7

FINANCING AND VALUATION

Chapter Summary

In the previous chapter, we reviewed the cash flow statement, how it works, and what goes into it. Now, we will see what lenders do once they receive a loan application containing, among other things, the owner's estimate of Net Operating Income (NOI).

Chapter Contents

LOAN UNDERWRITING: NET OPERATING INCOME (NOI)

Term...

Net Operating Income is cash flow after operating expenses, but before debt service and distribution to the owner. Also see page 6-5.

See...

Chapter 12, Estimating Future Capital Needs.

The first step a lender takes in *underwriting* an apartment property is to make an analysis of the Net Operating Income (NOI). In making this analysis, the lender considers a wide range of relevant data:

- Prior year cash flow statements of the property.
- Current year cash flow vs. budget.
- The unit by unit, resident by resident *rent roll* of the property, showing who occupies each apartment, at what rent, when each lease expires, and whether the resident's rent payments are current.
- The results of the lender's property inspection.
- For older properties, a *capital needs assessment*
- The owner's estimate of future cash flow.
- Data from comparable properties.
- Discussions with the owner.

The purpose of this analysis is for the lender to make its own estimate of the NOI that the property is likely to generate during the period that the new loan will be outstanding.

Let's assume that the lender has underwritten the NOI at $269 per unit per month. Now, the lender is ready to determine the maximum loan amount that the property can support, based on the lender's estimate of NOI.

Figure 7.1

Maximum loan by debt service coverage ratio

Maximum Loan by Debt Service Coverage Ratio

		$	Comment	
Net Operating Income		$269	Lender's Est.	
Debt Service Coverage Ratio	÷	120%	Lender's Req.	*$269 ÷ 1.20 =$224*
NOI Available for Debt Service	=	$224	Monthly	
		$2,688	Annual	
Debt Service Constant*	÷	9.06%		*$2,688 ÷ .0906 =$29,669*
Maximum Loan Amount	=	$29,700	per unit (rounded)	
Market Interest Rate		7.75%		
Market Loan Term		25	years	
Debt Service Constant*		9.06%	Annually for P&I	

*9.06% = 7.75% for interest + 1.31% for 1st year principal

Loan Underwriting: Maximum Loan Amount by Debt Service Coverage Ratio

Once the lender has determined the NOI that she believes is accurate, she makes two calculations of the maximum prudent loan amount. The first calculation is based on a debt service coverage ratio (DSCR). The second calculation is based on a Loan to Value Ratio (LTV, see figure 7.3).

The concept behind the DSCR is that the mortgage payment needs to be *less* than the NOI, to provide a margin of safety in case the local market weakens or in case there are unexpected expenses.

Remember, NOI is Effective Gross Income (rent, rent loss and other income) minus operating and capital expenditures. Higher income and/or lower expenses will increase NOI, which in turn will increase property value, and the maximum amount a lender would be willing to lend.

The most common DSCR method compares the NOI to the mortgage payment (principal, interest, and credit enhancement cost), and expresses the margin of safety as a ratio or percentage. For example, a 1.20:1 DSCR means that each dollar of debt service is supported by $1.20 of estimated NOI; a 120% DSCR means the same thing.

Here's how a DSCR calculation works. Starting with the estimated NOI and the lender's desired DSCR, the lender then calculates the maximum debt service payment that the NOI will support. In Figure 7.1, the calculation is:

- $269 (NOI)
- divided by 1.20 (DSCR)
- equals $224 (maximum debt service payment)

So, this property can afford to pay *up to* $224 per unit per month toward debt service.

Next, the lender determines the loan amount that the maximum debt service payment will support. This will depend on the financial characteristics of the mortgage loan: in particular, its interest rate, its term, and whether the loan has any credit enhancement costs. Together, these characteristics determine how much the debt service payments will be, per dollar of loan amount. *This relationship between debt service and loan amount is called a debt service constant.*

THE DEBT SERVICE CONSTANT

We'll take a few moments to review the debt service constant. Note the words debt service, encompassing the principal payment, the interest payment and any credit enhancement costs such as FHA mortgage insurance. In Figure 7.1, the debt service constant is 9.06%:

- 7.75% for interest payments,
- 1.31% for first year principal payments, and
- no credit enhancement payments.

Term...

