

# ECONOMIC REAL ESTATE TRENDS<sup>SM</sup>

FALL 2006

PMI MORTGAGE INSURANCE CO.

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## Understanding a Changing Market

By Mark F. Milner, Chief Risk Officer, PMI Mortgage Insurance Co.

There's no longer any doubt that the housing market is cooling. As homeowners or prospective homeowners we pore over each new data point, trying to figure out where the market is going. And who can blame us? For most of us, a home is still the biggest purchase we'll ever make—and a significant part of our retirement plans. Only time will tell whether we'll ultimately experience a slowdown, isolated price dips, or a more substantial correction. In the meantime, as we watch the data, it's important to understand what we're seeing. That's what this issue of *Economic and Real Estate Trends* is about.

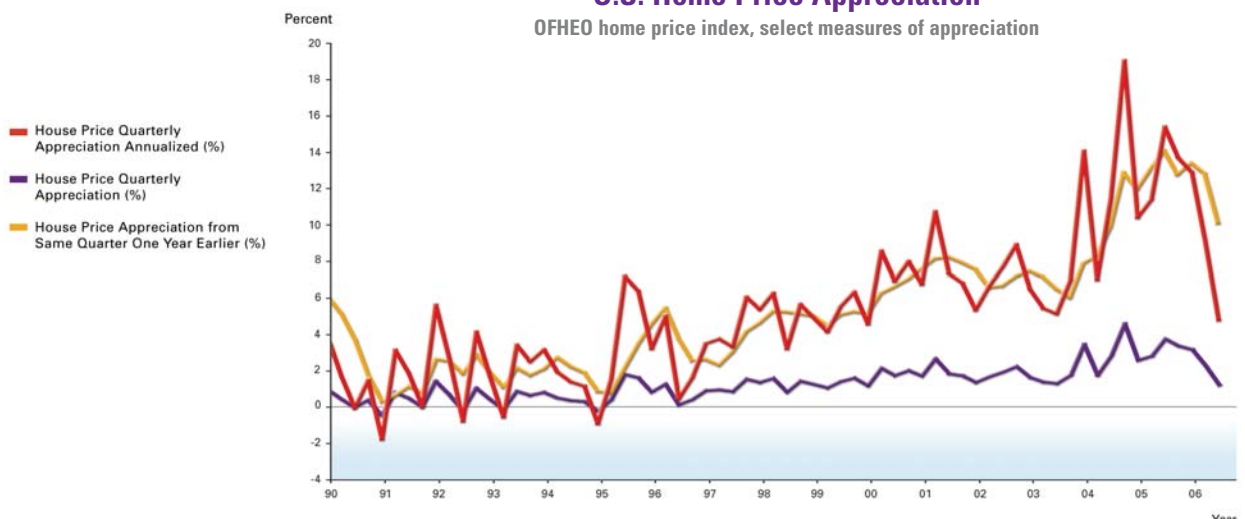
Many of the accounts we read provide year-over-year comparisons of data. That's a perfectly standard practice, but it may not provide the most accurate picture, because a year ago we were in a positively surreal market, where rock-bottom interest rates and

spiraling appreciation combined to create a set of circumstances that was unprecedented by historical standards. To get a realistic picture of what's going on today, the question we should be asking is, "How do these numbers compare to the long-term average?"

(continued on page 2)

### U.S. Home Price Appreciation

OFHEO home price index, select measures of appreciation





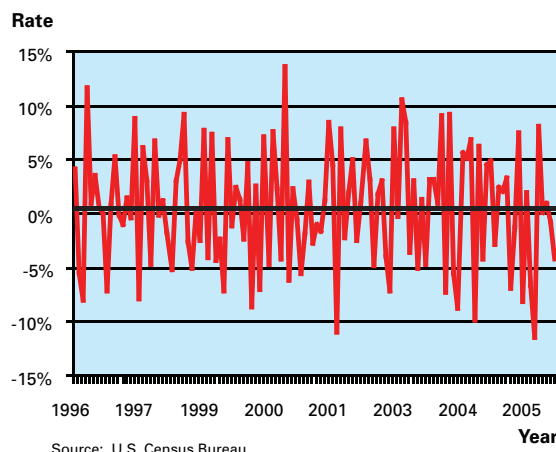
## Changing Market *(continued from page 1)*

We heard, for example, that new home sales fell 4.3 percent in July. That sounds like a lot, but if you look at that same figure over a 10-year period, you see that the change is totally within the normal variation for that statistic. Taking a longer-term view enables us to understand that the numbers we're seeing today, while lower than a year or a month ago, are not unusual by historical norms.

Defining our terms carefully can also help ensure that we understand each other. Take house prices, for example. We've heard quite a bit about them falling recently—but when we read between the lines, we find that in many cases what's happening is that a seller is accepting a price that is less than the price they had hoped to get. Now, if I put my house on the market for \$300,000 and eight weeks later I accept an offer of \$275,000, I'll probably be disappointed, but losing paper profits is different from losing real money. What matters is how much I originally paid for my house, and whether the sale price today is more or less than that. Since house prices in the United States have appreciated an average of 56 percent over the past five years, I probably haven't lost money on that hypothetical \$275,000 sale, and I may have made quite a bit. The best indicator of home price changes is the house price index published by the Office of Federal Housing Enterprise Oversight (OFHEO), a repeat transaction index that shows the average rate of change in house prices in areas across the country. This is the index that feeds into our U.S. Market Risk Index<sup>SM</sup>, because we think it's the most accurate indicator available. Taking a year-over-year comparison, the house price index shows that only one of the top 50 areas, Detroit, had a price decline, and it's a small one, less than one percent.

With all of this in mind, this issue of ERET is focused on clarity. In "Reading the Tea Leaves" on page 4, we look at eight of the most closely watched indicators in real estate. We define them, tell you who publishes them, and (to provide a context for how to evaluate them) provide some charts showing long-term trends. Similarly, in "Focus on Four Regions" on page 8, we take an in-depth look at how the market transition is manifesting itself in four representative metropolitan areas: Boston, MA, San Diego, CA, Miami, FL, and Detroit, MI.

### % CHANGE IN NEW HOME SALES



I don't mean to downplay the change we're seeing in the market—it's significant. Prices are not rising as fast or as far as they have been, houses are staying on the market longer, and sellers are suddenly willing to share closing costs or offer other concessions, clear indications that the balance of power between buyers and sellers has shifted.

But it's important to remember that there are tried and true strategies for surviving the shifting market. For companies, those with nationally diversified portfolios should be in good shape to weather the changes we're seeing. Individuals should keep in mind that homeownership is a long-term investment, not a short-term market trade.

