value.

- **Land valuation:** Self-storage land can be difficult to entitle or obtain zoning approval. Municipalities prefer other property types that generate more jobs or retail sales tax revenue. Therefore, if land sales utilized in an appraisal are not purchased and entitled for self-storage, the land component of self-storage can be under-valued. In general, self-storage land approximates a range of 10 percent to 40 percent of total property value but is typically in a narrower range of 25 percent to 35 percent.

- A cost approach for self-storage typically represents a value upon completion. Depending upon the local market, it may be appropriate to add absorption costs for stabilization (rent loss and some profit for time during lease-up).


These guidelines can help a layperson review an opinion of value. Self-storage is a unique asset class, and an opinion of value should carefully review and consider these characteristics. If reviewing a value conclusion, these points can be utilized to consider the credibility of an opinion of value. 

Table 15.7 – Valuation Matrix

| Exit Cap. | Internal Rate of Return | | |
|--|-------------------------|-------------|-------------|
| | 8.00% | 8.25% | 8.50% |
| 5.50% | \$4,669,220 | \$4,583,135 | \$4,499,046 |
| 5.75% | \$4,547,062 | \$4,463,769 | \$4,382,403 |
| 6.00% | \$4,435,085 | \$4,354,351 | \$4,275,480 |
| General Cash Flow Assumptions | | | |
| Valuation Scenario: | As Is | | |
| Cash Flow Start Date: | 9/4/20 | | |
| Investment Holding Period: | 10 Years | | |
| Analysis Projection Period: | Years 1 - 11 | | |
| Indicated Market Value (Rounded): | \$4,500,000 | | |
| Cost of Sale | 2.00% | | |
| Percentage Residual | 59% | | |
| Indicated Market Value (\$/SF) | \$145.82 | | |

Source: Compiled by Newmark Valuation & Advisory

Table 15.8 – Sales Adjustment Summary

| Price Per Square Foot | Low | High | Average |
|---|----------|----------|----------|
| Unadjusted Range | \$108.33 | \$172.47 | \$131.38 |
| Adjusted Range | \$135.41 | \$155.23 | \$143.02 |
| Concluded Improved Sale Indication (S/SF) | \$143.00 | | |

Source: Compiled by Newmark Valuation & Advisory