# Housing 

influencing the market is the risk premium. Investors need to be compensated for the risk of their investments. There is some evidence that during the last half of the 1990s investors were less wary of risk. In the past two years, this has been reversed. As investors grow more cautious, they require a higher expected return for their investments. One way this risk premium is revealed is through the Price/Earnings ratio. Holding everything else constant, a lower P/E ratio implies a higher risk premium. As investors become more risk averse, the price they are willing to pay for a given stream of earnings declines, and this means the P/E ratio will fall. In the past year, investors have grown more risk averse and the P/E ratio has fallen from 21.0 to 18.4 .

In reality, however, P/E ratios are influenced by other factors, such as interest rates, business cycles, and expected earnings. A common approach for industry analysts is to compute the forward $P / E$, the current price divided by the expected earnings over the next year. This approach incorporates fluctuations in earnings due to business cycles. Based on the expected earnings for 2003, the P/E is 16.7. While this is much closer to the historical average, is it still too high? One commonly used comparison on Wall Street is to contrast the P/E ratio of the S\&P 500 index with the inverse of the long-term Treasury Bond rate. If the P/E is below this target, it suggests the stock market is undervalued. With the 30-year bond rate currently at 5 percent, the inverse of the bond rate is 20.0 . Since this exceeds 16.7, it suggests that stocks are moderately undervalued.

What does this all mean for the investor? We are cautiously optimistic that 2003 will provide a decent rate of return for stock market investors. Only once since 1926-during the depression era of 1929 to 1932-has the market declined for four consecutive years. However, the economic conditions surrounding that period are virtually absent in today's economy. What could derail our predictions? The most likely area of concern is corporate earnings. If the economy falters in 2003, earnings will diminish and stock prices could fall from their existing level.

Jeffrey D. Fisher

Director, Center for Real Estate Studies and Charles H. and Barbara F. Dunn Professor of Finance and Real Estate, Kelley School of Business, Indiana University, Bloomington

Existing home sales have continued to be strong and should finish 2002 at a record level. The National Association of Realtors projects existing home sales of 5.44 million units in 2002 and the National Association of Home Builders projects 5.53 million units for 2002. This compares with 5.29 million units during 2001. Existing home sales should remain strong during 2003 although they may be slightly off the record pace of 2002.

Housing starts for 2002 will be at about 1.69 million units, which is the highest level since 1986, when housing starts peaked at 1.81 million units. Prior to that the highest level was a record 2.02 million units in 1978. The National Association of Home Builders projects housing starts to total 1.63 million units in 2003, just slightly off the 2002 level.

Table 1 summarizes the housing and interest rate forecast from the National Association of Home Builders, which is consistent with the forecast from the IU econometric model. Mortgage rates are likely to start 2003 at a slightly lower level than
the average for 2002, as rates recently dropped to record lows during the end of 2002 following the lowering of interest rates by the Fed. For the year 2003 mortgage rates are not likely to differ significantly from those during 2002 (see Figure 1).

The low mortgage interest rates in 2002 resulted in a record level of home mortgage refinancings, with more than half of the borrowers taking cash when they refinanced. This has helped fuel consumer spending. It isn't likely that this level of refinancings will continue during 2003, since most homeowners have already refinanced.

It is interesting that the market value of the residential housing market is now greater than the stock market. Of course, a large part of this is the declining stock market. The market capitalization of stocks listed on the New York Stock Exchange and the Nasdaq Composite dropped during 2002 to about $\$ 11.4$ trillion, down from a peak of $\$ 17$ trillion in March 2000. Over the same time period rising home values and increasing housing stock from new home construction boosted the value of the residential housing market to about $\$ 13.1$ trillion. Of that amount, homeowner's equity (after subtracting mortgage debt) was about \$7.5 trillion.

As suggested from the discussion above, home prices have risen significantly on a national basis with double-digit annual

Table 1
Housing and Interest Rate Forecast

|  |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: |
| Housing (in thousands) | 2000 | 2001 | 2002 | 2003 | 2004 |
| Total Starts | 1,573 | 1,603 | 1,687 | 1,630 | 1,618 |
| Single-Family | 341 | 330 | 350 | 329 | 334 |
| Multi-Family | 1,273 | 1,337 | 1,302 | 1,284 |  |
| New Single-Family Home Sales | 880 | 908 | 953 | 931 | 917 |
| Existing Home Sales | 5,159 | 5,291 | 5,533 | 5,349 | 5,274 |
| Interest Rates |  |  |  |  |  |
| Fixed-Rate | $8.1 \%$ | $7.0 \%$ | $6.5 \%$ | $6.2 \%$ | $6.9 \%$ |
| ARMs | $7.0 \%$ | $5.8 \%$ | $4.6 \%$ | $4.3 \%$ | $5.8 \%$ |
| Prime Rate | $9.2 \%$ | $6.9 \%$ | $4.7 \%$ | $4.5 \%$ | $6.2 \%$ |

Figure 1
Average Mortgage Rates

increases in median existing home prices in many metropolitan areas. In the Midwest, the median resale home price rose 5.6 percent during 2002. This strong rise in some areas of the country spurred some talk about whether a "housing bubble" was developing, but most economists do not think this is the case. However, price appreciation should return to normal patterns during 2003, rising at one or two points faster than the general rate of inflation.

Apartment rental rates have been falling and vacancy rates rising, due in large extent to low interest rates. This has allowed more new home buyers, who would not have qualified at the higher interest rates of previous years, to qualify for a mortgage. Despite the weaker fundamentals for apartments, investor demand for apartments has been extremely strong during the past year as investors have considered real estate an attractive alternative to stock and bond investments and increased their allocations to real estate. This has increased prices for apartments, despite falling rents and rising vacancy rates. Assuming the stock market improves during 2003, the demand for apartments may drop off, although there appears to be a renewed appreciation for the role that real estate can provide in diversifying an investor's portfolio.

Morton J. Marcus
Executive Director, Indiana Business Research Center, Kelley School of Business, Indiana University, Bloomington, Indianapolis, and Gary

OId truths seem to have been verified again. Indiana went into the recent recession before the rest of the nation and has had a harder time emerging from the recession than other states.

In May 2000, Indiana reached its employment peak at $3,013,700$ jobs (see Figure 1). The low for this business cycle was in June 2002 at 2,891,400, a decline of 122,300 jobs or 4.1 percent. During the same twenty-five-month period, the nation lost only 0.9 percent of its jobs. As of October 2002, Indiana's employment was 112,600 (3.7 percent) below the peak of May 2000.

## Figure 1

Indiana's Total Non-Farm Employment


Figure 2
Indiana's Total Non-Farm Employment in Two Recessions