And finally, while it sounds trite, remember that every cloud does have a silver lining. A cooler market may be a challenge for sellers, but it's a welcome development for buyers, particularly those whose incomes are low or moderate for their areas and who were sidelined as prices appreciated at rates that far outstripped incomes. A market where prices and incomes stay in balance and homeowners build equity gradually over time may not be as exciting as the roller coaster ride we've been on the past couple of years, but it's a lot healthier for everyone. ♦

# Local Economic Patterns and MSA Indicators

The U.S. Market Risk Index<sup>SM</sup> on pages 6 and 7 ranks the likelihood of home price declines for the nation's 50 largest metropolitan statistical areas (MSAs). The scores use second quarter 2006 house price data from OFHEO, employment data from the Bureau of Labor Statistics (BLS), and PMI's proprietary Affordability Index<sup>SM</sup>.

The average risk score is 328, indicating a 32.8 percent chance of home price declines within the next two years. This is a 40-point increase in the index score from last quarter, and a 110-point increase from the same quarter a year earlier. This quarter, 18 MSAs have a greater than 50 percent chance of home price declines, up from 13 last quarter and five from the same quarter a year ago.

Several trends emerge:

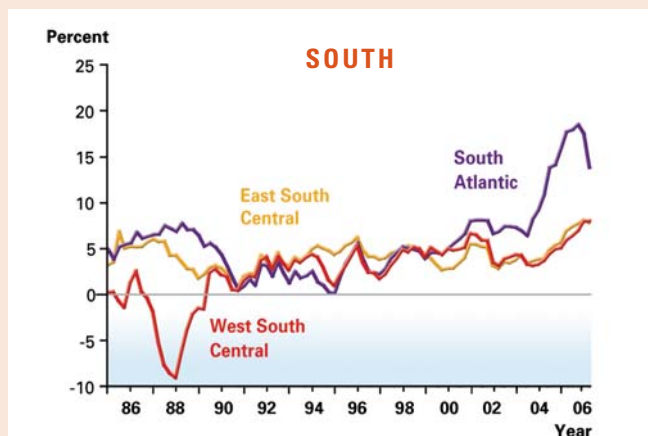
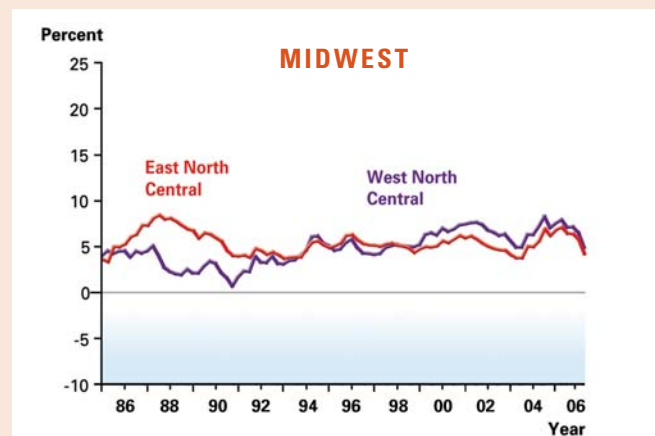
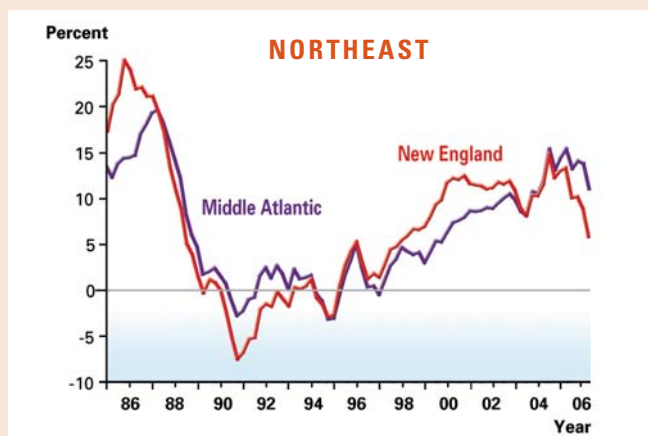
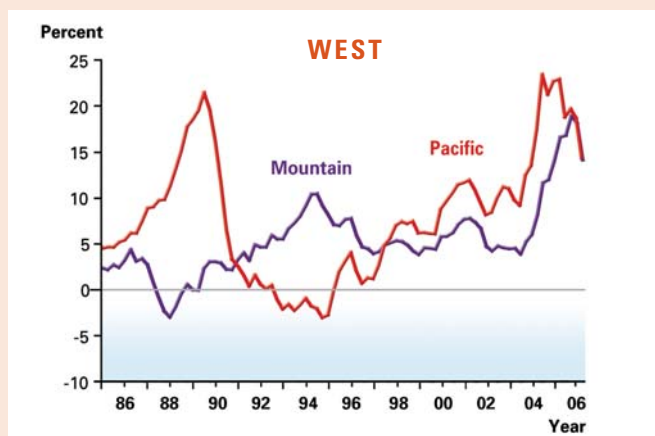
- **Appreciation** – Price appreciation has decelerated in all but nine MSAs; but fully 20 MSAs still experienced double-digit appreciation year over year.
- **Affordability** – Affordability dropped in all 50 MSAs, with the most significant changes occurring in the lower half of the Risk Index.
- **Employment** – Job growth was strong in all but four MSAs, and unemployment levels dropped in more than half of the MSAs.

Taken together, these statistics emphasize the need for home prices and income to come back into balance. Over the past five years, home prices have appreciated more than 56 percent, on average, while incomes have increased only 25 percent. Moderating appreciation over time should bring prices back into line with economic fundamentals, particularly incomes.

(continued on page 9)

## Regional Home Price Appreciation

by Census Division, percent change over previous four quarters as of second quarter 2006



# Reading the Tea Leaves in Times of Economic Change

## Using Economic Indicators as Forecasting Tools

Housing market observers are data junkies, eagerly awaiting the latest report on home sales, median prices, or housing starts. But what do these statistics actually tell us? To help make sense of it all, here's a look at some of the most commonly watched economic indicators for the housing market: what they are, what they mean, where they come from, and most importantly, where they tell us we're going.

**Housing Starts:** Literally, this is a count of how many new houses are started in a given period. This measure is closely related to other indicators such as housing permits and completions. It is considered a prime indicator of homebuilders' confidence in the future prospects of the housing market. As starts decline, builders are likely signaling a decline in confidence in the market's near-term growth prospects.

SOURCE: U.S. CENSUS BUREAU

**New Home Sales:** This index is based on the sale of new homes (defined by the Census Bureau to occur with the signing of a sales contract or the acceptance of a deposit). The house can be in any stage of construction (not yet started, under construction, or already completed). New home sales usually lead the existing home sales market by a month or two. Thus, a weakening in new home sales, confirmed by a weakening in existing home sales, is likely indicative of a softening in housing demand.

SOURCE: U.S. CENSUS BUREAU

**Existing Home Sales:** This measure is based on transaction closings of existing single-family homes, including townhomes, condominiums, and co-ops. Existing home sales, which generally account for 85 percent of total home sales, are based on a large sample—nearly 40 percent of multiple listing service data surveyed each month—and typically are not subject to large prior month revisions. Falling figures are associated with softening markets.