Debt Service Constant *is the relationship between the debt service and the loan amount.*

At this 9.06% debt service constant, the monthly debt service on a $1 million loan would be $7,550. The math is:

- $1,000,000 (loan amount) times 9.06% (debt service constant) equals $90,600 per year.
- $90,600 divided by 12 equals $7,550 per month.

Principal / Interest Breakdown

Here's the math for calculating the interest and principal breakdown for the first month's payment:

- $1,000,000 times 7.75% (interest rate) equals $77,500 (annual interest).
- $77,500 divided by 12 equals $6,458.33 (the first month's interest).
- $7,550 (monthly payment) minus $6,458.33 (first month's interest) equals $1,091.67 (first month's principal).

The Debt Service Constant Works In Both Directions

We can also work backwards from the mortgage payment, to arrive at the maximum loan amount. Using the amounts from Figure 7.1:

- $224 (mortgage payment per unit per month) times 12 equals $2,688 (annual).

$2,688
÷ .0906
= $29,669

- $2,688 divided by 9.06% (debt service constant) equals about $29,700 (maximum mortgage amount).

Working forwards, using the same data:

$29,700
x .0906
= $2,691

- $29,700 (mortgage amount per unit) times 9.06% (debt service constant) equals $2,691 (annual debt service)
- $2,691 divided by 12 equals about $224 (monthly debt service).

Debt Service Constant and Interest Rate

What is the relationship between the debt service constant and the interest rate? The debt service constant is almost always higher than the interest rate.

Is it possible for the debt service constant to be less than the interest rate? Yes, if you had an unusual loan where some of the interest was paid monthly and some was *accrued* to be paid at some later date.

Is it possible for the debt service constant to be exactly equal to the interest rate? Yes, for *interest only* mortgage loans, where there are no monthly principal payments.

Principal Paydown Rate

Just as with a standard home mortgage, in a standard apartment loan, the loan payments stay the same each month, and the unpaid balance of the loan decreases each month as the principal is repaid. Just as with a standard home mortgage, the portion of the loan payment going to interest declines each month, and the portion going to principal increases. Here's the math for the $1 million / 7.75% / 25 year loan we have been discussing:

- First month's principal payment is $1,091.67
- $1,091.67 times 12 equals $13,100 (annualized principal payment).

- $13,100 divided by $1 million equals 1.31% initial principal paydown rate.

The principal paydown rate will increase each month.

The principal paydown rate will increase each month, for the two reasons just mentioned. First, the *amount* being paid toward principal increases each month because the amount being paid toward interest is declining. Second, the *unpaid principal balance* declines each month.

How the Debt Service Constant Changes Over Time

Let's continue with our $1 million loan at 7.75% / 25 years. What will the principal versus interest breakdown be a few years later, when the mortgage balance has been reduced to $900,000? We still pay $7,550 each month for principal and interest. The interest portion is:

- $900,000 times 7.75% equals $69,750 per year.
- $69,750 divided by 12 equals $5,812.50 for one month's interest.

Now for principal:

- $7,550 minus $5,812.50 equals $1,737.50 for principal.

Now for the new principal paydown rate:

- At an annual rate: $1,737.50 times 12 equals $20,850.
- $20,850 divided by $900,000 equals 2.32% principal paydown rate.

Does this mean that the debt service constant is higher now? Yes. Here's the math:

- $7,550 monthly payment times 12 equals $90,600 annual debt service.

the debt service constant increases over time...

- $90,600 divided by $900,000 equals 10.07% (current debt service constant).
- 10.07% equals 7.75% (interest) plus 2.32% (principal).

So, the initial debt service constant was 9.06%, but now the debt service constant is 10.07%. This is because we no longer have a 25 year loan (shorter loan term equals higher payments toward principal equals higher debt service constant).

Figure 7.2

Rule of Thumb: Reducing the loan term raises the Debt Service Constant

Debt Service Constant vs. Loan Term

At a 7.75% interest rate, the Debt Service Constant is:

Loan Term	Debt Service Constant
30 year	8.60%
25 year	9.06%
20 year	9.85%
15 year	11.30%
10 year	14.40%
5 year	24.15%

A Short Detour Into Owner-Land

The fact that the debt service constant increases over time doesn't matter much for purposes of understanding market conversions, but it becomes quite important when owners are considering whether to refinance a property. Here's the reason: after a period of time, the current debt service constant becomes quite high (remember,

it rises every month as the loan balance decreases). In other words, *the mortgage payments are very high in relation to the unpaid principal balance* — expensive financing.

owners like to replace expensive financing with less expensive financing…

At some point, the debt service constant is high enough that the owner can refinance the property over a longer period of time and either (a) increase the loan amount to generate cash for fixup, a boat, or a vacation; or (b) leave the loan amount the same and decrease the monthly payments (thereby increasing cash flow to pay for fixup, a boat, or a vacation).

