HOW MANY DOLLARS CAN I GET?

The most important calculation made when underwriting an income property loan is the calculation to determine the maximum loan the income property can support. While interest rates and points are always important, the key issue in negotiating an income property loan is usually the size of the loan.

The maximum residential loan is usually determined by the loan to-value ratio. Most income property lenders claim they will lend to 80% LTV, but few loans in practice are made at that high of a LTVR. Loan-to-value ratios of 60-75% are far more common. This discussion will describe how income property lenders arrive at the maximum amount they will lend. It is probably the most important topic in income property finance.

The key to determining the maximum loan a borrower can get is the DEBT SERVICE COVERAGE RATIO (DSCR). You will remember that the debt service coverage ratio is:

$$\text{DSCR} = \frac{\text{Net Operating Income (NOI)}}{\text{Total Debt Service}}$$

Also remember that Total Debt Service includes the P&I payments on all the mortgages that will remain on the property after your new loan is arranged.

Before proceeding let us review a little basic algebra. You will recall that if we have an equality; i.e. an algebraic expression separated by an equal sign, we can multiply or divide one side of the equation by anything we want, as long as we perform the identical operation to the other side of the equal sign. For example, let us start with the following equation:

$$\frac{6}{3} = 2$$

If we multiply both sides by 3, the equality holds: $6=2x3$

Armed with this brief refresher, let's go back and use the debt service coverage ratio (DSCR) to determine the maximum loan for which our borrower can qualify. Let's suppose that New York Life has a very attractive apartment permanent loan (long-term 1st mortgage) available, but they want a 1.25 DSCR. If we use the same operating statement that we used in our discussion on the DSCR, we will see that we have a net operating income (NOI) of $55,000 per year available.

Substituting our "knowns" into the definition of DSCR we find:

$$\text{DSCR} = \frac{\text{NOI}}{\text{Debt Service}} = 1.25$$

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$$\frac{\$55{,}000}{\text{Debt Service}} = 1.25$$

Let's isolate Debt Service by first multiplying both sides by Debt Service. This leaves us:

$$\$55{,}000 = 1.25 \times \text{Debt Service}$$

If we now divide both sides by 1.25 we arrive at our answer:

$$\frac{\$55{,}000}{1.25} = \text{Debt Service}$$

Or

$$\$44{,}000 = \text{Debt Service}$$

Don't worry if the algebra was confusing. In a little bit we are going to give you a simple formula to use. In the meantime, let's try to understand what we have actually calculated. What we have; $52,000; is the maximum annual payment that New York Life will allow us to have on our new apartment loan. With this maximum debt service number; i.e. the maximum allowable annual mortgage payment, we can work backwards to see how large of a loan New York Life will allow us (this is what we set out to find, remember?).

If we assume that New York Life is quoting 7.0% interest-only, we can set up the following equality:

7.00% x New Loan Amount = $44,000 (annual debt service)

Dividing both sides by 7% gives us:

$$\text{New Loan Amount} = \frac{\$44{,}000}{7\%}$$ (or .07 if expressed as a decimal)

Or

New Loan Amount = $628,571

At last! This is the maximum loan amount that New York Life will lend on our apartment project if they want a 1.25 DSCR.

IMPORTANT NOTE: If New York Life was writing 30 year fully-amortized loans, you would have needed your financial calculator. Simply insert 7.00% for %i, $44,000 for PMT, 30. for N, and ask your calculator to determine what loan size is fully-amortized over 30 years at 7.00% with annual payments of $44,000.

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TO CALCULATE THE MAXIMUM LOAN SIZE

STEP I: Divide the NOI by the DSCR.

STEP 2: Insert the maximum permissible payment in PMT, the the interest rate in %i, the amortization term in N, and compute PV (Present Value; i.e., the loan *size).*

IMPORTANT NOTE: If you are calculating the maximum permissible second mortgage, subtract the debt service on the first mortgage AFTER dividing by the DSCR. The net operating income must cover both the first and second mortgage with the extra "cushion", not just the second mortgage.