

The overall capitalization rate, or “cap rate,” is used to convert income to value. One of the easiest ways to think of the relationship of a cap rate to value is the acronym IRV: Income divided by Rate equals Value (I/R = Value). As the cap rate goes down, the value goes up. Officially, the direct capitalization is defined by The Appraisal Institute in the Dictionary of Real Estate as follows (page 65):

“A method used to convert an estimate of a single year’s income expectancy into an indication of value in one direct step, either by dividing the net income estimate by an appropriate capitalization rate or by multiplying the income estimate by an appropriate factor. Direct capitalization employs capitalization rates and multipliers extracted or developed from market data. Only one year’s income is used. Yield and value changes are implied, but not explicitly identified.”

One of the easiest ways to think of the relationship of a cap rate to value is the acronym IRV: Income divided by Rate equals Value (I/R = Value).

To complicate matters, a cap rate can be calculated on last year’s net operating income (often called trailing), a forecast of next year’s expectations of net operating income (forecast). Moreover, the “true” cap rate is often a perspective, not a fact. For example, the seller may believe the cap rate was a 5.5 percent, implying a higher value, while the buyer may believe the cap rate was a six percent, implying a higher return. And the broker involved in the deal may report a 5.75 percent cap rate. While all three perspectives are important to understand, it doesn’t exactly determine the cap rate.

For comparison purposes, it is best to understand the forecast or stabilized cap rate (for example, this is the cap rate used in an appraisal) and the trailing cap rate to understand expectations of buyers and sellers in the transaction. It is also important to understand if expenses were adjusted to market, particularly real estate taxes, in the forecast or stabilized cap rate. For the purposes of this article, the stabilized or forecast (sometimes called Year 1) cap rate will be addressed because it is typically the most consistent cap rate

considered for comparison purposes (for example, it is the basis of Investor Survey’s on cap rates).

Capitalization Rates And Techniques

To understand the cap rate, four techniques will be analyzed: direct cap comparables, two mathematical models called the Band of Investment, and the Mortgage Equity Technique (or Akerson format), and Survey Research.

- **Direct Cap Comparables** – Deriving comparables from similar properties that have sold is generally the preferred technique when sufficient information is available. For example, what cap rate is reported? The trailing or the stabilized? Comparable cap rates are summarized in Table 14.1 below.

These properties are all stabilized economically (at least three years of operating history with stabilized physical and economic vacancy) and reflect Class-B assets. The primary variance is economic characteristics that can be simply measured in terms of NOI/SF of rentable area. The range is 67 basis points (bps), suggesting a large range. Bear in mind, this underscores how important it is to understand the perspective of the person verifying the cap rate. And these cap rates represent market expectations at the time of sale. The perception of investors of the self-storage market two years ago may vary to current conditions. Therefore, additional analyses are warranted.

Table 14.1 – Comparable Cap Rates

No.	Yr. Built	Sale Date	Rentable Area	Occ. %	Price per SF	OAR
1	1988	Jun-2020	28,359	90%	\$149	5.48%
2	2002	Aug-2020	55,780	92%	\$143	5.38%
3	1979	Nov-2020	47,562	89%	\$159	5.21%
4	1983	Jan-2021	50,253	90%	\$157	4.92%
5	1991	Mar-2021	69,825	92%	\$168	4.81%
6	1999	May-2021	28,113	94%	\$155	5.41%
Low Cap Rate						4.81%
High Cap Rate						5.48%
Average Cap Rate:						5.20%

Source: Compiled by Newmark Valuation & Advisory

Table 14.2 – Overall Capitalization Rates

Investment Type	Cap Rate Range	Average
Newmark Self Storage Investor Survey: 3rd Qtr. 2019	4.50% - 8.50%	5.60%
Newmark Self Storage Investor Survey: 3rd Qtr. 2020	4.50% - 8.50%	5.50%
Newmark Self Storage Investor Survey: 1st Qtr. 2021	4.25% - 8.00%	5.37%
Newmark Self Storage Investor Survey: 3rd Qtr. 2021	4.00% - 6.50%	4.93%

Source: Compiled by Newmark Valuation & Advisory

Section 14 • The Overall Capitalization Rate

• **Investor Surveys** – Survey research is based on periodic publications of the current thinking of investors, compared to historical performance data of comparable sales. Surveys are generally used as support and should not be relied upon as a primary source. They are very useful to understand real-time market dynamics. Surveys can vary in scope of research, so it is worthwhile to review a wide variety of publications. The results of the most recent self-storage investor surveys are summarized in Table 14.2 on page 111.

It is interesting to compare the sales data in Chart 1 to the survey research in Chart 2. For example, an average cap rate of 5.2 percent was indicated by the comparable sales chart, and the investor survey (most recent data) indicates a 4.93 percent cap rate overall. Segmented by investment quality, a Class-B average cap rate from

the survey is 5.1 percent (Newmark Self Storage Investor Survey: 3rd Qtr. 2021). This may reflect national data compared to geographic specific data. The investor survey data also suggests a significant downward trend over the past six months, suggesting self-storage real estate values have increased. Survey research may bifurcate among quality of the asset class as indicated in Table 14.3.

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This is useful because cap rates vary by the physical and economic characteristics of a property. In general, the higher quality or class of property, the lower the cap rate (resulting in higher values). Survey research can also be supplemented by direct interviews with market participants such as real estate brokers who specialize in the self-storage asset class. In this regard, local participants can provide anecdotal but vital understanding of the local market conditions. For example, in markets with new construction, the cap rates may be impacted.