SOURCE: NATIONAL ASSOCIATION OF REALTORS (NAR)

**Monthly Supply of New Houses:** Inventory statistics—the ratio of new or existing houses for sale to houses sold—generally provide an indication of the size of the for-sale inventory in relation to the number of houses currently being sold. The months' supply indicates how long the current for-sale inventory would last given the current sales rate. Low inventory levels (relative to

historical trends) are typically associated with a sellers' market and often signal the onset of rising prices. Historically high levels generally signal a market in which buyers have the upper hand.

SOURCE: U.S. CENSUS BUREAU – NEW;

NATIONAL ASSOCIATION OF REALTORS (NAR) – EXISTING

**Median Sales Price:** Computed from data compiled from the various state realtor associations and Census Bureau field representatives, the median sales price indicates the price point where half of the houses sold in that month have a lower sales price and half have a higher price. Realtor associations often use the median sales price to evaluate local affordability, reporting what percentage of families in a given area can afford the median-priced home. This measure can be quite volatile, affected by seasonality, as well as by what homes are sold in a particular month in any given location, especially if the number of homes sold is small.

SOURCE: NATIONAL ASSOCIATION OF REALTORS (NAR) – EXISTING;

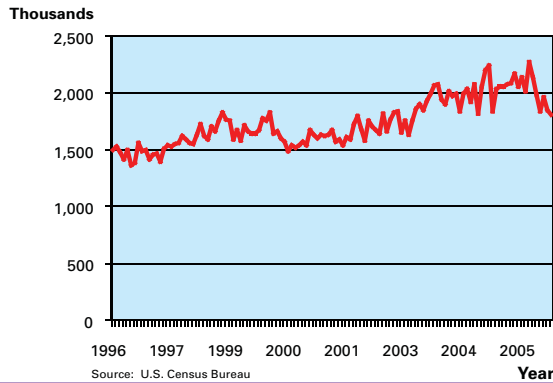
U.S. CENSUS BUREAU – NEW

**Office of Federal Housing Enterprise Oversight House Price Index (OFHEO HPI):** The OFHEO HPI is a weighted repeat sales index that follows the price path of homes that are sold repeatedly over the observation period. It uses the change in the purchase prices to construct a historical price index dating back to the late 1970s. It is less volatile than median sales price in that it is not affected by seasonality trends or by the number or type of homes sold in a given period. The index is based on data collected from the government-sponsored enterprises Fannie Mae and Freddie Mac and covers homes financed with loans securitized by these two companies, thus accounting for more than half of all U.S. mortgages (it does not include homes whose mortgages were originated above the GSEs' conforming loan limit, currently \$417,000, or non-conventional loans—loans that are guaranteed by the FHA, VA, or other federal government entities).

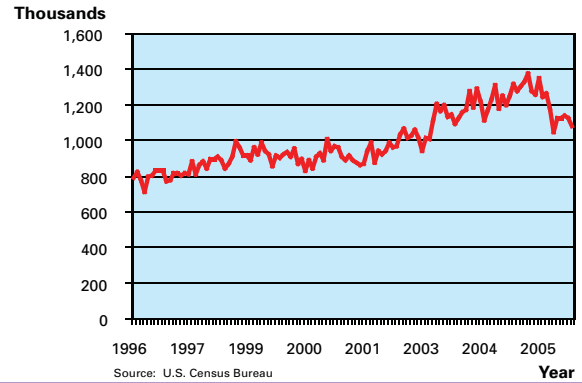
SOURCE: OFFICE OF FEDERAL HOUSING ENTERPRISE OVERSIGHT (OFHEO)



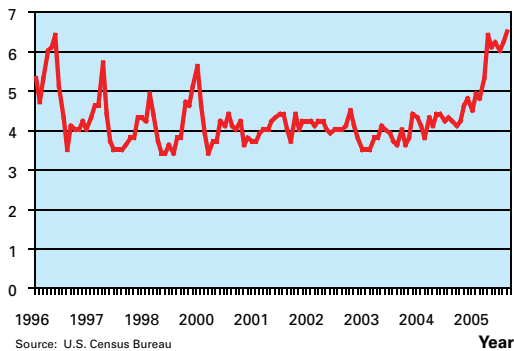
### HOUSING STARTS



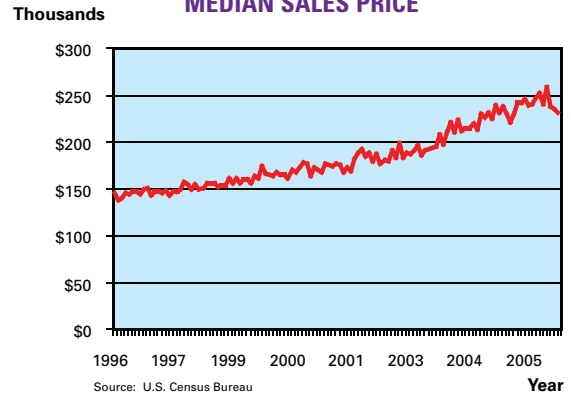
### NEW HOMES SOLD



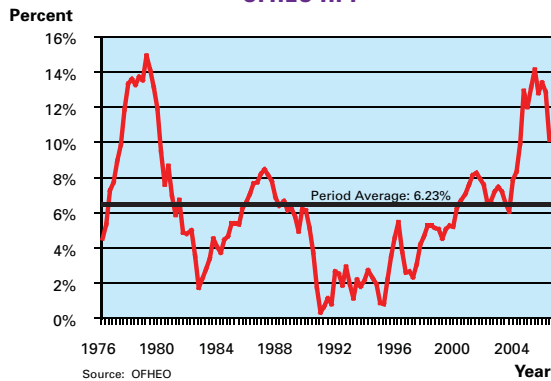
### MONTHS SUPPLY OF NEW HOUSES



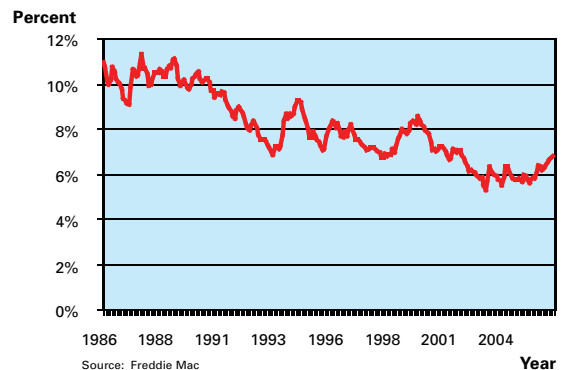
### MEDIAN SALES PRICE



### OFHEO HPI



### 30-YEAR FIXED RATE



**Affordability:** Housing affordability indices measure how expensive single-family homes are as a proportion of income in a given area. Although different organizations calculate the measure differently (for example, realtor associations typically use their median sales price measure while the PMI Affordability Index<sup>SM</sup> is based on the OFHEO HPI), they share the characteristic that the measure is judged relative to the index base of 100 with higher values indicating greater affordability. High rates of house price appreciation and higher interest rates hurt the average family's ability to qualify for a mortgage, and thus would likely be associated with declining levels of affordability.

