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HOME INVESTMENT

By Ali Anari

Residential Property Prices and Inflation

For those weighing the risks of investing in Texas real estate, two questions are paramount. Is an investment in Texas residential housing units a good hedge against inflation? And is there a housing price bubble in the state?

To answer these questions, the Real Estate Center studied the relationship between home prices and inflation in Texas over the past 26 years.

Homeowners' wealth in housing is currently the largest part of U.S. households' investment portfolios. After stock prices collapsed in 2001 and mortgage rates hit historically low levels, investment in residential housing picked up. This increase, coupled with higher home prices, boosted household wealth in real estate from $6.6 trillion in 2000 to $10.5 trillion in the second quarter of 2005 — an increase of more than 58 percent. Over the same period, household wealth in corporate equities lost a fourth of its value, falling from $8 trillion to $6 trillion.

Housing price bubbles occur when home prices grow at a rate exceeding the inflation rate in an area, especially the inflation rate for construction materials and labor. In such situations, higher home prices generally reflect increased demand.

Effects of Inflation

Inflation affects home prices two ways. The first is through increased costs: higher wages for construction labor, higher construction material costs and higher land prices. When the prices of new houses and old houses are compared, new houses are more expensive on average than old houses, and the price difference to a great extent reflects higher construction labor and material costs.

The second way inflation affects house prices is through its impact on rents. Irving Fisher, a noted American economist, put forth a theory about the relationship between interest rates and inflation rates that can be applied to housing market rents. According to Fisher, when lenders loan money, they consider the expected inflation over the term of the loan and add that expected inflation rate to the interest rate they charge. If lenders want to charge 2 percent interest and expect a 3 percent rate of inflation, they charge 5 percent interest on the loan.

A similar process takes place in housing markets. When landlords rent housing units, they consider recent inflation rates as well as expected inflation rates over the terms of rental contracts. They increase rents to meet their inflation expectations.

Higher rents translate into higher home prices because the price of a home is equal to the present value of future streams of actual or imputed rents (gross rents minus maintenance costs, taxes, depreciation and so forth). Thus, inflation impacts house prices through increased rents.

House Prices, Inflation Reviewed

Examining the relationship between Texas home prices and inflation means looking at the difference between growth rates for home prices and consumer price indexes. If growth rates for home prices exceed those for consumer price indexes in a particular region, homeowners accumulate more residential wealth.

The Real Estate Center constructed indexes of Texas home prices by dividing the time series of the annual average price of homes sold in Texas by the average price of homes sold in 1979 (the base year) and multiplying the result by 100.

A similar procedure was applied to two consumer price indexes used for analysis: the Houston consumer price index compiled by the Dallas Federal Reserve Bank and the U.S. consumer price index (minus costs of shelter) produced by the U.S. Bureau of Labor Statistics. The consumer price index for each year was divided by the consumer price index for 1979 (the base year) and the result was multiplied by 100.

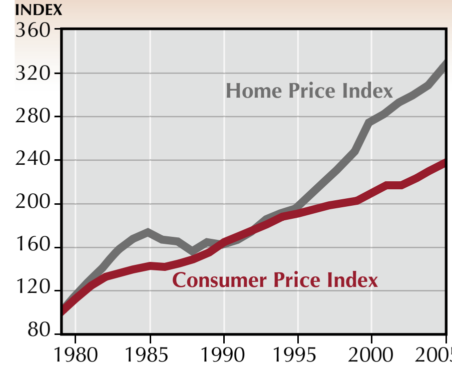
The index of Texas home prices rose from 100 in 1979 to 175.8 in 1985. That is, $100 invested in a Texas housing unit in 1979 was worth $175.80 in 1985. Over the same period, the Houston consumer price index rose from 100 to 142.9 (Figure 1). The difference between the two indexes, 32.9 percent, is the increase in the purchasing power of $100 invested in Texas housing units.

In the years following the oil price collapse of 1985–86, the Texas home price index fell to 168.8 while the 1991 consumer price index rose to 170.4. Texas homeowners lost all gains in residential wealth in real terms.

Home Price Index Peaks

But beginning in 1992, Texas home prices started a steady recovery from the 1986 recession. By 2005, the Texas home price index peaked at 327.2, well above the 237.5 level of the consumer price index. One hundred dollars invested in a Texas housing unit in 1979 grew to $327.20 in 2005. Homeowners enjoyed the comfort and security of homeownership and reaped financial benefits from their housing investments as well.

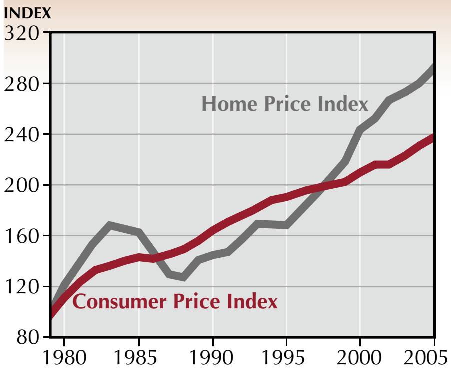
Figure 1
Texas Home Price Index, Houston Consumer Price Index



Sources: Real Estate Center at Texas A&M University and Bureau of Labor Statistics

Houston and Dallas, two giant housing markets in Texas, suffered several years of losses in residential wealth as a result of the 1986 recession. The Houston home price index stayed below the area's consumer price index from 1987 to 1997 (Figure 2). In 2005, the metro area's housing market recovery raised the area's home price index to 292.8.