For example, a new loan at 7.75% / 25 years would have a 9.06% debt service constant. If the current debt service constant is a lot higher than that, it might make sense to refinance at 7.75% / 25 years. It might also make sense to leave the existing loan in place (after all, it's now being repaid at an ever-increasing pace, and some owners would rather build up equity in the property).

You could take out the largest possible loan, and use the money to buy another property, and then after a few years you could do it all again and buy another property, and then…

Or, you could take out the largest possible loan on this property, and use the money to buy another property, and then after a few years you could do it all again and buy another property, and then .... Imagine, just a few chapters ago you were a dedicated affordable housing advocate, and you're starting to become a capitalist. Time to get back to loan underwriting.

LOAN UNDERWRITING: MAXIMUM LOAN AMOUNT BY LOAN TO VALUE RATIO

Figure 7.3 illustrates the second maximum loan amount calculation that the lender performs: the loan to value (LTV) test. The concept underlying LTV is that the loan amount must be *less* than the value of the property, to provide a margin of safety in case something happens that decreases the value of the property. An 80% LTV means that each dollar of property value translates into 80 cents of maximum loan amount.

Figure 7.3

Maximum loan by loan to value ratio (LTV)

Maximum Loan by Loan to Value Ratio

		$	Comment
Net Operating Income		$269	PUPM
Annualized	=	$3,228	PUPA
Capitalization Rate	÷	9.5%	
Estimated Property Value	=	$33,979	per unit
Maximum Loan to Value Ratio	×	80%	Lender Requirement
Maximum Loan Amount	=	$27,183	per unit

$3,228
÷.095
= $33,979
× .80
= $27,183

See…

Capitalization Rate, pages 7-18, 10-22, 7-21

The lender may commission an appraisal of the property in order to determine property value. More commonly, for underwriting purposes the lender will make its own estimate of property value by applying a *capitalization rate* to the lender's estimate of Net Operating Income. The capitalization rate is an estimate of the investment return (i.e., interest rate) that an all-cash purchaser would require in order to purchase this property. In Figure 7.3, the capitalization rate is 9.5%, indicating that each $1 million of pur-

chase price is expected to generate $95,000 of annual NOI (a 9.5% first year expected return on the $1 million purchase price).

Here is an exercise to give you some experience working with capitalization rates.

In Figure 7.3, we used a 9.5% capitalization rate. Now, let's say we have an appraiser who is more aggressive and is willing to value the property on the basis of a 9.0% capitalization rate. How does the maximum loan by LTV change?

Term...

*The **capitalization rate** is an estimate of the investment return that a purchaser would require.*

Exercise 7.3a

How does the maximum loan by LTV change with a 9.0% capitalization rate?

Maximum Loan by Loan to Value Ratio Exercise 7.3a		$	Comment
Net Operating Income		$269	Same
Annualized	=	$3,228	Same
Capitalization Rate	÷	9.0%	Changed
Estimated Property Value	=	$_____	per unit
Maximum Loan to Value Ratio	×	80%	Lender Requirement
Maximum Loan Amount	=	$_____	per unit
Original Maximum Loan	−	$27,183	per unit
$ Change in Maximum Loan Amount	=	$_____	per unit
% Change in Maximum Loan Amount		%_____	

See...

Appendix C for the completed exercises.

See...

For more discussion of capitalization rates and the "income method" for determining property value, see the discussion on page 7-17 entitled "Value: The Income Method."

I calculate that this small change in capitalization rate increases the maximum loan by LTV by 5.6%. The rule of thumb is *lower capitalization rate equals higher value*.

lower capitalization rate equals higher value.