SOURCE: NATIONAL ASSOCIATION OF REALTORS (NAR);  
THE PMI GROUP, INC.

**Mortgage Delinquency Rates:** Compiled from data collected from more than 41 million mortgage loans serviced by mortgage companies, commercial banks, thrifts, credit unions, and others, this measure indicates how many borrowers are having trouble meeting their mortgage obligations. Delinquency and foreclosure rates are detailed by time period (e.g., 30-59 days, 60-89 days, 90+ days) and product (prime, subprime, VHA, and FHA) as well as geography. Steadily rising survey values are typically associated with a weakening economy and housing market.

SOURCE: MORTGAGE BANKERS ASSOCIATION

And finally, although indicators can tell us a lot on their own, to gain a complete view of the market, they should always be considered in combination, along with how they may deviate from their historical trend. And because the

housing market does not exist in a vacuum, other indicators, such as mortgage interest rates, job growth data, and unemployment rates, can affect their expected paths and impact on the broader market. ♦

## MSA

	RISK MEASURES
	Risk Index <sup>1</sup>
San Diego-Carlsbad-San Marcos, CA	603
Sacramento-Arden-Arcade-Roseville, CA	601
Oakland-Fremont-Hayward, CA (MSAD)	600
Santa Ana-Anaheim-Irvine, CA (MSAD)	599
Nassau-Suffolk, NY (MSAD)	598
Riverside-San Bernardino-Ontario, CA	596
Boston-Quincy, MA (MSAD)	596
Providence-New Bedford-Fall River, RI-MA	590
Los Angeles-Long Beach-Glendale, CA (MSAD)	590
San Jose-Sunnyvale-Santa Clara, CA	589
San Francisco-San Mateo-Redwood City, CA (MSAD)	587
Edison, NJ (MSAD)	578
Cambridge-Newton-Framingham, MA (MSAD)	566
New York-White Plains-Wayne, NY-NJ (MSAD)	543
Fort Lauderdale-Pompano Beach-Deerfield Beach, FL (M	541
Las Vegas-Paradise, NV	540
Washington-Arlington-Alexandria, DC-VA-MD-WV (MSAD)	540
Newark-Union, NJ-PA (MSAD)	531
Miami-Miami Beach-Kendall, FL (MSAD)	471
Baltimore-Towson, MD	432
Virginia Beach-Norfolk-Newport News, VA-NC	413
Tampa-St. Petersburg-Clearwater, FL	404
Minneapolis-St. Paul-Bloomington, MN-WI	393
Detroit-Livonia-Dearborn, MI (MSAD)	379
Phoenix-Mesa-Scottsdale, AZ	353
Orlando-Kissimmee, FL	313
Warren-Troy-Farmington Hills, MI (MSAD)	234
Atlanta-Sandy Springs-Marietta, GA	201
Denver-Aurora, CO	187
Philadelphia, PA (MSAD)	179
New Orleans-Metairie-Kenner, LA	167
Portland-Vancouver-Beaverton, OR-WA	158
Seattle-Bellevue-Everett, WA (MSAD)	153
Chicago-Naperville-Joliet, IL (MSAD)	147
Milwaukee-Waukesha-West Allis, WI	140
St. Louis, MO-IL	133
Austin-Round Rock, TX	114
Kansas City, MO-KS	109
Charlotte-Gastonia-Concord, NC-SC	98
Dallas-Plano-Irving, TX (MSAD)	89
Houston-Sugar Land-Baytown, TX	88
Nashville-Davidson-Murfreesboro, TN	86
San Antonio, TX	78
Fort Worth-Arlington, TX (MSAD)	76
Columbus, OH	74
Cleveland-Elyria-Mentor, OH	74
Cincinnati-Middletown, OH-KY-IN	72
Memphis, TN-MS-AR	68
Indianapolis-Carmel, IN	63
Pittsburgh, PA	61

HOME PRICES		
Appreciation <sup>2</sup>		Acceleration <sup>3</sup>
2004Q2:2005Q2	2005Q2:2006Q2	
19.55%	5.46%	-14.09%
23.31%	6.30%	-17.00%
22.73%	10.55%	-12.17%
21.28%	14.54%	-6.75%
16.37%	9.87%	-6.50%
24.02%	16.32%	-7.70%
11.07%	2.88%	-8.19%
14.66%	5.89%	-8.78%
23.26%	17.55%	-5.70%
20.97%	9.80%	-11.17%
19.32%	8.86%	-10.46%
16.51%	11.21%	-5.30%
10.68%	1.53%	-9.15%
16.64%	11.44%	-5.20%
25.20%	18.92%	-6.28%
24.33%	11.21%	-13.11%
24.11%	14.56%	-9.55%
16.55%	10.84%	-5.71%
23.02%	22.60%	-0.42%
20.71%	14.86%	-5.85%
22.70%	16.03%	-6.67%
20.34%	20.68%	0.34%
9.26%	4.59%	-4.66%
3.21%	-0.61%	-3.82%
27.95%	23.19%	-4.76%
23.44%	23.31%	-0.14%
4.21%	0.72%	-3.49%
5.44%	4.54%	-0.90%
4.54%	2.68%	-1.86%
15.64%	11.42%	-4.22%
7.88%	14.98%	7.10%
14.71%	18.47%	3.76%
14.36%	15.72%	1.36%
11.01%	8.71%	-2.31%
10.61%	6.12%	-4.49%
8.80%	5.44%	-3.36%
4.75%	8.08%	3.33%
5.69%	3.56%	-2.13%
3.95%	7.87%	3.93%
3.68%	3.32%	-0.36%
4.50%	6.65%	2.15%
7.42%	9.09%	1.66%
8.18%	7.87%	-0.31%
3.51%	3.91%	0.40%
5.33%	2.97%	-2.36%
4.12%	1.99%	-2.13%
5.47%	2.49%	-2.98%
4.67%	4.53%	-0.14%
4.38%	1.32%	-3.05%
6.05%	3.35%	-2.69%

