A Capitalization Rate (CAP rate) is metric commonly used in investment real estate to evaluate return on investment. Most people know it by the simple equation of net income divided by purchase price. For example, a retail building generating $100,000 in income that sells for $1,000,000 would sell at a 10% CAP rate. (100,000/1,000,000=.10 or 10%) While this is correct, making investment decisions based upon this understanding of CAP rates alone will likely result in inaccurate value assumptions and unexpected problems with cash flow. A deeper understanding of Cap rates and knowing some of its limitations will help avoid some of the common pitfalls that affect real estate investors.

Net Operating Income

In dividing net operating income (NOI) by purchase price it is essential to calculate NOI correctly. NOI is calculated by taking the rental income less vacancy, property operating expenses, and a reserve for replacement. The most common mistakes we see in calculating NOI are not accounting for vacancy, property management, or a reserve for replacement. These errors artificially inflate the perceived value of the asset. Others who misunderstand NOI for this calculation may be tempted to include depreciation and financing. Including these expenses will reduce or eliminate income and is incorrect. It is also important to note that CAP rates do not take into account after tax returns. The consequences of calculating cap rates wrong will result in understating NOI and incorrectly estimating a real estate assets true value.

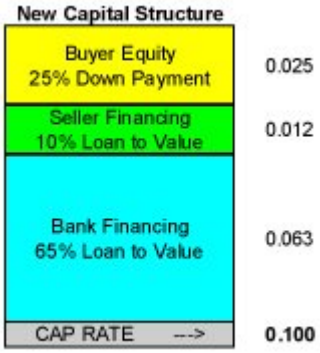
Financing

One of the reasons financing isn't included in the NOI calculation is because in calculating a Cap rate, we are calculating the rate of return needed to satisfy the buyer's capital structure, not the seller's existing capital structure. A CAP rate is the ratio of NOI required to service the new capital structure. The new capital structure is generally not 100% equity, and includes some debt financing. In determining the CAP rate that a buyer should be willing to pay for an investment, we calculate the return required to satisfy the weighted cost of all debt and equity portions of the buyer's capital structure.

Capital Structure

Although there are many types of capital structures, for discussion purposes, we assume the buyer puts 25% cash down and requires a 10% cash-on-cash return, the seller finances 10% of the purchase price for 15 years at 8.5% interest, and the bank loans 65% of the purchase price for 20 years at 7.5% interest.

For the equity portion, the return required (10%) is multiplied by the amount of the down payment (25%) to give a weighted cost of equity of .025 or 2.5%.



To calculate the weighted cost of the financed portion, the loan constant is derived given the interest rate and amortization of the loan. The loan constant is the ratio of income needed to service the annual debt and principal payments of the loan. The loan constant for the seller financed portion (.12) is multiplied by the seller financed Loan to Value (10%) and results in a weighted cost of seller financing of .012 or 1.2%. The same is done for the bank financing where the loan constant of .096 multiplied by the Bank financed Loan to Value (65%) giving a weighted cost of the bank financed portion of .063 or 6.3%. The sum of these three ratios, .10 or 10%, is the buyers required CAP Rate.

What Cap Rate the buyer should be willing to pay changes as the assumptions in the buyer's capital stack change. Interest rate, amortization, Loan to Value, required return on equity, and many other factors will cause the required CAP rate to change. The CAP rate a buyer is willing to pay for an investment should depend on their capital structure requirements where as the market cap rates for an investment are the collective capital structures of all investors.

Limitations
Although very useful and possibly the most widely used metric for valuing commercial real estate in the US, CAP rates don't tell the entire financial story. CAP rates give the return based on the 1st year's net operating income. It omits all variables that may occur in future years such as rent adjustments, operating expense fluctuations, or disposition of the property. Furthermore, CAP rate calculations don't take into account leveraging, benefits of depreciation, or after tax returns.

Common Pitfalls
Many times, the income quoted is pro-forma income and not actual. This often occurs when a building is not fully leased, or a full years operating history is not available. Use additional scrutiny when dealing with pro-forma numbers.

On occasion, lease rates are substantially above the market rate inflating NOI thus inflating the value of the property from a CAP rate valuation. This may occur in a sale lease back where the seller seeks to take capital from building appreciation or may occur in a soft market where rents have decreased. At the conclusion of the lease or in the event of tenant default, the rental rate will default to the market rate. When evaluating a CAP rate, check to see how the lease rate compares to the market rate and adjust accordingly.

When considering an investment purchase or sale of an asset, the CAP rate calculation is a valuable tool. An increased understanding of its use, combined with other financial metrics, will help achieve an accurate valuation from an income perspective.

Jon Walter is a commercial real estate investment specialist and partner in NAI Utah Southern Region and ERA Brokers Consolidated.