Loan Underwriting: Supportable Debt

The lender has now made two calculations of maximum loan amount. The supportable debt amount that the lender will be willing to lend is typically the *lower* of the maximum loan by DSCR, and the maximum loan by LTV. See Figure 7.4. In this example, the LTV calculation is the lower of the two calculations, and the loan amount is said to be *LTV constrained*. If the DSCR calculation had produced the lower of the two amounts, the loan amount would be said to be *DSCR constrained*.

Figure 7.4

The supportable debt amount that the lender will lend is typically the lower of the maximum loan by DSCR, and the maximum loan by LTV. In this example, LTV is lower, so the loan is referred to as LTV constrained.

Supportable Debt			
Supportable Debt is the Lower of:			
Maximum Loan by DSCR	=	$29,656	Figure 7.1
Maximum Loan by LTV	=	$27,183	Figure 7.3
Supportable Debt	=	$27,183	LTV constrained
Debt Service Constant	×	9.06%	7/75% / 25 years
Debt Service	=	$2,463	per unit per year
	=	$205	per unit per mo.

If you have ever financed a home purchase, your lender made the same sort of calculation. The lender made sure you could afford to make the payments (DSCR) *and* that the loan was less than the property was worth (LTV). The lender wouldn't let you borrow more than your income would support (no matter what the house was worth), and he wouldn't let you borrow more than the property was worth (no matter how much you earned).

Periodically after the loan has been made, a lender's asset management staff may recalculate the DSCR and LTV based on the property's actual performance. If the DSCR is going *down*, or if the LTV is going *up*, the lender will be worried, because the property is doing worse than estimated, and there is increased risk that the owner may not be able (DSCR less than 1.00) or willing (LTV greater than 100%) to make the mortgage payments.

LOAN UNDERWRITING: SECURITY AND CREDIT ENHANCEMENT

When loan underwriters use the term *security*, they are talking about the sources of value that the lender can rely on for repayment of the loan.

The simplest and most common type of security is the *non-recourse* loan. Non-recourse means that the loan is secured only by the apartment property itself. If the property fails to make a mortgage payment, the lender can take over the property via *foreclosure* and sell the property, but that is the lender's only recourse for payment of the loan.

Term...

To a lender, ***security*** *means the sources of value that can be relied on for repayment of the loan.*

Other mortgage loans are secured by the property but have additional *credit enhancement*. Credit enhancement makes the loan safer (and thus allows the lender to charge a lower interest rate, lend a higher amount, or both). Credit enhancement might take the form of FHA mortgage insurance (under which FHA insures the lender against losses), a guarantee (for loans guaranteed by a large bank or insurance company), or a *pledge* of additional assets (such as cash, stocks, bonds, or a *letter of credit*). In each case, the credit enhancement will cover some or all of the deficiency in case the property fails to pay the mortgage payments and the value of the property is insufficient to pay off the loan.

Sometimes a lender has *full recourse* or *partial recourse* against the borrower. If the property fails to maintain the mortgage payments, the lender forecloses, and the proceeds from the foreclosure sale are less than the amount owed on

the loan, the lender has the right to collect all (full recourse) or some (partial recourse) of the deficiency from the borrower.

Recourse, whether full or partial, is pretty rare in the mainstream multifamily credit markets…

Recourse, whether full or partial, is pretty rare in the mainstream multifamily credit markets, for several reasons. One is that the amounts borrowed are so large in relation to the borrower's other assets that borrowers can't afford to take the risk. Another is that most financial problems occur in adverse market cycles, when *all* the properties in the market are in trouble, and this is exactly when the borrowers (whose other assets are probably other apartment properties) won't have any net worth anyway. However, borrower quality is still very important, so we frequently see loan documents that include a *key individual* provision for corporate borrowers: the lender has the option of requiring the loan to be paid in full if the one or two or three really key people leave the company.

EQUITY YIELD

Figure 7.5 shows a calculation of *equity yield.* Equity is the difference between the value of the property, and the amount of the mortgage loan(s). If the lender has done a good job of underwriting and if the property is performing properly, cash flow will be in line with what was expected at the time of underwriting, and equity will be at least equal to the initial equity.

Term...

Equity *is the difference between the value of the property and the amount of the mortgage loan(s).*

If cash flow is below the amount expected at the time of underwriting, that is something for both the owner and the lender to be worried about. It is possible (as we saw in the previous chapter) that the owner will have difficulty making the mortgage payments.