# INDICATORS *As of September 2006*

## LABOR MARKETS

Employment Growth <sup>4</sup>	Unemployment Rate 2006Q2	
2005M06:2006M06	Local <sup>5</sup>	Local De-meaned <sup>6</sup>
1.35%	3.87%	-0.56%
2.35%	4.50%	-0.40%
2.27%	4.37%	-0.68%
0.77%	3.37%	-0.75%
0.60%	3.90%	-0.21%
2.74%	4.53%	-1.10%
0.97%	4.91%	0.68%
0.46%	5.49%	0.57%
1.25%	4.70%	-1.48%
0.34%	4.67%	-1.31%
1.32%	4.00%	-0.69%
1.36%	4.50%	0.11%
0.97%	4.15%	0.33%
1.23%	4.80%	-1.55%
3.83%	2.87%	-1.89%
5.32%	3.97%	-1.22%
2.55%	3.10%	-0.40%
-0.59%	5.00%	0.10%
1.27%	3.63%	-2.23%
1.24%	4.03%	-0.35%
1.59%	3.47%	-0.11%
2.37%	3.00%	-1.40%
2.49%	3.47%	-0.21%
-1.03%	7.67%	1.24%
5.20%	3.60%	-0.83%
4.26%	2.83%	-1.49%
-0.36%	5.73%	0.94%
2.53%	4.60%	0.63%
2.12%	4.57%	0.05%
0.92%	4.67%	-0.24%
-35.07%	6.43%	1.37%
2.54%	5.17%	-1.25%
4.05%	4.20%	-1.13%
1.16%	4.57%	-1.27%
0.24%	5.23%	0.40%
0.68%	4.90%	0.21%
2.84%	4.10%	-0.37%
1.29%	4.70%	0.04%
2.13%	4.50%	-0.40%
3.48%	4.93%	-0.30%
2.57%	5.17%	-0.30%
2.42%	4.40%	0.51%
1.94%	4.77%	-0.12%
2.39%	4.83%	-0.04%
0.85%	4.60%	0.48%
0.17%	4.77%	-0.14%
0.91%	5.13%	0.68%
1.34%	6.07%	1.25%
0.04%	4.40%	0.76%
0.94%	4.83%	-0.26%

## AFFORDABILITY

### Index<sup>7</sup> (1995Q1=100)

68.10
67.29
64.49
60.95
66.83
58.16
79.08
78.15
58.59
68.13
72.12
73.67
88.05
72.79
56.78
73.84
76.66
81.42
59.37
84.93
85.90
68.09
85.28
95.91
68.65
70.29
102.34
98.61
102.49
93.06
96.28
82.30
88.71
92.16
103.13
104.43
114.40
109.50
116.04
124.38
122.56
111.63
124.29
129.40
121.85
118.82
124.76
127.07
131.10
127.54

1. The **Market Risk Index score** translates to a percentage that predicts the probability of a house price decline over the next two years. For example, a Risk Index score of 100 means there is a 10% chance that house prices in that MSA will fall in two years.
2. **Appreciation** measures increases in home prices for the previous and current year (*based on quarterly OFHEO HPI*). Research indicates that house price growth is very persistent in the short run: a year of low appreciation is likely followed by another year of low appreciation. Consequently, low or negative appreciation in the past year is a sign of impending trouble. The Risk Index score will thus vary inversely with last year's appreciation.
3. Using previous and current year appreciation, **acceleration** measures the change in home price appreciation. For example, consider a metropolitan area where the property value of a typical house was \$100,000 at the end of 2000, \$110,000 in 2001, and \$111,100 in 2002. Home price appreciation for this area is 10% for the year 2001 and 1% for the year 2002. Because the appreciation rate dropped by 9% points from the year 2000 to the year 2001, home price acceleration is minus 9% points at the end of 2002. The model interprets negative home price acceleration (*slowing growth*) as a warning sign that home prices may be close to their peak and likely to fall soon. Accordingly, the Risk Index score increases as home price acceleration declines, other things equal.
4. The **employment growth rate** is calculated with Bureau of Labor Statistics total non-agricultural employment monthly observations, from the indicated months (*12-month growth rate*). Lower employment growth is a sign of weakness in the local economy; therefore, the Risk Index score increases as employment growth falls.
5. The **local unemployment rate** is calculated with Bureau of Labor Statistics MSA-wide quarterly averages, not seasonally adjusted.
6. The **de-meanded unemployment rate** indicates the current unemployment rate compared to its past rate. For example, a de-meanded unemployment rate of 1% for the calendar year 2005 means that the current unemployment rate is 1% higher than the five-year average from 1999 to 2003. The higher the de-meanded unemployment rate, the higher the Risk Index score.
7. Using median household income, home price appreciation, and the cost of the 30-year fixed rate mortgage (FRM), PMI's **Affordability Index** (AI) measures the change in home purchasing power over time according to how affordable homes are today compared to 1995. An AI score above 100 means homes are more affordable; a score below 100 means they are less affordable. For example, an AI score of 110 means that if your monthly mortgage payment took 30% of your monthly income in 1995, today it takes only 27% (*a change of 10% based on the original ratio of 30%*). Conversely, an AI score of 90 means that the share of your monthly income taken by your monthly mortgage has increased to 33%. The higher the AI, the less vulnerable a housing market is to local economic shock (and hence the lower is the Risk Index score). The AI score is calculated as  $AI_t = (I_t/QI_t)/(I_{95}/QI_{95})$  where subscript  $t$  denotes the current quarter,  $I_t$  measures household income, and  $QI_t$  represents qualifying income index defined as

$$QI_t = HPI \cdot 0.80 \cdot 4 \cdot 12 \cdot \left[ \frac{r}{12} \frac{(1 + \frac{r}{12})^{360}}{(1 + \frac{r}{12})^{360} - 1} \right]$$

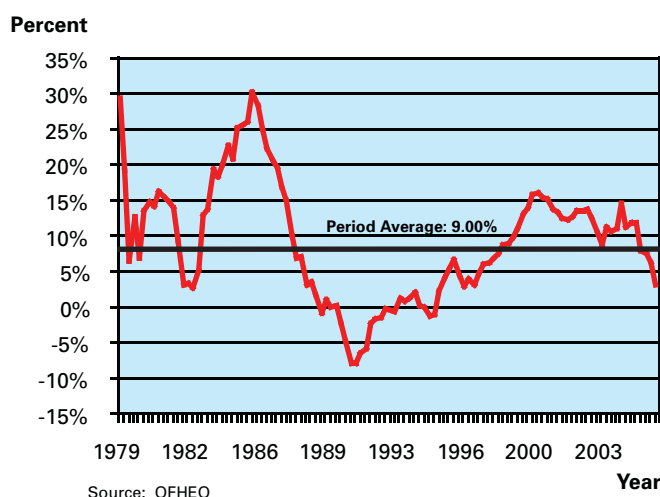
where  $r$  denotes the 30-year FRM, 0.80 is LTV, and  $4 \cdot 12 \cdot [.]$  represents index of the annual mortgage payment under a 25% mortgage payment-to-income threshold.

# FOCUS ON FOUR REGIONS

After several years of rapid house price growth across much of the nation, many MSAs are beginning to see a reduction in rates of appreciation, and a few areas are seeing declines, giving rise to the inevitable question, "What's next?" In this article, we take a page from Tip O'Neill, late speaker of the U.S. House of Representatives, noting that like politics, all real estate is local. We've selected the MSAs of Boston, San Diego, Miami, and Detroit to illustrate this point and to provide some insight into what the future of their housing markets may entail given their recent economic history and current conditions.

