

Extracting a Cap Rate from a Sale

A cap rate is not just a ratio — it is a forecast in disguise. It only transfers if the future transfers with it.

THE SHORT VERSION

A property sold for \$2,000,000. It was earning \$160,000 a year. Divide one by the other and you get 8%. That is an extracted capitalization rate — not a rate anybody argued for, but the rate a real buyer actually paid.

It is the best kind of rate there is, because nobody's opinion is in it. It is also the easiest to misuse, because a cap rate is not just a ratio — it is a forecast in disguise.

That sentence is the whole paper. Everything below explains it.

DOING IT RIGHT

Four steps, and each one is a place to go wrong.

- 1. Verify the sale.** Real price, arm's length, no unusual financing, no related parties, nothing thrown in on the side. A price that was not a market price will not give you a market rate.
- 2. Find the income the buyer was looking at.** Not the seller's tax return. Not last year's actuals. What a buyer, on the day he signed, reasonably expected the property to earn — and not just in year one.
- 3. Work out what the buyer decided.** This is the step that is usually skipped, and it is not a matter of building an income statement to your own convention. It is an investigation into somebody else's reasoning — and the section below is about nothing else.
- 4. Divide.** $\text{Income} \div \text{price} = \text{rate}$.

THE RATE WAS A DECISION, NOT A MEASUREMENT

A rate is not a property characteristic. Nobody surveyed the building and came back with 8%. A person sat down, formed a view about what the property would earn and what it would be worth later, and paid a price that reflected that view. The rate is the arithmetic left behind afterwards.

So the work is not to build his income the way you would have built it. The work is forensic: to find out what he actually concluded.

THE RATE CAME OUT OF HIS HEAD, NOT OUT OF THE BUILDING

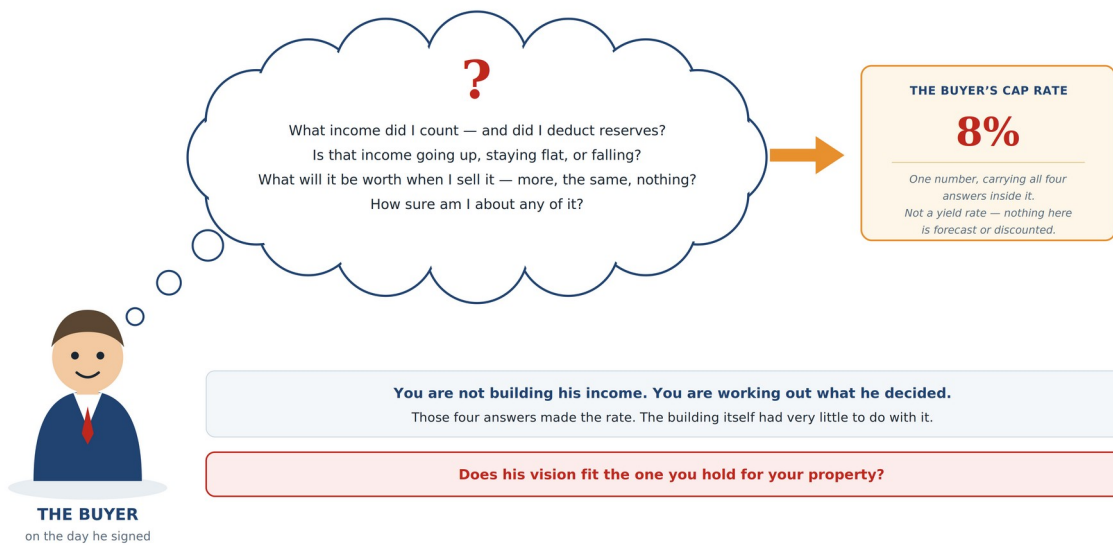


Exhibit 1 — Four questions the buyer answered before he signed. His answers made the rate.

What income did he count, and did he deduct reserves? A buyer who took a reserve out before pricing the building was working from a smaller number, and the rate he produced is smaller with it.

What did he think the income would do? Not the first year — the pattern. The lease may have told him: fixed steps, a flat term, an expiry halfway through his hold. Or he may have formed his own view as an investor, and paid on that.

What did he think it would be worth at the end? More than he paid, the same, or less. In some cases nothing at all — a buyer pricing a building he expects to be functionally worthless in twenty years is buying land with an income stream attached, and his rate says so.

How sure was he? A national tenant on a fifteen-year lease and a month-to-month local tenant can produce the same first-year income and nothing like the same rate.

Those four answers made the rate. Then one question decides whether you may use it: does his vision fit the one you hold for your property?

A CAUTION BEFORE GOING FURTHER

Those four questions are about future income and future value, and that is the vocabulary of yield capitalization. It is easy to read this section, conclude it belongs to discounted cash flow, and set it aside on the grounds that you are extracting a cap rate and none of it applies.

It applies, and this is a cap rate exercise from beginning to end. Nothing here asks you to forecast anything, discount anything, or build a cash flow. No yield rate is developed and none is needed. The rate you are extracting is a cap rate — one year's income divided by one price — and it stays one.

The difference is whose expectations are involved. In yield capitalization you make the forecast. Here the buyer already made it, months ago, and then compressed the whole of it into a single number by paying a price. That number is the cap rate. His expectations are inside it whether or not anybody looks.

Looking is how you find out whether the number belongs to your property. A cap rate carries a forecast the way a price carries a negotiation — invisibly, and completely.

WHAT THAT LOOKS LIKE IN PRACTICE

Everybody manages step four. Step three is where the work is, and the pattern of income across the years a buyer intended to hold is the part most often missed.

Consider three buildings. Same age, same road, same construction, and first-year incomes within a few thousand dollars of each other. Two of them sold.