It is also possible that the property has lost value, and that the owner's equity has diminished (or even, in extreme cases, wiped out). I say *possible* because, in order to determine whether the property has actually lost value, it would be necessary to perform another valuation similar to what the lender did at the time the loan was made.

Figure 7.5

Equity Yield

			Comment
Net Operating Income	=	$269	Monthly
Debt Service	−	$205	At 80% LTV
Cash Flow to Owner	=	$64	Monthly
	=	$768	Annually
Property Value		$33,979	per unit
Supportable Debt	−	$27,183	per unit
Initial Equity	=	$6,796	per unit
Initial Equity Yield	=	11.3%	

Note...

For the calculation of property value, see Figure 7.3. For the calculation of supportable debt (LTV constrained) see Figure 7.4.

$768
÷$6,796
= .113

Figure 7.5 is concerned with equity at the time the new loan is made. Equity yield compares the net cash flow expected from the property (the underwriting NOI minus the debt service) to the equity (property value minus loan amount). An 11.3% equity yield means that each thousand dollars of equity is expected to earn $113 of cash flow next year. In Figure 7.5:

- $768 yield divided by $6,796 equity equals an 11.3% equity yield.

Note that this is the equity yield that is *projected* to be earned *the first year* after the purchase. The first year may turn out differently than projected, and subsequent years will produce different results.

Like DSCR and LTV, equity and equity yield will fluctuate over time. If the value of the property rises, equity increases. If the owner takes out additional debt, equity declines (hence the term equity take-out loan). If the cash flow improves, the equity yield increases (more yield, same equity).

VALUE: THE INCOME METHOD

Figure 7.6 illustrates the *income method* of valuing income-producing real estate. This is the method that appraisers rely on the most heavily, when valuing apartments. Using this approach, the property's estimated NOI is divided by a *capitalization rate.* Using the amounts in Figure 7.6:

- $3,150 (NOI per unit per year) divided by .095 (9.5% capitalization rate) equals $33,158 (indicated market value per unit).

Figure 7.6

Income Method of Valuation

Net Operating Income		$3,150	PUPA
Capitalization Rate	÷	9.5%	
Indicated Market Value	=	$33,158	per unit

Two Routes to Higher Market Value:

1. Higher NOI
2. Lower Capitalization Rate

$3,150
÷.095
= .33,158

PUPA = Per Unit Per Annum (Year).

The capitalization rate expresses the relationship between purchase price and expected NOI.

The capitalization rate expresses the relationship between purchase price and expected NOI. The theory behind *cap rates* is that intelligent purchasers of income-producing real estate are really purchasing a stream of expected NOI (*"I don't care what the property's construction cost was, the only thing I care about is how much the property will earn"*). Accordingly, there should be a direct relationship between the NOI a purchaser expects the property to generate, and the price the purchaser is willing to pay. A capitalization rate of 9.5% means that each thousand dollars of value is supported by $95 of expected annual NOI ($1000 times 9.5% return equals $95). In Figure 7.6, the $33,158 per unit of market value is supported by $3,150 of annual NOI per unit ($33,158 times 9.5% equals $3,150).

Capitalization rates are similar to a concept that is familiar to anyone who invests in the stock market: dividend yield.

Capitalization rates are similar to a concept that is familiar to anyone who invests in the stock market: *dividend yield*. This is the stock's dividend rate (i.e., NOI) divided by its price (i.e., market value).

See...

Capitalization Rates, pages 7-11, 7-21, 10-22

Before we go any further, here is an exercise to let you work with capitalization rates. In this exercise, we keep NOI the same but *reduce* the capitalization rate. Before you work out the exercise, answer this question: do you expect the market value to go *up* or *down*?

Exercise 7.6a

keep NOI the same but reduce the capitalization rate. Before you work out the exercise, answer this question: do you expect the market value to go up or down?

See...

Appendix C for completed exercises.

Income Method of Valuation Exercise 7.6a

Net Operating Income	=	$3,150	PUPA
Capitalization Rate	÷	9.0%	
Indicated Market Value	=	$_____	per unit
Market Value at 9.5%	—	$33,158	per unit
$ Change in Value	=	$_____	per unit
% Change in Value	=	_____%	

I calculate a new market value of $35,000 per unit, a value increase of 5.55%. *Lower capitalization rate equals higher market value*.

Lower capitalization rate equals higher market value.