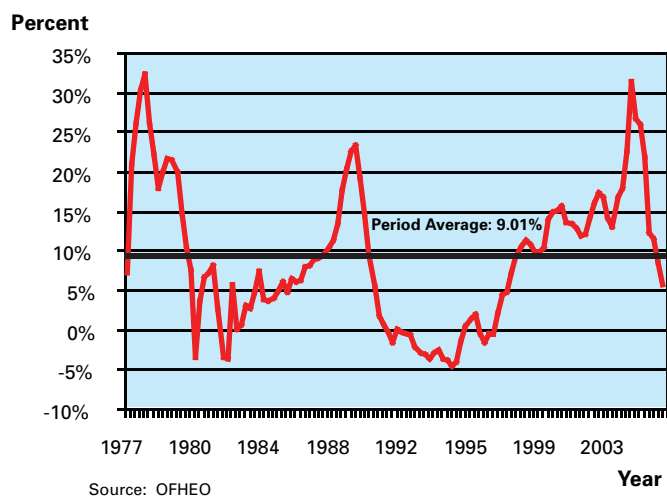
**BOSTON, MA:** Boston, along with other MSAs in the northeast, led the recent real estate cycle, with appreciation increasing at an average rate exceeding 10 percent for 10 years, peaking at almost 14 percent from Q3'03 to Q3'04. In line with the national trend, economic and housing sector growth has slowed substantially in the Northeast, and Boston has transitioned into a period of increasingly restrained growth. During the most recent quarter, house price appreciation slowed to 2.9 percent, substantially below the previous quarter's rate of 6 percent. The employment picture in Boston is mixed. Job growth, while not terribly strong, is positive at almost 1 percent year over year. While the unemployment rate fell slightly from Q1'06 to Q2'06, it remains more than half a percentage point above its long-term average. High interest rates and energy prices relative to recent experience, combined with the somewhat weak job situation, may put downward pressure on home prices, but in the long run slower growth in home prices should improve affordability and ultimately help to bring new buyers into the market.

ANNUAL HOUSE PRICE APPRECIATION RATE - BOSTON



**SAN DIEGO, CA:** During the extended period of growth in the housing sector, MSAs throughout the Western region experienced some of the fastest rates of appreciation and sales growth in the nation. San Diego followed a curve similar to Boston's, with nine years of consistently accelerating house price appreciation peaking at just over 27 percent from Q3'03 to Q3'04. Recently, however, weakness in housing starts, existing home sales, and other indicators has become evident throughout much of the West, a trend that is visible in San Diego, where home prices appreciated 5.5 percent from Q2'05 to Q2'06. The recent slowdown in appreciation has been mirrored in home sales. According to the California Association of Realtors (CAR), home sales fell by 28 percent between July 2005 and July 2006 (not seasonally adjusted.) Support for the market comes from an economy based on a highly diverse combination of industries. High-tech and biotech industries thrive, with other core sections of the economy including manufacturing, defense, tourism, and agriculture. Employment has continued to grow while unemployment remained relatively low in July at 4.3 percent (not seasonally adjusted), below year-ago levels of 4.6 percent. The biggest impediment to continued strength in the housing market, however, remains poor affordability. According to CAR, the median home

ANNUAL HOUSE PRICE APPRECIATION RATE - SAN DIEGO



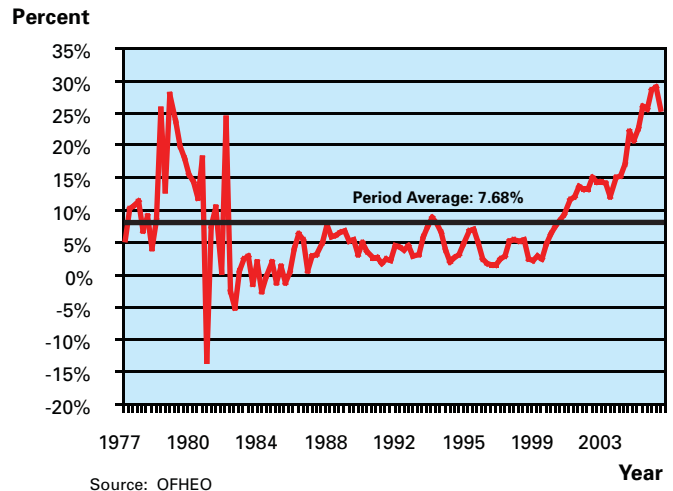
price in the San Diego market stood at \$612,000 in July and the "monthly home payment has increased by 20 percent for many households in the state compared with last year."



## Focus on Four Regions *(continued from page 8)*

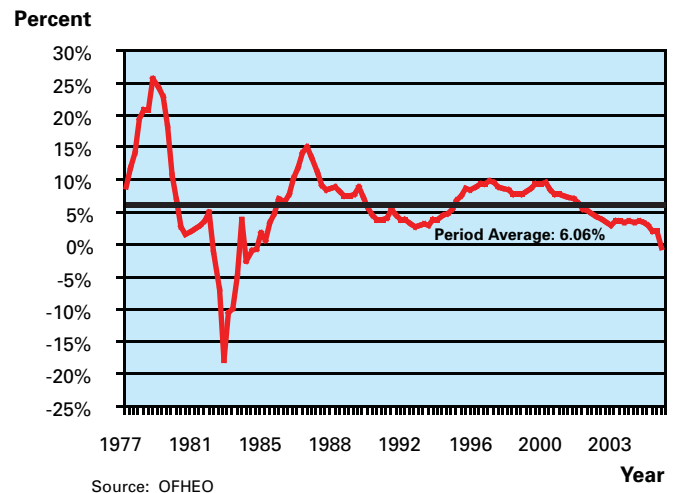
**MIAMI, FL:** With almost 23 percent appreciation from Q2'05 to Q2'06, down slightly from a high of almost 25 percent from Q1'05 to Q1'06, Miami is at a different point in the real estate cycle than San Diego and Boston. Miami's housing market is bolstered by the area's economic strength. Economic expansion in the MSA remains fairly steady, with new and existing home sales continuing to outpace the national average. Home sales have begun to retreat, however, as the state's economy begins to cool due to the national run up in interest rates and energy prices. According to the Florida Association of Realtors, during July home sales in the Miami MSA declined by 38 percent on a year-over-year basis. Employment growth remains strong in the MSA with unemployment rates staying at 3.7 percent in July (not seasonally adjusted), below the July 2005 figure of 4.2 percent, fueled by a diverse economy based in tourism, service, healthcare, and the financial sector. Despite this strength, in Miami as elsewhere appreciation has far outstripped income growth. This cannot continue at its current rate as affordability has dropped to a new low, thus ultimately driving new buyers away from the market and putting downward pressure on home price appreciation.