• **Band of Investment** – This technique is based on returns to debt and equity, sometimes called a built-up model. It accounts for market-based financing with a market-based return to equity. The return to equity for a single asset is typically higher than a comparable self-storage annual return to investor or dividend from a self-storage REIT or stock (does not account for appreciation of the asset). Another way to look at the equity dividend or cash on cash, is the annual return on every dollar of equity. Since most properties are purchased with a combination of debt and equity, the technique has relevance in the market. A Band of Investment Analysis example is summarized in Table 14.4.

In this example, the model solves for a cap rate that is similar to the average of the latest investor survey and in the range of the comparable cap rate data. Mathematical models like the Band of Investment or Mortgage Equity Technique should generally bracket the concluded market cap rate. These tools are useful because they allow for comparison of equity dividend returns and equity yield returns to be compared to alternative investments. Alternatively, a Band of Investment can also solve for returns to land and building.

Table 14.3 – Cap Rates by Investment Class

	Class A	Class B	Class C
Cap Rate Range	4.00% - 4.75%	4.50% - 5.25%	5.00% - 6.50%
Cap Rate Average	4.56%	5.10%	5.50%

Source: Newmark Self-Storage Investor Survey: 3rd Qtr. 2021

Table 14.4 – Band of Investment

Mortgage and Equity Assumptions

Loan-to-Value Ratio	65%
Interest Rate	3.50%
Amortization (Years)	30
Mortgage Constant	5.90%
Equity Ratio	35%
Equity Dividend Rate	5.00%

Weighted Average of Mortgage Equity Requirements

Mortgage Requirement	65%	x	5.39%	=	3.50%
Equity Requirement	35%	x	5.00%	=	1.75%

Indicated Capitalization Rate (Rounded) **5.25%**


Source: Compiled by Newmark Valuation & Advisory

Table 14.5 – Mortgage Equity Analysis

Loan-to-Value Ratio	65%
Interest Rate	3.50%
Amortization Term	30 Years
Mortgage Constant	5.90%
Equity Yield Rate (YE)	13.25%
Projection Period (n)	10 Years
Compound Annual Appreciation / Depreciation	3.5% per Year
Total Appreciation/Depreciation	41.06%

Source: Compiled by Newmark Valuation & Advisory

• **Mortgage Equity Analysis** – This analysis derives from the idea that real property investments are a combination of two components: debt and equity. It differs from the Band of Investment because it accounts for total yield: equity dividend and appreciation over time. It is a useful tool because it solves for a levered equity yield (that includes both cash flow or equity dividend and appreciation over time). Self-storage as an asset class has demonstrated superior returns for many years. For example, comparing total return of self-storage REITs over the last 25 years, self-storage has provided an 16.04 percent return on average and is superior to other core sectors such as office, industrial, retail, or apartments (based on NAREIT data). As a result, institutional investors have been storing capital in

of the cap rate market data presented. There are other good tools and analyses, such as a Debt Service Coverage Ratio, debt yield, and residual techniques that can provide tests of reasonableness to a cap rate conclusion (not presented here). A favorite is the EGIM multiplier that tests the effective gross income (all income after vacancy and collection loss) compared to expense ratios, using the formula of $1 - \text{expense ratio} \div \text{EGIM} = \text{cap rate}$. This multiplier is market derived, and the analysis tests overall assumptions of the net operating income forecast, such as income, vacancy, and expenses, to the concluded cap rate. Altogether, these analytical tools can be effective resources in concluding a reasonable and credible cap rate for a self-storage property. 

In general, market derived data is best. However, the data represents historical views. Survey research represents what investors view now going forward and is the best estimate of current market sentiment. These analyses are further supported by two mathematical techniques to test the reasonableness of the cap rate market data presented.

the sector. The Mortgage Equity Analysis solves for equity yield, a common metric of the comparison of returns among investments for the institutional market. The equity yield rate estimated is lower for a single asset (in this case estimated at 13.25 percent) than publicly traded REIT data because REITs offer greater liquidity. The mortgage equity example, with the same mortgage requirements as the Band of Investment example for consistency, is presented in Tables 14.5 and 14.6.

Loan Ratio x Annual Constant	=	65.00%	x	5.39%	=	3.50%
Equity Ratio x Equity Yield Rate	= +	35.00%	x	13.25%	=	4.64%
Weighted Average						8.14%
Less Credit for Equity Build-up						
Loan Ratio x % Paid off in						
Projected Period x Sinking Fund Factor	= -	65.00%	x	22.57%	x	5.36%
Basic Rate						7.35%
Less Appreciation / Plus Depreciation						
Appreciation / Depreciation x Sinking Fund Factor	= +/-	41.06%	x	5.36%	=	2.20%
Overall Capitalization Rate						5.15%

Source: Compiled by Newmark Valuation & Advisory

Cap Rate Summary

Table 14.7 summarizes the four techniques utilized to derive a cap rate and understand self-storage investment returns.

In general, market derived data is best. However, the data represents historical views. Survey research represents what investors view now going forward and is the best estimate of current market sentiment. These analyses are further supported by two mathematical techniques to test the reasonableness

Source	Indicated OAR
Comparable Sales	4.81% – 5.48%
Newmark Self-Storage Investor Survey: 3Q 2021	4.00% – 6.50%
Band of Investment	5.25%
Mortgage Equity Analysis - Akerson Format	5.15%

Source: Compiled by Newmark Valuation & Advisory