To understand this relationship between capitalization rates and value, think in terms of an all-cash purchase. In exercise 7.6a, the first year expected NOI is $3,150, and the purchaser expects to earn 9.0% (capitalization rate). As a result, the purchaser would be willing to pay $35,000:

NOI divided by Capitalization Rate equals Value

- $3,150 (NOI) divided by 0.09 (capitalization rate) equals $35,000 (value).

If the purchaser is willing to accept a lower return (lower capitalization rate), the purchaser will agree to pay more for the property (higher market value).

Like debt service constants, capitalization rates work in both directions. We just saw capitalization rates used the traditional way (starting with NOI, to arrive at market value).

Now, look at it in reverse. The purchaser is willing to pay $35,000 for the property and wants a 9.0% return on investment. Thus, the purchaser expects the property to generate $3,150 of NOI in the first year:

- $35,000 (value) times 9.0% (capitalization rate) equals $3,150 (expected NOI).

Now, suppose that we are appraisers, looking at a sale that took place last month to see what the capitalization rate was. The purchaser paid $35,000 per unit, and the purchaser told us that they expected $3,150 per unit of NOI in the first year after purchase. That's a 9.0% capitalization rate:

- $3,150 (NOI) divided by $35,000 (value) equals 9.0% (capitalization rate).

Now for another exercise, this time using a higher NOI.

Exercise 7.6b

Calculate the change in value with a higher NOI. Do you expect value to go up or down?

Income Method of Valuation
Exercise 7.6b

Net Operating Income	=	$3,500	PUPA
Capitalization Rate	÷	9.5%	
Indicated Market Value	=	$_____	per unit
Market Value at $3,150	–	$33,158	per unit
$ Change in Value	=	$_____	per unit
% Change in Value	=	_____%	

My calculator shows a new market value of $36,842 per unit, an 11.1% increase. *If you can make the property produce more NOI on an ongoing basis, you can raise the property's market value.* Higher NOI could come from increased income, from reduced expenses, or both.

Some Factors Affecting Capitalization Rates for Apartments

See...

Capitalization Rates, pages 7-11, 7-18, 10-22

Other things being equal, if a property's future NOI stream is particularly reliable (or is particularly likely to grow at an above-average rate), the more a purchaser should be willing to pay — and this will be expressed in a *lower* capitalization rate. The investor has lower risk and therefore will accept a lower return (*"This is a very reliable investment, without much risk of failure, so I am willing to pay more."*)

Similarly, if a property's future NOI stream appears particularly unreliable (or is likely to grow at a below-average rate, or is likely to decline), purchasers will not be willing to pay as much, and this will be expressed in a *higher* capitalization rate. Higher risk translates into a lower price and thus a higher expected return *("I might lose money on this investment, so I will pay less. That way, if the investment succeeds, it will really pay off. The higher return if I succeed makes it worth the risk that I'll fail").*

So, the capitalization rate is strongly affected by the likely <u>future</u> investment results, not just the first year. Other things being equal, if the property's long term outlook is particularly favorable, a purchaser will pay more (i.e., lower capitalization rate). If the property's long term outlook is uncertain or negative, a purchaser will pay less (i.e., a higher capitalization rate).

As a result, capitalization rates are strongly affected by neighborhood, and by the eco-

The capitalization rate is strongly affected by the likely future investment results, not just the first year. As a result, capitalization rates are strongly affected by the economic prospects for the local market.

nomic prospects for the local market. Other things being equal, properties in neighborhoods with rapidly growing real estate values, in communities that are also growing at above-average rates, will command lower (better) capitalization rates. *The same property is worth a lot more if it is in an economically strong neighborhood.* Some regulated housing is located in neighborhoods that were nothing special when the property was built, but that have improved greatly since then. Market conversions of these regulated housing properties can generate very significant value.

A property is worth a lot more if it is in an economically strong neighborhood

Conversely, properties in neighborhoods with static or declining real estate values, in communities with zero or negative population growth rates, will command higher (worse) capitalization rates. *The same property is worth a lot less if it is in an economically weak neighborhood*. Some regulated housing is well built and well maintained but located in distressed neighborhoods that are failing economically. As we will see later, market conversions of this housing may actually fail (that is, market rents may be too low to pay operating costs).

A property is worth a lot less if it is in an economically weak neighborhood

See...