### ANNUAL HOUSE PRICE APPRECIATION RATE - MIAMI



**DETROIT, MI:** Detroit offers a stark contrast to the other three MSAs described. The Midwestern states are experiencing diverse fortunes, as employment growth in the Great Plains states remains robust, while many of the Great Lake states are losing jobs. Appreciation in the Detroit MSA has been positive over the past nine years (until the most recent) and, at an average of 5.9 percent per year, it's been right in line with the national average of 4 to 6 percent, although it has been steadily slowing from a high of 9.5 percent in early 1997. During this time Detroit's employment picture has worsened, largely due to contractions in the MSA's primary industry, automobile manufacturing. Job growth has been negative for the past eight quarters, and unemployment has remained stubbornly high, hitting 9.1 percent in the first quarter of 2005, and then dropping to 6.1 percent before jumping back up to 7.4 percent in the most recent quarter. This development has had the dual effect of reducing home sales and subsequently prices. As employment continues to contract in the metro area, weakness in the housing market is likely to continue. ♦

### ANNUAL HOUSE PRICE APPRECIATION RATE - DETROIT



## Local Economic Patterns *(continued from page 3)*

### Appreciation

The average home price nationwide appreciated by 10.06 percentage points from Q2'05 to Q2'06, compared to 14.04 percent the prior year. Quarterly appreciation from Q1'06 to Q2'06 was 1.17 percent, down from 2.1 percent the prior quarter. Although home prices did not appreciate as rapidly as in past quarters, 20 MSAs still experienced double-digit year-over-year price appreciation. The highest appreciation rate occurred in **Phoenix**, where home prices increased by 23.2 percent. Phoenix has been the highest appreciating MSA for five consecutive quarters. Only three other MSAs, all in **Florida**, experienced appreciation above 20 percent: **Orlando** at 23.32 percent, **Miami** at 22.6 percent, and **Tampa** at

20.68 percent. Despite healthy appreciation in most areas, 13 of the top 50 MSAs experienced appreciation below the historic norm of 4 percent to 6 percent. Only one MSA, **Detroit**, experienced a year-over-year price decline of -0.6 percent.<sup>1</sup>

### Deceleration

While homes continued to appreciate across most areas, the rate of appreciation slowed in 41 markets. Last quarter, 34 MSAs experienced deceleration, and this time a year ago only seven MSAs saw the rate of appreciation slow. The five areas with the highest rates of deceleration were all in the West. **Sacramento** led the trend with a 17 percentage point drop in year-over-year *(continued on page 10)*



## Local Economic Patterns *(continued from page 9)*

appreciation, to 6.3 percent compared to 23.31 percent a year earlier, followed by **San Diego** (down 14.1 percentage points to 5.46 percent), **Las Vegas** (down 13.1 percentage points to 11.21 percent), **Oakland** (down 12.2 percentage points to 10.55 percent), and **San Jose** (down 11.2 percentage points to 9.8 percent). Of the 18 MSAs with a greater than 50 percent chance of price declines, eight have seen appreciation drop into the single digits. The lowest rate of appreciation among this group was in **Cambridge**, MA, with a year-over-year appreciation rate of 1.53 percent, down from 10.68 percent a year ago.

### Economic Strength

Unemployment remains historically low, with 32 areas experiencing unemployment rates below their long-term average. **Miami** leads this trend with unemployment 2.23 percentage points below its long-term average. Of the 18 areas with unemployment above historical norms, **New Orleans** was No. 1 at 1.37 percentage points, followed by **Memphis** at 1.25 percentage points, and **Detroit** at 1.24 percentage points. **Orlando** led the nation with the lowest unemployment rate at 2.83 percent, which is 1.49 percentage points below the long-term average for that area. **New Orleans** is still experiencing the effects of Hurricane Katrina, with job growth at -35.07 percent in Q2'06. Three other areas experienced negative job growth: **Warren** (-0.36 percent) and **Detroit**, MI (-1.03 percent), and **Newark**, NJ (-0.59 percent). The areas with the highest rate of job growth remain unchanged from last quarter. **Las Vegas** lead the nation with a 5.32 percent growth rate, down slightly from 6.2 percent last quarter, followed by **Phoenix** at 5.2 percent, also down slightly from last quarter's rate of 6 percent.

### Affordability

Affordability dropped in all MSAs, with the biggest decline in **Portland**, OR, which saw a 6.88-point drop to 82.3. Twelve areas saw their affordability ratings drop below 70, considered a threshold below which an area is particularly vulnerable to an economic shock. Last quarter, only eight MSAs had affordability ratings below 70, and this quarter last year none did. Of the 18 MSAs with a greater than 50 percent chance of price declines, half have affordability ratings below 70. Of this group, **Cambridge** has the best affordability rating at 88.05. At 56.78, **Fort Lauderdale** had the

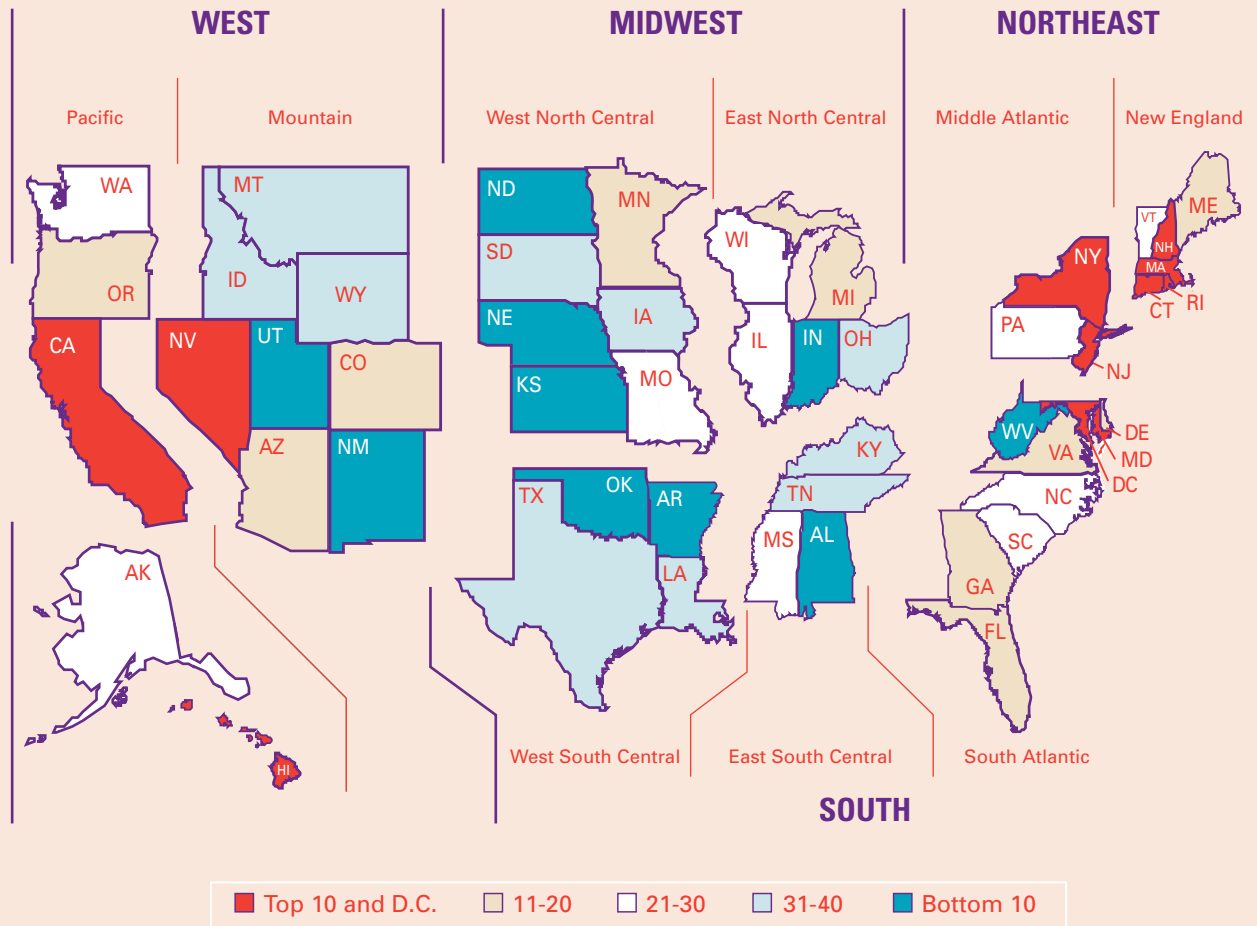
worst. Fort Lauderdale has been the least affordable MSA among the top 50 for four consecutive quarters. During the same quarter last year, **Riverside** was the most unaffordable region with an affordability score of 72.86. Riverside now ranks the No. 2 most unaffordable area, with a score of 58.16, followed by **Los Angeles** at 58.59, and **Miami** at 59.37. **Indianapolis** beat out San Antonio this quarter as the most affordable region at 131.10. San Antonio now has a score of 124.29, compared to 131.04 last quarter.

