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**Real Estate Investment Newsletter – June 2003**

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**Housing versus Investment Property –  
The Role of Interest Rates and Expectations**

This month, I was inspired by a recent series of articles in The Economist magazine to revisit the issue of real estate market pricing “bubbles”. First I will identify the drivers of prices and explain the conditions that could lead to serious decline. Then I will show how current conditions differ between the housing and investment property markets and explain why I see much more risk of a bubble in the housing market than the investment market.

There are 3 factors that can drive up demand for property and therefore prices:

- Rising incomes and rents,
  - Cost of capital (e.g. interest rates), and
  - Buyer expectations of rental growth and price appreciation.
- Increases in supply of real estate can push down prices by affecting rents and expectations but we will focus on these 3 factors to explain bubble-like behavior.

Rising incomes allow home purchasers to compete with each other for housing stock by bidding up prices because higher income translates into more purchasing power for a given level of mortgage rates. Likewise renters can bid up rents and landlords will be willing to bid up investment property prices as the rental income goes up. At a more fundamental level, we find economic factors driving the increases in incomes and rents. For our purposes these factors can be ignored.

In the housing market mortgage rates constitute the relevant cost of capital for most people. Banks determine how much loan you qualify for by taking a fixed proportion of your income as your maximum loan payment. The amount of debt you can safely handle is the amount that this maximum

payment can pay off. For a 30-year loan the annual payments approximate the interest rate on the loan plus 1%, multiplied by the original loan balance. For a \$100,000 loan at 5%, annual payments would be \$6,000. At 7% the payments on the \$100,000 loan would be \$8,000. Therefore, for a fixed maximum payment we calculate the maximum mortgage by dividing the payment by the interest rate plus 1%. If your income qualifies you for annual payments of 24,000, then an interest rate of 7% implies your maximum loan amount is \$300,000 ( $=24,000/8\%$ ). If rates drop to 5% you can then qualify for \$400,000 ( $=24,000/6\%$ ). Thus a 2% decline in mortgage rates boosts consumer house purchasing power by 33%!

Similar dynamics apply to investment property loans. In addition, investors demand a return on the cash they invest in the down payment and closing costs. This required return on equity (ROE) is related to other investment returns available and is thus indirectly related to interest rates. I.e. the higher rates are, the higher the required ROE. The combination of debt and equity rates determines the capitalization rate that investors will “bid” for a property. (Recall that capitalization rate is property Net Operating Income divided by price – i.e. the gross yield on the property prior to financing costs). Thus, as interest rates decline, capitalization rates decline because investors bid based on their lowered cost of capital (debt and equity).

The final factor affecting prices is the buyers’ expectations of rental growth and price appreciation. Because growth in cash flows and sales values will determine buyers’ returns over the holding period, these expectations determine how much a buyer can afford to bid for a given required ROE. Ignoring taxes, 1% worth of appreciation would contribute roughly the equivalent amount to ROE as 1% in gross cash yield (capitalization rate) at the purchase date. If the market (required) capitalization rate in a market with 3% expected appreciation is 8%, then a market with 4% expected appreciation should have a capitalization rate of about 7%. Note that a property selling for a 7% capitalization rate would have a price 14% higher than if it was sold at an 8% capitalization rate. Therefore, all else being equal, if I expect high appreciation, I should bid higher for property.

Now let’s look at the current boom in housing prices. Clearly, declining interest rates started the boom and contributed greatly to the run-up in prices. As families could afford to bid higher for houses, they did so. In addition, expectations seem to be playing a growing role. People observe the price rises being driven by declining mortgage rates and they project

similar price increases going forward. Many may conclude that they must buy the biggest house they can afford as fast as possible before the price rises out of reach. This expectations-effect can therefore lead to a form of housing speculation: people spend more on a house than they would otherwise because they believe prices will continue to rise rapidly. This is how bubbles can form in asset prices: incorrect extrapolation of past trends to the future unsupported by future fundamental economic factors (i.e. the first two factors mentioned).

Does this same analysis apply to the investment market? Yes – and no. It applies to some segments in some places. In my opinion, San Francisco and Los Angeles rental properties are either priced based on unrealistic expectations<sup>1</sup>, or, these markets are dominated by investors who accept lower returns than investors do in other markets.<sup>2</sup> In addition, I see small investment properties in many markets that are not priced in line with larger properties. This seems to indicate that smaller investors (those investing in 4 units or less) are less sophisticated about projecting the future path of rents and values than those with more capital. Overall, however, I see little evidence of excessive optimism on the part of investors. Price rises have been driven by cheaper capital, partially offset by declining rent collections (due to the poor economy and renters converting to owners).

Now lets look at the risks of a decline in real estate prices. Interest rates are now at 45-year lows. Clearly they do not have much more room to fall. Once rates stop falling, homebuyers' purchasing power will increase at the rate of increase in income. Thus in aggregate fundamental economic factors will not continue to push prices higher at the same pace as the last few years. Eventually people's expectations will be reduced and speculative buying will cease. People who spent more than they should have will scale back and prices may well decline until speculators have been flushed out by losses. If mortgage rates actually increase, the impact will be much more pronounced because this will directly reduce the amount buyers' can bid in addition to rapidly convincing people that they were wrong to expect unending double digit price gains. This combination could produce significant losses for recent buyers and dampen appreciation for years to come.

Investment properties are not immune to rises in the cost of capital and any increase will put downward pressure on prices. Rising rent

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<sup>1</sup> Especially considering that both cities have rent control, which dampens investor gains from any surge in demand for rental housing.

<sup>2</sup> This may be entirely rational if risks are much lower than elsewhere.

collections will, however, cushion investor returns as the economy improves (that's what drives rates up in the first place) and fewer renters can afford to buy houses. As I mentioned before, sophisticated investors can see this coming and have not raised their expectations to the unrealistic levels that would spawn a speculative bubble. Thus a mild decline in prices should not be cause for alarm. It will not, in my opinion, snowball into rapid decline. Investors buying properties with a significant component of cash flow return (as opposed to relying mostly on appreciation) will earn good returns regardless of changes in the interest rate environment.

### **Conclusion**

Unsophisticated extrapolation of past trends to the future can lead to unrealistic expectations and overbidding of prices. When reality bursts those unrealistic expectations, upward pressure on prices will abate. Then sales by speculative buyers may push down prices in markets driven by "bubble" buying. Investors with access to expert advisors can avoid bursting bubbles by focusing on the fundamentals and by buying based on projections of *cash flows* rather than anticipating appreciation driven by speculation. Let Berkeley Investment Advisors show you how to identify fundamental values. Save the bubble investing for your Champaign cellar.

### **Featured Investment Opportunities**

This is a one bay drive-thru car wash adjacent to a Wall-mart SuperCenter (open 24 hours) in Texas. Based on a triple-net lease, net operating income will be \$18,000 per year for 10 years and then \$19,800 annually until June 2022. Based on an asking price of \$200,000 this is a 9% capitalization rate. I project the (after tax) return over 10 years at **12%** compounded, without disposition (9% if sold). This is based on the property appreciating at an annualized rate of 1.4% over the 10-year period so that its value is \$230,400 at the end. The purchase would require an investment of \$55,000 including closing costs.

#### **Contact Information:**

[RayMeadows@BerkeleyInvestment.com](mailto:RayMeadows@BerkeleyInvestment.com)

Tokyo phone: (080) 3122-9601

San Francisco phone (510) 367-3280