Chapter 8, Estimating Market Rents

Another factor that affects capitalization rates is the age of the property. Other things being equal, newer properties command lower (better) capitalization rates and thus higher values.

Selecting a proper capitalization rate may be relatively simple, for a new market rate property in the suburbs. For older properties in average or below-average neighborhoods, the task will be more difficult.

Capitalization Rates For Market Conversions of Regulated Housing

Suppose that we are valuing a regulated housing property that will be undergoing a market conversion. It is an older property (unfavorable), in a neighborhood that is no better than average (unfavorable), and its NOI is difficult to estimate (unfavorable). All of these factors combine to produce a fairly high risk investment (and, no doubt, a high — bad — capitalization rate). *Accordingly, we can expect low sales prices, and low loan amounts, if we try to sell or refinance regulated housing before we complete the market conversion*.

If, however, we take the property through the market conversion, achieve stabilized occupancy, and develop a one to two year track record of successful and consistent financial performance thereafter, now we have a much lower-risk property (and correspondingly lower — better — capitalization rate). *If we wait until after the conversion to sell or refinance, we will get much higher sales prices and loan amounts*.

If we wait until after the conversion to sell or refinance, we will get much higher sales prices and loan amounts.

I worry about the appraisal profession's ability to select accurate capitalization rates for properties in marginal neighborhoods. Most of appraisers' work is done in economically strong neighborhoods, because these are the neighborhoods where the new development and major renovation work are taking place. How will appraisers react to properties in weaker neighborhoods where much of our affordable housing is located? Here are just a few potential concerns:

- Most appraisals are done for properties that will *increase* in value each year. Will appraisers react appropriately to properties that may experience value

decreases? The capitalization rates should be significantly higher (worse), but will appraisers select high (accurate) capitalization rates in practice?

- If we finance a property at a high LTV (i.e., borrowing most of the purchase price), and its value declines, the owner's equity may have been wiped out, removing the owner's incentive to take care of the property. Accordingly, properties in marginal neighborhoods should be financed conservatively, not aggressively. Similarly, these properties should be priced conservatively, because only the most inexperienced and foolhardy purchasers will pay aggressive prices for risky real estate (and I don't see any sense in encouraging these kinds of owners to buy our most challenging affordable housing).

See...

Page 7-11 for a discussion of loan to value.

Properties in marginal neighborhoods should be financed conservatively, not aggressively.

- In weak neighborhoods, additional investment in the property may *not* result in additional value. Potential residents are likely to be income-constrained and may be unable to pay additional rent, regardless of how much better the property is. Accordingly, appraisers may recommend property "improvements" that will turn out to be bad investments.
- If the neighborhood is sufficiently weak, market conversions are very likely to result in immediate property failure. This will occur whenever market rents are too low even to support operating costs.
- In slightly better (but still weak) neighborhoods, market conversions could succeed for a year or two and then fail. This will occur if neighborhood incomes are low and population is declining, because whatever market exists today may well evaporate a few years from now.

Accordingly, I recommend selecting an appraiser very carefully when valuing regulated housing to be converted to market.

How Accurate Is The Valuation Process?

My personal view is that valuation is an inherently inaccurate process. It starts with expected NOI (which involves a good deal of judgment), then applies a capitalization rate (which involves even more judgment), to arrive at a value that just can't be all that accurate. My advice is to take "value," and LTV calculations, with a grain of salt (at a minimum, I recommend regarding "value" as the middle of a range that extends at least 10% higher and lower).

Lenders I have talked to agree that the LTV calculation is problematic; they place more reliance on the DSCR approach. The one circumstance where they rely more on LTV is when market interest rates are very low (and, thus, relying solely on DSCR could result in loans that are too large).

The "Historical Cost" Valuation Method

Besides the income approach, the appraisal profession uses two additional valuation methods. The first is the historical cost approach, illustrated in Figure 7.7 (next page). Under this approach, the appraiser determines the original development cost of the property, then applies a *depreciation factor* to account for the presumed loss of value as the property ages. This method is almost universally regarded as the least accurate method for valuing income-producing real estate, because the value of income-producing property has very little to do with cost, and everything to do with the property's ability to produce NOI.

Figure 7.7

Historical Cost Method of Valuation

Original Development Cost	=	$35,000	per unit
Adjusted for Property Aging	×	73.4%	
Estimated Property Value	=	$25,690	per unit

The adjustment for property aging is derived from the property's original useful life and its age.