### Regional Trends

Of the 18 highest risk MSAs, eight are located in **California** and eight are in the Northeast. Five new MSAs tipped over the 50 percent mark: **New York-White Plains** (543), **Fort Lauderdale** (541), **Las Vegas** (540), **Washington, D.C.** (540), and **Newark** (531). **San Diego** takes the top spot for the fourth consecutive quarter, with a score of 603, up from 599 last quarter. This time a year ago, San Diego was No. 2 with a score of 536. **Oakland** moved into the top five riskiest areas to No. 3, and **Boston** dropped out of the top five to No. 7. Boston had been in the top five for the past nine quarters. The other areas in the top five remain the same although their ranks have changed. Eights regions, all between the No. 15 and No. 26 risk positions, saw score increases of at least 100 points. **Phoenix** experienced the greatest increase in risk with a score of 353, up 178 points from last quarter and up 253 points from a year ago. Continued appreciation above 20 percent in this area has led to severe affordability issues despite a very strong economy. The other MSAs with the greatest increases in risk scores were **Virginia Beach** (up 135 to 413), **Orlando** (up 134 to 313), **Baltimore** (up 125 to 32), **Miami** (up 112 to 471), **Tampa** (up 110 to 404), **Washington, D.C.** (up 109 to 540), and **Fort Lauderdale** (up 100 to 541). **Orlando**, **Baltimore**, and **Miami** all face affordability challenges because of continued double-digit price appreciation. **Washington, D.C.** and **Fort Lauderdale** both experienced worsening affordability despite a slowing rate of appreciation. For the ninth consecutive quarter, **Pittsburgh** had the lowest risk score at 61. ♦

<sup>1</sup> OFHEO reports quarterly annualized appreciation while the PMI Risk Index is based on year-over-year appreciation. On a year-over-year basis, only one MSA among the top 50 saw a decline. OFHEO reported declines in nine of the top 50 MSAs from first quarter to second quarter.

# Geographic Distribution of HOUSE PRICE RISK



The above U.S. map depicts in color the geographic distribution of house price risk for all 50 U.S. states and the District of Columbia. The color codes rank order the 10 riskiest states in red (11 including the District of Columbia), followed by the next 10 riskiest states in tan, white, light blue, and aqua. As in the previous three quarters, the Northeastern states and California top our list. All divisions experienced increases in risk this quarter. (This presentation is based on the data for 369 MSAs available in the appendix to ERET posted on the publications page of the newsroom at <http://www.pmigroup.com>.)

**TABLE 1: CENSUS REGION RISK INDEX**

Division	Risk Index
New England	504
Pacific	497
Middle Atlantic	367
South Atlantic	316
Mountain	233
West North Central	169
East North Central	141
West South Central	82
East South Central	82

**Cautionary Statement:** Statements in this document that are not historical facts or that relate to future plans, events or performance are 'forward-looking' statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements include, but are not limited to, PMI's U.S. Market Risk Index and any related discussion, and statements relating to the cooling of the U.S. housing market as well as future economic and housing market conditions. Forward-looking statements are subject to a number of risks and uncertainties including, but not limited to, the following factors: changes in economic conditions, economic recession or slowdowns, adverse changes in consumer confidence, declining housing values, higher unemployment, deteriorating borrower credit, changes in interest rates, the effects of Hurricane Katrina or other natural disasters, or a combination of these factors. Readers are cautioned that any statements with respect to future economic and housing market conditions are based upon current economic conditions and, therefore, are inherently uncertain and highly subject to the changes in the factors enumerated above. Other risk and uncertainties are discussed in the Company's filings with the Securities and Exchange Commission, including our report on Form 10-K for the year ended December 31, 2005 and Form 10-Q for the quarter ended June 30, 2006.

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## METROPOLITAN AREA ECONOMIC INDICATORS STATISTICAL MODEL OVERVIEW

The U.S. Market Risk Index is based on the results of applying a statistical model to data on local economic conditions, income, and interest rates, as well as judgmental adjustments in order to reflect information that goes beyond the Risk Index's quantitative scope. For each Metropolitan Statistical Area (MSA) or Metropolitan Statistical Area Division (MSAD), the statistical model estimates the probability that an index of metropolitan-area-wide home prices will decline over the next two years (eight quarters), with an index value of 100 implying a 10% probability of falling house prices.

The Risk Index uses information on past house price growth and variables measuring local employment and unemployment, as well as local income measures and interest rates. The Risk Index is determined by the following variables: (i) Home Price Appreciation, (ii) Home Price Acceleration, (iii) Employment Growth, (iv) the De-meaned Unemployment Rate, which we define as the difference of the local Unemployment Rate from its average in recent years, and (v) PMI's proprietary Affordability Index.

Home prices are measured with a Repeat Sales Index provided by the Office of Federal Housing Enterprise Oversight (OFHEO). This method follows homes that are sold repeatedly over the observation period and uses the change in the purchase prices to construct a price index. The index is based on data from Fannie Mae and Freddie Mac and covers only homes financed with loans securitized by these two companies. Consequently, this index does not apply to high-end properties requiring jumbo loans.

Periodically, we may re-estimate our model to update the statistical parameters with the latest available data. We also may make adjustments from time to time to account for general macroeconomic developments that are not captured by our model.

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