Letters to Mycroft #49: How Interest Rates Affect Value
by Klarise Yahya

To My Dear Nephew Mycroft,

Rental properties can provide multiple sources of income. One of these sources is appreciation. Income properties have, in the past, tended to increase in value. A significant contributing cause, given fixed supply and demand curves, is the lowering of interest rates.

Assume that new competing apartment construction exactly offsets the rise in tenant population. Under this hypothetical condition, it is unlikely that you will be able to increase your rents much more than the rate of inflation. For the purposes of this discussion, however, presume that your net operating income (NOI: income after all expenses of ownership but before mortgage payment) is $10,000 a year and that it never changes.

As we've talked about many times, the definition of "investor" is someone who buys a stream(s) of income. The price paid for any given stream of income is significantly affected by the *cost* of money. As interest rates come down, the price investors are willing to pay for any given stream of income goes up. For example, if years ago you bought a stream of net income of $10,000 a year representing a 10% return on your all cash investment, then you would have paid $100,000. That's because 10% of $100,000 is $10,000 ($10,000 divided by 0.10).

Now, assume time goes by and interest rates drop to 5%. Your stream of net income has remained at $10,000 a year. How much is $10,000 a year worth if it is capitalized (Capitalize: to convert income into a principal amount) at 5%? It is worth $200,000 ($10,000 divided by 0.05). Even though your $10,000 a year hasn't changed, the market value of the investment has doubled.

More time goes by. Interest rates rise to 20%. The value of your $10,000 annual stream of net income drops to $50,000 ($10,000 divided by 0.2).

The point here is that given stable income, properties tend to appreciate most in periods of declining interest rates. That's because, as we saw above, values go up as the cost of money goes down. The reciprocal is that increasing interest rates tend to depress property prices.

It is the reciprocal that interests us today. After all, interest rates have been declining since the early 1980's. We are now at a generational low. It is more likely that interest rates will go up in the future than that they will continue to go down.

Let's model a hypothetical apartment building under different interest rate scenarios and see what the effect of interest rates might be. We are going to assume that everything remains the same except for the sole variable of interest rates.

Example 01*:* Presume an apartment building generating $17,000 a year in gross effective income (GEI: gross income less vacancy and credit losses). After paying our fixed and variable expenses we have a net operating income (NOI) of $10,000.

The only thing that comes out of NOI is debt service. If there is no mortgage on the building, the NOI is your pre-tax cash flow.

What is the value of this stream of net income of $10,000? It is obviously worth the total of whatever loans the building will support plus the down payment demanded by the marketplace. This is not rocket science.

An annual NOI of $10,000 will support a loan of about $99,000 at 7.5% interest. The cash flow after debt service will be a little less than $1,700 annually.

Divide NOI by 12 to get a monthly figure. Then divide the monthly figure by 1.20. Why 1.20? Because that is the maximum Debt Coverage Ratio (DCR) most banks will allow on apartment building loans. It means that 20% of the monthly NOI is reserved for cash flow to the borrower, and the maximum loan amount is whatever can be serviced by the remaining 80%

In addition to the mortgage, there will be a down payment. It often seems the down payment is determined by capitalizing the *cash flow after debt service* at Certificate of Deposit rates. If C.D.'s are paying 4.5%, then most investors will require the same 4.5% cash flow on the down payment. In our fist example, if the cash flow is $1,700 annually and the buyer could get 4.5% interest on a C.D. down at the corner bank, then the market will likely require a down payment of

$38,000 ($1,700 divided by 0.045). The value of the property is therefore $137,000 ($99,000 + $38,000). The down payment is 28%.

Example 02: Everything remains the same except mortgage rates drop to 4% and C.D. rates decline to 1.5%. With lower interest rates, the building's NOI will support a higher loan of $145,000 and the down payment will increase to$113,000. The market value of the building has appreciated to $258,000, with 44% down.

Example 03: Mortgage rates have risen to 10% and C.D. yields are now 6%. The maximum mortgage supportable by the building's income has declined to $79,000 and the down payment is now only $28,000. The building's value had declined to $107,000. The down payment is 26% of purchase price.

There are some interesting observations available in this data. Clearly, we have been experiencing an environment of declining interest rates since the early 1980's. The effect on apartment buildings is illustrated by the change from *Example 01* to *Example 02*. Even if net income never increased, property value would have.

Interest rates now hover around a multi-decade low. It is more probable that interest rates will go up than that they will continue to go down. The change from *Example 02* to *Example 03* illustrates the trend on income property values should interest rates increase.

There remain significant financial benefits to income property investment, but rapid appreciation, in a period of rising interest rates, is no longer one of them.

I've been strongly recommending to my clients that they do cash-out refinances on their buildings at current low interest rates and just park the money. In a few years, I expect they will be able to buy much larger buildings with their re-fi money then they can right now.

Colloco, Ergo Sum

Aunt Klarise

Klarise Yahya *is a Commercial Loan Broker. If you are thinking of refinancing or purchasing five units or more anywhere in the U.S.A.,* ***Klarise Yahya*** *can help.* ***Find out how much you can borrow!*** *For a complimentary mortgage analysis, please call her at* ***(818) 500-9966.***