Figure 2
Houston Home Price Index, Houston Consumer Price Index



Sources: Real Estate Center at Texas A&M University and Bureau of Labor Statistics

The Dallas home price index remained below the city's consumer price index from 1990 to 1997 (Figure 3). From 1997 to 2005, the area's home price index rose from 212.1 to 309.2.

From 1979 to 2005, Texas home prices grew at an average annual rate of 4.7 percent (see table). Galveston ranks first in home price appreciation (5.5 percent) followed by Austin (5.2 percent), Killeen-Fort Worth (5 percent) and San Antonio (4.8 percent). Dallas and Houston experienced average annual home price appreciation rates of 4.4 percent and 4.2 percent, respectively.

Deducting the annual inflation rates from the annual average home price appreciation rates gives the inflation-adjusted growth rates for home prices. Using the Houston consumer price index as a consumer price index for the state results in an annual average inflation rate of 3.4 percent. This, when deducted from the annual average rates of home price appreciation provides home price appreciation rates in real terms (adjusted for inflation).

Housing Still Good Investment

As the fourth column of the table shows, Texas home prices have appreciated at an average annual rate of 1.3 percent above the rate of inflation since 1979.

Because home prices are included in the construction of consumer price indexes, one can argue that higher home prices lead to higher consumer price indexes and vice versa, so the relationship between the two indexes is contaminated with the impact of home prices on the consumer price indexes. For this reason, the Center also looked at the consumer price index minus shelter costs, which excludes housing costs, and computed average annual inflation rates from these series.

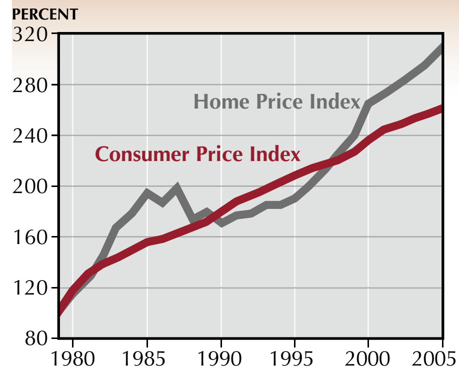
The last column of the table shows the average annual growth rate of home prices over the consumer price index (excluding housing costs) for Texas residential real estate markets. On average, Texas home prices have appreciated at an average annual rate 1.1 percent above the inflation rate for nonhousing goods and services.

Considering all the data collected, it is safe to say that investing in housing is a good hedge against inflation in Texas. Texas home prices in different regions and times have had their ups and downs. Over the long run, however, the value of the state's residential housing wealth has not been eroded by inflation.

As to whether there is a Texas housing price bubble, the differences between the average rates of increase in home prices and inflation rates in almost all Texas housing markets are not large enough to warrant concerns. Home price appreciation over the past eight years in Texas has mainly recovered the ground lost in the second half of 1980s.

Dr. Anari (m-anari@tamu.edu) is a research economist with the Real Estate Center at Texas A&M University.

Figure 3
Dallas Home Price Index, Dallas Consumer Price Index



Sources: Real Estate Center at Texas A&M University and Bureau of Labor Statistics

Texas Home Price Growth Rates and Inflation Rates, 1979–2005

			Annual Growth Rates		
Region	Home Price		Home Price Appreciation (Percent)	Home Price minus Inflation Rate	
	1979	2005		Houston CPI* (Percent)	CPI* minus Shelter (Percent)
Texas	$52,900	$173,100	4.7	1.3	1.1
Abilene	38,000	99,000	3.8	0.4	0.2
Amarillo	39,400	125,600	4.6	1.2	1.0
Arlington	63,100	143,500	3.2	–0.2	–0.4
Austin	56,000	209,200	5.2	1.8	1.6
Beaumont	47,300	121,600	3.7	0.3	0.1
Bryan-College Station	45,700	143,200	4.5	1.1	0.9
Corpus Christi	46,700	146,000	4.5	1.1	0.9
Dallas	65,400	202,200	4.4	1.0	0.9
El Paso	48,700	130,900	3.9	0.5	0.3
Fort Worth	42,900	132,800	4.4	1.0	0.9
Galveston	50,000	200,400	5.5	2.1	1.9
Houston	62,800	183,900	4.2	0.8	0.6
Killeen-Fort Hood	31,500	112,000	5.0	1.6	1.4
Lubbock	45,500	121,200	3.8	0.4	0.3
McAllen	53,800	121,100	3.2	–0.2	–0.4
Odessa-Midland	49,400	109,300	3.1	–0.3	–0.5
Port Arthur	36,900	109,000	4.3	0.9	0.7
San Angelo	36,800	102,800	4.0	0.6	0.5
San Antonio	45,300	154,400	4.8	1.4	1.2
Sherman-Denison	36,400	111,900	4.4	1.0	0.8
Texarkana	36,000	110,100	4.4	1.0	0.8
Wichita Falls	36,000	105,600	4.2	0.8	0.6

*Consumer Price Index
Sources: Real Estate Center at Texas A&M University and Bureau of Labor Statistics

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Texas A&M University
2115 TAMU
College Station, TX 77843-2115

http://recenter.tamu.edu
979-845-2031

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