PHYSICALLY ALIKE. SIMILAR INCOME. DIFFERENT RATES.



Two rates, 87 basis points apart, from two buildings you would call comparable from the road.

Exhibit 2 — Two sales that any appraiser would call comparable, and two rates 87 basis points apart.

From the road there is nothing to choose between them. The difference is inside the package, and you cannot see it until you open it.

THE SAME THREE PROPERTIES — WHAT THE BUYER WAS ACTUALLY BUYING



Sale #1 looks like the subject. Sale #2 behaves like the subject.

None of this is visible from the road, or in the sale price, or in the first year's income.

Exhibit 3 — The same three properties, and what each buyer was actually buying.

Sale #1 looks like the subject. Sale #2 behaves like the subject. The buyer of Sale #1 was pricing a flat income for ten years and wanted his return along the way, so his rate came in high. The buyer of Sale #2 was pricing a rising income and accepted less today because more was coming later.

The subject's income is expected to rise. It is Sale #2's rate that belongs to it, and Sale #1's rate — from the building that resembles it most closely — that does not.

WHY THAT IS SO

When a buyer settled on a rate, he was not pricing this year's rent. He was pricing everything he thought was coming, and all of it got compressed into a single number. The cap rate is the residue of his expectations about the future.

Which produces the result that surprises people. A buyer who expects income to grow accepts a lower rate, because part of his return is coming later. A buyer who expects income to shrink demands a higher one, because he wants paying up front for what he is going to lose. A low cap rate is usually a sign of optimism, not of a bargain — and a high one is often a sign of fear.

The same logic applies to the end of the story. Part of what a buyer pays for is what he thinks the property will be worth when he gets out. If he believed it would appreciate, some of his return was coming from the sale, and his rate came in lower for that reason alone.

THE RULE THAT FALLS OUT OF IT

An extracted rate transfers to your property only if the future the buyer was buying looks like the future your property is facing.

Two warehouses can be the same age, the same size, on the same road, built by the same contractor. The one that sold had a national tenant, fifteen years left, and 3% bumps every year. Your subject has a local tenant with eighteen months left and no renewal option. Same building, completely different future. Applying the first rate to the second does not produce a slightly optimistic answer — it produces the wrong answer, invisibly, because the arithmetic is impeccable and the comparable is similar by every measure anyone thought to check.

The question is not “is it the same kind of building?” It is: would a buyer of my property expect the same future that the buyer of that one expected?

PUBLISHED AVERAGE RATES ARE NOT YOUR RATE

Everything above is the reason to be careful with a sentence like this one, which appears in every quarterly survey and half the appraisal reports you will read.

“Class A cap rates in this submarket averaged 7.2% in the second quarter.”

Two questions the survey almost never answers. Which of those rates were built on income with reserves deducted, and which were not? And were the surveyed properties' incomes expected to rise, hold, or fall?

Take the reserves first, because it is the smaller of the two and still moves the number.

ONE SALE. ONE PRICE. TWO PUBLISHED RATES.

The building sold for \$8,000,000 and earned \$600,000 before a \$45,000 reserve. Nothing else differs.

Reserves NOT deducted	
Income used	\$600,000
Price	\$8,000,000
Cap rate	7.50%

Reserves deducted	
Income used	\$555,000
Price	\$8,000,000
Cap rate	6.94%

56 basis points, from bookkeeping alone — no difference in the building, the price, or the market.

A published survey rarely says which convention its contributors used.

Exhibit 4 — One sale, one price, two published rates. The difference is a bookkeeping convention.

Now put both together. Two real sales, both correctly reported, whose rates are averaged into a single published figure.

"Class A cap rates in this submarket averaged 7.2% in the second quarter."

Two sales. Both real. Both correctly reported. Here is what is inside them.

PROPERTY A	
Net operating income	\$600,000
Reserves for replacement	not deducted
Income expected to	decline
Sale price	\$7,058,824
REPORTED CAP RATE 8.5%	
<i>A high rate. The buyer wanted paying up front.</i>	

PROPERTY B	
Net operating income	\$555,000
Reserves for replacement	deducted — \$45,000
Income expected to	grow
Sale price	\$9,406,780
REPORTED CAP RATE 5.9%	
<i>A low rate. The buyer was paying for growth.</i>	

The published average of these two sales is 7.2%.

It is the rate of neither property, built on neither income, and reflecting neither future.

APPLIED TO A SUBJECT EARNING \$600,000

at A's 8.5%
\$7,058,824

at the average 7.2%
\$8,333,333

at B's 5.9%
\$10,169,492

A spread of \$3,110,668 — 44 percent — and every one of the three is arithmetically correct.

Exhibit 5 — What an average of 7.2% can be made of, and what happens when it is applied.

The average is the rate of neither property, built on neither income, and reflecting neither future. Applied to a subject earning \$600,000, the two component rates indicate \$7,058,824 and \$10,169,492 — a spread of \$3,110,668, or 44 percent. Every one of those figures is arithmetically correct.

None of this makes published surveys useless. They are a reasonable check on whether your own extracted rates are in the right country. What they cannot do is substitute for a rate you have extracted yourself, from a sale you have verified, on income you have built the same way you built the subject's.

THE QUESTION TO ASK

For every rate you are thinking of borrowing, whether from a sale or from a survey: what income was it built on, and what future was it pricing?

If you cannot answer both, you do not know what the rate means. And when you cannot find sales whose futures match your subject's, that is precisely when you build a rate instead of borrowing one.

General information, prepared for anyone who wants a plain-English handle on the subject — clients, students, and appraisers alike. It is a starting point, not a substitute for reading the source material and thinking it through for the assignment in front of you. Every assignment is different. Reach your own conclusions and own the work.