Accordingly, I recommend that affordable housing professionals place no reliance whatsoever on the historical cost approach to valuation.

The "Comparable Sales" Valuation Method

The third valuation approach is the *comparable sales* approach, illustrated in Figure 7.8. Here, the appraiser determines the prices paid for similar properties that were recently sold, and then uses that data to determine the price that the property being valued (*subject property*) should be expected to command.

Figure 7.8

Comparable Sales Method of Valuation

	Comparable Properties		
	A	B	C
Sales Price (per unit)	$30,000	$32,500	$28,000
Comparability Adjustments	1,000	(2,000)	2,750
Adjusted Sales Price	$31,000	$30,500	$30,750
Indicated Property Value	$30,750 (average of comps)		

Comparability adjustments account for differences between the comparables and the property being valued.

The comparable sales method is very useful for income-producing property, because it relates the property's value to actual recent sales transactions. An important factor influencing the accuracy of a comparable-sales valuation is whether the appraiser has enough data about the comparable properties in order to make a good comparison.

characteristics of ideal comparable sales...

A comparable sale is ideal for analytical purposes when the comparable property is very similar to the subject property, when the sale was relatively recent, and when there were no unusual factors (examples: desperate seller, creative financing) that produced unusually low or high sales prices. The ideal comparable, in other words, is one for which the appraiser needs to make very few comparability adjustments. Other things being equal, if large numbers of adjustments are needed in order to achieve comparability, there will be many sources of potential variance in the valuation, and the valuation will be relatively less accurate.

The comparable sales method is widely used for single family homes, where usually there are large numbers of recent comparable sales. Also, single family homes don't generate income, so the income method would not be appropriate.

The comparable sales method is more problematic for apartment properties than for single family homes, because generally there are relatively few sales of comparable properties. It is still a useful method, and I recommend that affordable housing professionals ask their appraisers to use *both* the comparable sales method *and* the income method when valuing regulated housing for market conversion purposes.

Use both the comparable sales method and the income method when valuing regulated housing for market conversion purposes.

Points to Remember –

- ✶ *When lenders underwrite a property, they make their own estimate of the property's NOI and supportable debt. This estimate may or may not agree with the owner's estimate.*
- ✶ *When estimating supportable debt, lenders typically use two approaches:*
  - *Debt Service Coverage Ratio — to make sure that the loan payments are less than the property's NOI. A 120% DSCR means that each dollar of debt service is supported by $1.20 of estimated NOI.*
  - *Loan to Value Ratio — to make sure that the loan amount is less than the property's value. An 80% LTV means that the loan amount is 80% of the property's estimated value.*
- ✶ *Lenders typically will loan the lesser of:*
  - *the maximum loan by DSCR; and*
  - *the maximum loan by LTV.*
- ✶ *The Debt Service Constant is the relationship between debt service and loan amount. Debt Service Constant depends on interest rate, loan term, and credit enhancement costs (if any). To reduce the Debt Service Constant, lower the interest rate, increase the loan term, or reduce the credit enhancement costs.*
- ✶ *A standard mortgage loan requires the same payment each month. Each month, the amount paid for interest decreases and the amount paid for principal increases. This causes the outstanding principal amount to decline; it also causes the debt service constant to rise. Eventually, the debt service constant becomes high enough that the owner will consider refinancing the property.*

Points to Remember –

- ✶ *When lenders use the term 'security,' they are not talking about anti-crime measures. They are talking about how the loan gets repaid if the borrower can't make the monthly payments.*
- ✶ *Capitalization Rate is the relationship between NOI and market value, under the Income Method of Valuation. To generate a higher value, either:*
  - *Increase the NOI (i.e., operate the property more effectively); or*
  - *Decrease the Capitalization Rate (i.e., find cheaper money).*
- ✶ *It is quite difficult to determine an accurate Capitalization Rate for market conversions of regulated housing.*
- ✶ *Distrust the Historical Cost Method of Valuation.*
- ✶ *The Comparable Sales Method of Valuation is very useful in valuing apartment properties. Use it.*
- ✶ *When making decisions based on estimates of value, check to see how the decision would turn out if the estimated value is 10% too high or 10% too low. If the decision would turn out badly, make a more flexible decision, try to improve the reliability of the value estimate, or both.*